

## 10.9 WATER REFORM, Northern Territory

| <b>ASSESSMENT, June 1999</b>                                    | <b>Page</b> |
|---|-------------|
| TABLE OF CONTENTS   | 710         |
| TABLE OF ABBREVIATIONS  | 712         |
| <b>B10.9.1 EXECUTIVE SUMMARY</b>                                | 713         |
| <b>B10.9.2 REFORM COMMITMENT: COST REFORM AND PRICING</b>       | 716         |
| <i>10.9.2.1 Cost Recovery</i>                                   | 716         |
| <i>10.9.2.2 Consumption Based Pricing</i>                       | 719         |
| <i>10.9.2.3 Cross-subsidies</i>                                 | 721         |
| <i>10.9.2.4 CSOs</i>  | 722         |
| <i>10.9.2.5 Rates of Return</i>                                 | 723         |
| <i>10.9.2.6 Rural Cost Recovery</i>                             | 724         |
| <i>10.9.2.7 New Rural Schemes</i>                               | 724         |
| <i>10.9.2.8 Devolution of Irrigation Management</i>             | 727         |
| <b>B10.9.3 REFORM COMMITMENT: INSTITUTIONAL REFORM</b>          | 728         |
| <i>10.9.3.1 Separation of Functions</i>                         | 728         |
| <i>10.9.3.2 Commercial Focus</i>                                | 729         |
| <i>10.9.3.3 Performance Monitoring and Best Practice</i>        | 729         |
| <b>B10.9.4 REFORM COMMITMENT: ALLOCATION AND TRADING</b>        | 730         |
| <i>10.9.4.1 Water Entitlements</i>                              | 730         |
| <i>10.9.4.2 Environmental Allocations</i>                       | 733         |
| <i>10.9.4.3 Water Trading</i>                                   | 736         |
| <b>B10.9.5 REFORM COMMITMENT: ENVIRONMENT AND WATER QUALITY</b> | 738         |
| <i>10.9.5.1 Integrated Catchment Management</i>                 | 738         |
| <i>10.9.5.2 National Water Quality Management Strategy</i>      | 740         |

***B10.9.6 REFORM COMMITMENT: PUBLIC CONSULTATION,  
EDUCATION***

742

***Abbreviations***

|          |  |
|----------|--|
| ARMCANZ  | Agriculture and Resource Management Council of Australia and New Zealand |
| ANZECC   | Australian and New Zealand Environment and Conservation Council          |
| AUSRIVAS | Australian River Assessment Scheme                                       |
| CEO      | Chief Executive Officer  |
| COAG     | Council of Australian Governments  |
| CPA      | Competition Policy Agreements  |
| CSIRO    | Commonwealth Scientific and Industrial Research Organisation             |
| CSO      | Community Service Obligation   |
| DLPE     | Department of Lands, Planning and Environment                            |
| EIS      | Environment Impact Statement   |
| ICM      | Integrated Catchment Management  |
| L        | Litre  |
| ML       | Megalitre  |
| NCC      | National Competition Council   |
| NMU      | Non-Metropolitan Urban service provider                                  |
| NWQMS    | National Water Quality Management Strategy                               |
| SCARM    | Standing Committee on Agriculture and Resource Management                |
| SWQMS    | State Water Quality Management Strategy                                  |
| TER      | Tax Equivalent Regime  |
| WACC     | Weighted Average Cost of Capital   |
| PAWA     | Power and Water Authority  |
| WSAA     | Water Services Association of Australia                                  |

## B10 Water Reform

### B10.9 NORTHERN TERRITORY PROGRESS AGAINST COAG WATER REFORM COMMITMENTS

#### B10.9.1 EXECUTIVE SUMMARY

This is an assessment of Northern Territory performance against the strategic framework for water reform. The assessment provides an overview of the reforms implemented and measurement of the reforms against specific commitments in the strategic framework. The assessment considers both legislation and policy initiatives and the application of the initiatives in specific circumstances.

#### PROGRESS ON REFORMS

##### *Cost reform and pricing*

- As regards full cost recovery, Power and Water Authority (PAWA) water and wastewater services did not raise sufficient revenue to meet the lower band of the agreed ARMCANZ pricing guidelines in 1997-98 (the most recent year for which data is available). However, the Council understands that price increases for water services are expected to see revenue improve significantly in 1998-99. Future price paths for water and wastewater are currently being considered as part of a consultancy commissioned by PAWA due to report by September 1999. In addition, a range of reforms have also been initiated to improve PAWA's performance.
- Two part tariffs have been introduced to urban water services. A fixed charge is applied to wastewater services. PAWA is a vertically integrated service provider but the Northern Territory have advised that it has the capacity to provide bulk water on a commercial basis should a demand for this arise. The Council has not received details of internal bulk water charges adopted by PAWA and the Council has not seen information on the separation of costs for the bulk water business.
- Cross-subsidies are currently being considered as part of a consultancy commissioned by PAWA.
- A uniform tariff policy has been applied to water and wastewater businesses which in the past was funded through cross-subsidies and community service obligation (CSO) payments. Changes announced as part of the 1999-00 Budget Papers will significantly refine the Territory's CSO arrangements including moving to full CSO funding of uniform tariffs.
- As noted above PAWA water and wastewater businesses did not recover costs in the most recent year for which data are available and therefore did not achieve a

positive rate of return. However, measures for moving PAWA towards a positive rate of return will be considered as part of a consultancy due by September 1999.

- The Council is satisfied that the Northern Territory has in place appropriate transparent arrangements to ensure the ecological sustainability of new investments in rural water infrastructure. The Council will revisit the Northern Territory's economic viability appraisal processes as part of a supplementary assessment in December 1999 with a view to improving its understanding of how these arrangements operate.

The Council is not satisfied that the Northern Territory has met its commitments with respect to urban water and wastewater cost recovery, rates of return and cross-subsidies. However, as action is being taken to address each of these issues rather than provide a negative assessment the Council will review these issues as part of a December 1999 supplementary assessment. In conducting its December supplementary assessment the Council will revisit the magnitude of the above issues in light of additional information for example, the degree of cost recovery achieved in 1998-99, and the current consultancy's findings with respect to cross-subsidies. Where issues of non-compliance with COAG commitments remain the Council will look for the Northern Territory to provide a timetable for the resolution of these issues. The Council will also seek additional information in relation to bulk water pricing and economic viability assessment procedures for new investments as part of its December 1999 supplementary assessment.

### ***Institutional reform***

- The Northern Territory has achieved progress towards institutional separation between the roles of water resource management, standard setting and regulatory enforcement and service provision. However, a number of issues remain outstanding. The Council has not been advised of the nature of the regulatory functions undertaken by PAWA (including price regulation) or when they will be removed but understands that separation of regulatory functions is an objective of the reform program currently being applied to PAWA. Also, the Council has no information on the price regulation arrangements for water licences.
- The Council is satisfied that appropriate measures have been put in place that will see a significant improvement in PAWA's commercial focus.
- The Northern Territory has met its commitments with respect to performance monitoring and benchmarking.

The Council will revisit the issue of institutional separation as part of a December 1999 supplementary assessment.

### ***Allocations and trading***

- The Northern Territory has established a regional approach to water resource management. However, under current arrangements water property rights are tied to the land listed on the licence and thus the Council is not satisfied that a process for establishing a comprehensive system of water entitlements is in place. The Council notes that measures to address this are being pursued.

- The Northern Territory has not removed all impediments to trade although the Council understands that amendments to the relevant regulations will be made to separate water property rights from land title.
- Northern Territory arrangements acknowledge the environment as a legitimate user of water resources. However, a comprehensive timetable for action to be taken on priority surface and ground water systems has not been provided.

The Council accepts the demand for water trading in the Northern Territory is not likely to be great. However, the Council does see it as important that appropriate arrangements be in place to remove any barriers to resources flowing to their most valuable use. Given the Northern Territory has committed to a deadline to address this issue the Council will look for appropriate arrangements to be in place when it conducts a supplementary assessment in December 1999.

#### *Environment and water quality*

- The Northern Territory has established integrated resource management structures, policies and practices that satisfy tranche two commitments.
- The Northern Territory has made progress in implementing National Water Quality Management Strategy Guidelines.

The Council is satisfied that the Northern Territory has made progress towards a meeting its commitments under this aspect of the framework.

#### *Public education and consultation*

The Council is broadly satisfied that Northern Territory has engaged in appropriate public education and consultation regarding water reform. The Council is of the view however, that care needs to be taken to avoid any conflict of interests where service providers such as PAWA are also responsible for public education programs addressing such matters as water conservation.

### **Assessment**

The Council is of the view that the Northern Territory has made progress against its COAG water commitments although progress in some areas has been slow. In particular, the Council is not satisfied that tranche two commitments have been met in relation to full cost recovery, rate of return, cross subsidies, allocations and trade, and institutional separation. The Northern Territory has also not provided a comprehensive timetable for action to be taken on priority surface and ground water systems. However, the Council also notes the Northern Territory has committed to resolve these issues and in some cases remedial measures have already been initiated. Therefore, rather than recommend a negative assessment the Council will review Northern Territory progress against its COAG commitments in a December 1999 supplementary assessment. The Council will also revisit the bulk water pricing and economic viability appraisal procedures to ensure compliance with tranche two commitments. If progress can not be demonstrated on the matters considered as part of the Council's December 1999 review the Council will consider whether to recommend a deduction of competition payments.

## 10.9.2 REFORM COMMITMENT: COST REFORM AND PRICING

### Major Urbans and Non-Metropolitan Urbans

#### 10.9.2.1 Drawing on the advice of the Expert Group and complying with the ARMCANZ full cost recovery guidelines, jurisdictions are to implement full cost recovery.

Water businesses must price between a floor price which allows for the continuing commercial viability of the system and a ceiling price which incorporates asset values and a rate of return but does not include monopoly profits:

- the floor price includes provision for future asset refurbishment or replacement using an annuity approach where service delivery is to be maintained; and
- the ceiling price includes provision for asset consumption and cost of capital calculated using a weighted average cost of capital (WACC).

Within the band, a water business should not recover more than operational, maintenance and administrative costs, externalities, taxes or tax equivalent regimes (TERs), the interest costs on debt, and dividends (if any) set at a level that reflects commercial realities and simulates a competitive market outcome.

The level of revenue should be based on efficient resource pricing and business costs. In determining prices, community service obligations (CSOs), contributed assets, the opening value of assets, externalities including resource management costs, and TERs should be transparent. The deprival value methodology should be used for asset valuation unless a specific circumstance justifies another method.

### Northern Territory arrangements

#### *Water and wastewater services in the Northern Territory*

The Power and Water Authority (PAWA) is the Northern Territory's largest government owned business activity and provides water sewerage and energy services throughout the Territory. PAWA is the Northern Territory's only public provider of water and sewerage services and provides services to the Territory's four major urban areas (Darwin, Katherine, Tennant Creek and Alice Springs). WASSA facts '98 reported that PAWA provided water services to 24 000 metropolitan residential and 5 000 non residential properties in 1997-98. Wastewater services were provided to 29 000 and 2 000 residential and non residential properties respectively.<sup>407</sup> PAWA's 1997-98 annual report notes that water is also supplied to eighty-five rural and remote communities and 400 outstations while wastewater services were provided to thirty-five rural and remote communities. In total, PAWA provided 38 864 ML of water and collected 15 276 ML of wastewater in 1997-98.

---

<sup>407</sup> **There are a larger number of residential wastewater connections as only one water supply master meter is provided for blocks of flats/units while each property within the strata title blocks of flats/units is counted as a separate wastewater service.**

PAWA's 1998 annual report notes that overall (including water, wastewater and energy businesses) PAWA earned a rate of return of just over 3.5 per cent in 1997-98 and forecasts a return of around 4 per cent in 1998-99. This compares to a estimated cost of capital of around 10 per cent.

The Northern Territory's second tranche report states that a three year forward budgeting process suits the type and scale of public works infrastructure. Asset consumption is also reflected in PAWA annual report through depreciation. Expenditure on operations maintenance and administrative costs as well as interest costs are reported in PAWA's annual report. PAWA also pays TERs. The Council is not aware of any environmental charges paid by PAWA or its customers.

PAWA is a vertically integrated service provider. Water and sewerage businesses are separated into headworks and networks business segments with networks including reticulation infrastructure and headworks including upstream assets such as water extraction, treatment storage assets for water services and trunk sewers, major pumping stations and treatment plants for wastewater services. The Authority's latest annual report notes that under new planning and monitoring arrangements financial information will now be provided for water and wastewater businesses' network and headworks operations.

While the Council does not have separate costs and revenue information for headworks and network business units, financial information on PAWA's water and sewerage business segments overall is provided by Table 10.9.1.

Table 10.9.1: PAWA financial information for water, sewerage and total activities, 1997-98

|   | <i>Water</i>                   |                                | <i>Sewerage</i>                |                                | <i>Total<sup>1</sup></i>       |                                |
|---|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|   | <b>1998</b><br><b>(\$'000)</b> | <b>1997</b><br><b>(\$'000)</b> | <b>1998</b><br><b>(\$'000)</b> | <b>1997</b><br><b>(\$'000)</b> | <b>1998</b><br><b>(\$'000)</b> | <b>1997</b><br><b>(\$'000)</b> |
| Sales   | 27 844                         | 26 692                         | 16 702                         | 16 302                         | 286 748                        | 272 784                        |
| Interest                                      | 173                            | 989                            | 109                            | 317                            | 1 817                          | 2 542                          |
| Other <sup>2</sup>                            | 10720                          | 20 059                         | 4 085                          | 7 226                          | 66 117                         | 61 103                         |
| <b>Total revenue</b>                          | <b>38 737</b>                  | <b>47 740</b>                  | <b>20 896</b>                  | <b>23 845</b>                  | <b>354 682</b>                 | <b>336 429</b>                 |
| Employee expenses                             | 8 015                          | 9 525                          | 4 615                          | 5 355                          | 47 723                         | 45 119                         |
| Energy  | 6 034                          | 5 909                          | 928                            | 948                            | 152 217                        | 147 510                        |
| Other expenses                                | 10 837                         | 14 717                         | 8 313                          | 7 411                          | 60 391                         | 61 202                         |
| Interest                                      | 8 566                          | 4 529                          | 4 321                          | 2 469                          | 29 915                         | 24 290                         |
| Depreciation/<br>amortisation                 | 9 653                          | 9 413                          | 5 976                          | 5 288                          | 54 857                         | 54 216                         |
| <b>Total expenditure</b>                      | <b>43 105</b>                  | <b>4 4093</b>                  | <b>24 153</b>                  | <b>21 471</b>                  | <b>345 103</b>                 | <b>332 337</b>                 |
| <b>Surplus/ deficit before<br/>income tax</b> | <b>(4 368)</b>                 | <b>3 647</b>                   | <b>(3 257)</b>                 | <b>2 374</b>                   | <b>9 579</b>                   | <b>4 092</b>                   |
| Segment assets                                | 329 638                        | 329 441                        | 184 993                        | 175 366                        | 1 088 950                      | 1 109 030                      |

1. Total includes costs and revenues arising from power, water, sewerage, gas, eliminations and investment activities

2. Includes CSOs

Source: PAWA Annual Report 1997-98

As shown above, in contrast to the previous year, water and wastewater businesses did not recover costs in 1997-98 as revenues declined and expenses increased. A share of CSO payments totaling \$51.4 million offset this shortfall somewhat.

The Authority's annual report also notes that PAWA paid total dividends of \$14.8 million to the Government in 1997-98 suggesting a dividend payout ratio of around 25 per cent. PAWA also reported that a dividend payout ratio of 70 per cent is planned for 1998-99. However, WASSA facts '98 do not report this ratio for PAWA's water and sewerage businesses in 1997-98 as they did not earn an after tax profit.

The Council understands that the Government has set PAWA a financial improvement target of \$30 million per year to be achieved within three years. The Council also understands that significant changes to arrangements for providing CSO payments to government business divisions (including PAWA) were announced in the 1999-00 Budget Papers (see below).

Supplementary information provided to the Council by PAWA forecasts an revenue increase for PAWA's water business of around 12 per cent in 1998-99. The price rise driving this increase is also expected to result in a reduction in total demand of 8.5 per cent. Wastewater revenues are forecast to increase by almost 6 per cent. The information provided by PAWA suggests that, assuming constant costs, the forecast increase in revenue is expected to lead to PAWA recovering the cost (including depreciation and interest on debt) of providing water to its four major urban areas in 1998-99. Further, this estimate does not include CSOs.

Forecasts for wastewater suggest that CSO payments will be a significant factor in whether costs are recovered in 1998-99. Only Alice Springs is expect to cover wastewater costs.

The Council notes that future price paths will be given further consideration in light of the consultancy report to be completed by September 1999. Issues covered by the consultancy include:

- impact of the recent revaluation of PAWA assets on current and future costs and financial performance;
- the value of any cross-subsidisation between consumer groups;
- future path ways to achieve positive rates of return including consideration of volumetric charges for sewerage services;
- options for capital consumption charges including annuities; and
- the value of water and wastewater CSOs undertaken by the Authority.

### **COUNCIL COMMENT**

While PAWA's latest annual report states that financial information will now be reported on up and downstream water and wastewater businesses this information has not been made available to the Council. The Council is therefore unable to comment on the level of cost recovery achieved by headworks and networks businesses.

Further, available information suggests that in 1997-98 (the most recent year for which full year data is available) while PAWA recovered costs overall water and wastewater businesses did not earn sufficient revenue to cover:

- operations, maintenance and administrative costs;
- externalities;
- TERs;
- interest on debt; and
- asset consumption (depreciation).

Consequently, it is the Council's view that PAWA water and wastewater businesses were operating below the agreed minimum as defined by AMRCANZ pricing guidelines in 1997-98.

However, the Council notes action already taken by the Northern Territory to promote improved PAWA performance. Further, the Council has been advised that a significant increase in prices is expected to see an improvement in PAWA water business revenues in 1998-99. The Council also notes that future price paths and related issues will be considered as part of a consultancy due to report by September 1999. Therefore, rather than recommend a negative assessment the Council will review this issue as part of a supplementary assessment in December 1999. In conducting this assessment, the Council will look for a timetable to address, as soon as possible, any situations where costs are not being recovered consistent with the agreed ARM CANZ pricing guidelines.

**10.9.2.2 Jurisdictions must implement consumption based pricing. Two part tariffs are to be put in place by 1998 where cost effective. Metropolitan bulk water and wastewater suppliers should charge on a volumetric basis.**

Jurisdictions are to apply two part tariffs to surface and groundwater comprising a fixed cost of access component and a volumetric cost component.

Metropolitan bulk water and wastewater suppliers must establish internal and external charges to include a volumetric component or two-part tariff with an emphasis on the volumetric component to recover costs and earn a positive real rate of return.

**Northern Territory arrangements**

***Urban water***

Since 1995 PAWA's volumetric charges for water have increased by 15 per cent for government customers and 30 per cent for non government customers. WASSA facts '98 reported that in 1998 the volumetric component was made up of a single rate of 53c/kL. A fixed charge was also introduced on 1 July 1998 with the size of the charge being dependent on meter size.

***Wastewater***

WASSA facts '98 reported that in 1998 a fixed charge of \$278 was applied. PAWA's 1997-98 annual report suggests that sewerage charges have been relatively stable

since mid 1996. The Water Supply and Sewerage Act currently provides for PAWA to determine, by notice in the Government Gazette, that all operators in a specified industries must enter into trade waste agreements with the Authority. Currently, the brewing industry is the only industry required to enter into trade waste agreements for discharge to sewers. The Council understands that PAWA is consulting industry concerning the extension of the range of trades that are required to enter into trade waste agreements.

The Council has been advised that the trade waste agreement between PAWA and the Darwin Brewery includes a volumetric charge provided that the trade waste biochemical oxygen demand concentration is inside specified bounds. The Council also understands that from 1 January 2000 trade waste charges will be determined by separate charges for volume, biochemical oxygen demand and suspended solids.

### ***Bulk water***

As noted above, PAWA is a vertically integrated water and wastewater service. Given this, the Territory's annual report stated that metropolitan bulk water suppliers do not operate in the Northern Territory. The Council has been advised however, that PAWA does have the capacity to provide water to individual customers at contracted supply prices. PAWA state that contract supply prices are fully commercial and are based on a rate of return on investment and project specific operational and asset consumption costs. The Council understands that a number of projects currently at the feasibility stage have been supplied with offers of bulk water supply.

### **COUNCIL COMMENT**

PAWA has introduced two part tariffs to urban water supply consistent with COAG water commitments. The Council notes that the uniform charge set by PAWA does not reflect the different costs of providing services to different customers through out the Territory. The costs of supplying various communities are likely to vary significantly. The Council also understands that uniform prices are currently funded through a CSO payment and cross-subsidies. This issue is assessed under section 10.9.2.3 and 10.9.2.4 of this assessment.

The Council is satisfied that current wastewater arrangements met second tranche commitments but will review the outcomes of current consultation on the extension of trade waste agreements as part of its third tranche assessment.

The Council has not been provided with any evidence to support PAWA's claim that it has the capacity to charge appropriate bulk water prices to external customers should a demand for these services arise. The Council notes the statement in PAWA's 1998 annual report that financial information will now be prepared on up and downstream components for water services but has not been provided with any details regarding the size or nature of internal charges for bulk water services.

The Council believes that the identification of bulk water costs, and charging for these costs at an appropriate rate and in an appropriate manner can be a catalyst for change in the water industry including increasing competition in the supply of water. It provides for increased transparency and more efficient pricing and allocation of resources. It also provides a mechanism to assist in identification of cross-subsidies

between customer classes. The Council notes that the process of identifying bulk water charges may, most appropriately, be monitored by an independent price regulator. The Council will revisit these issue to establish whether the Northern Territory has the necessary cost information and pricing structures in place to identify bulk water charges as part of a December 1999 supplementary assessment.

### **10.9.2.3 Jurisdictions are to remove cross-subsidies, with any remaining cross-subsidies made transparent (published).**

For the purposes of the framework a cross subsidy exists where a customer pays less than the long run marginal cost and this is being paid for by other customers. An economic measure which looks at cross-subsidies outside of a Baumol band, which sets prices between incremental and stand alone cost, is consistent with the COAG objective of achieving economically efficient water usage, pricing and investment outcomes. To achieve the COAG objective, potential cross-subsidies must be made transparent by ensuring the cost of providing water services to customers at less than long run marginal costs:

- is provided as a subsidy, a grant or CSO; or
- arises from a source other than other customer classes.

#### **Northern Territory arrangements**

PAWA is a vertically integrated provider of water, wastewater and energy services to customers throughout the Northern Territory. Consequently, there would appear to be potential for significant cross subsidisation between the Authority's activities.

The Council notes that according to PAWA's latest annual report inter-segment prices (for example, prices charged for energy used by water businesses) are determined on a commercial basis. PAWA's annual report also notes that each of the major businesses have recently been valued so as to clearly identify the key 'value drivers' for each business.

The existence of a uniform charge suggests the potential for significant cross-subsidies between high and low cost customers. The Council also understands that in the past the uniform price has been funded through a combination of cross-subsidies and CSO payments. But that the 1999-00 Budget will see full CSO funding of uniform prices.

#### **COUNCIL COMMENT**

Information provided by the Northern Territory notes that the value of cross-subsidies between customer groups will be assessed as part of a consultancy report expected to be completed by September. A significant potential source of cross-subsidies, the uniform price policy, was through a mix of cross-subsidies and CSO payments. The Council's view is that using non transparent cross-subsidies to fund non commercial activities is not consistent with the agreed framework. However, the Council notes that measures announced in the 1999-00 Budget Papers will see non commercial activities be fully funded through a transparent CSO.

The Council currently does not have sufficient information to be able to recommend that the Northern Territory has complied with its second tranche commitments with respect to cross-subsidies. While the Council is satisfied that full CSO funding of uniform tariffs should address the Council concerns regarding the potential for non transparent cross subsidies, the Council requires more information on the range and magnitude of any other cross-subsidies within PAWA. The Council will therefore revisit this issue in a December 1999 supplementary assessment in light of the recommendations of the above consultancy but notes that the Northern Territory has taken action towards meeting its commitments in this area.

**10.9.2.4 Where service deliverers are required to provide water services to classes of customers at less than full cost, this must be fully disclosed and, ideally, be paid to the service deliverer as a community service obligation.**

All CSOs and subsidies must be clearly defined and transparent. The departure from the general principle of full cost recovery must be explained. The Council will not make its own assessment of the adequacy of the justification of any individual CSO or cross-subsidy but will examine CSOs and cross-subsidies in totality to ensure they do not undermine the overall policy objectives of the strategic framework for the efficient and sustainable reform of the Australian water industry.

**Northern Territory arrangements**

In reporting to the Council on progress in competitive neutrality the Territory Government state that its CSO policy has been tightened and made more transparent to ensure the government is getting value for money and that GBEs are being compensated for the CSOs they provide. The Council understands that this has involved establishing a process for:

- negotiating a purchaser provider agreement wherever possible and funded on a per unit basis; and
- as part of the Budget, annually reviewing the amounts of each CSO purchased to justify the outlays against competing alternatives.

PAWA's latest annual report identifies two main CSOs, uniform tariffs, and Aboriginal Essential Services. The uniform tariff policy results in all customers paying the same rate for water and sewerage services regardless of where they live and the cost of how much it costs to deliver services.

Aboriginal Essential Services include provision of potable water to eighty-five rural and remote communities and four hundred outstations and wastewater services to thirty-five rural and remote communities. A resource conservation program is also included among these services (see section 10.9.6.1).

The Northern Territory has advised the Council that PAWA's current CSO arrangements are to be reviewed as part of the consultancy to be completed by September.

## **COUNCIL COMMENT**

The Council's view is that policies such as a uniform price may be consistent with the agreed COAG water framework provided that the cost does not undermine the principle of full cost recovery and is funded through an appropriately funded CSO. In the past, the uniform price was part funded through a transparent CSO, with the difference between CSO funding and the total cost of the policy made up through non transparent cross-subsidies, which was not consistent with the agreed framework.

The Council is satisfied that refinements to the Territory's CSO framework announced in the 1999-00 Budget papers will promote the objectives of the COAG water framework. The Council also supports the decision to move to full CSO funding of uniform tariffs. The Council is satisfied that tranche two commitments in respect of CSO have been met.

### **10.9.2.5 Publicly owned supply organisations should aim to earn a real rate of return on the written down replacement cost of assets for urban water and wastewater.**

Jurisdictions are to have achieved progress toward a positive real rate of return on assets used in the provision of all urban water supply and wastewater services.

#### **Northern Territory arrangements**

As noted above, overall PAWA earned a positive rate of return in 1997-98. However, neither water nor wastewater business recovered costs consistent with the lower bound of the ARMCANZ pricing guidelines in the latest year for which data are available. The Council also has no information on the level of cost recovery achieved by bulk water activities.

## **COUNCIL COMMENT**

The Council is of the view that water and wastewater businesses did not meet the lower band in the latest year for which data is available. Though PAWA has been set a target of achieving a financial improvement amounting to \$30 million per annum after three years. Further, the Council has been provided with PAWA forecasts stating that price increases are expected to lead to a significant increase in revenues in 1998-99. As noted above a consultancy due in September will also consider pathways for the Authority to achieve a positive rate of return. Therefore, given that action is being taken to address current cost recovery levels, while the reform commitment has not been met, the Council will review progress again as part of a supplementary assessment in December 1999 in light of the above consultancy, rather than provide a negative assessment.

## Rural Water Supply and Irrigation Services

**10.9.2.6 Where charges do not currently cover the costs of supplying water to users (excluding private withdrawals of groundwater),<sup>408</sup> jurisdictions are to progressively review charges and costs so that they comply with the principle of full cost recovery with any subsidies made transparent.**

Jurisdictions should provide a brief status report, consistent with advice provided to ARMCANZ, on progress towards implementation of pricing and cost recovery principles for rural services.

The NCC will assess jurisdictions as having complied with the pricing principles applicable to rural water supply where jurisdictions:

- have achieved full cost recovery; or
- have established a price path to achieve full cost recovery beyond 2001 with transitional CSOs made transparent; or
- for the schemes where full cost recovery is unlikely to be achieved in the long term, that the CSO required to support the scheme is transparent; and
- cross-subsidies have been made transparent

### Northern Territory arrangements

The Northern Territory have indicated that proposed amendments to the Water Act and Regulation will require that full cost recovery will be made for water resource regulation, monitoring and remediation through: charges on licence holders; in-kind contribution from licence holders; transparent government subsidy/CSO.

### COUNCIL COMMENT

The Council notes that this is a tranche three issue and will assess rural pricing in the lead up to its third tranche assessment.

**10.9.2.7 Jurisdictions are to conduct robust independent appraisal processes to determine economic viability and ecological sustainability prior to investment in new rural schemes, existing schemes and dam construction. Jurisdictions are to assess the impact on the environment of river systems before harvesting water.**

Policies and procedures must be in place to robustly demonstrate economic viability and ecological sustainability of new investments in rural schemes prior to development. The economic and environmental assessment of new investment must be opened to public scrutiny.

---

<sup>408</sup> Private withdrawals of groundwater include private providers and small co-operatives who extract water from bores for private use, but does not include large co-operative arrangements (including trusts) that act as wholesalers supplying water as a commercial venture and that are subject to control or directions by government or receive substantial government funding.

Jurisdictions must demonstrate a strong economic justification where new investment is subsidised.

## **Northern Territory arrangements**

### ***Economic viability***

The Territory's 1998 annual report states that for the majority of cases the economic viability of future investment projects will remain dependent on CSOs. The Council has been advised that all PAWA capital works proposals are subject to engineering optimisation and economic evaluation through the Capital Works Evaluation Committee. This committee consists of senior power, water and sewerage planning engineers and economists. Proposals are then ranked in order of priority for inclusion in the Forward Works (three year) Budget. The Council has been advised that PAWA's capital works program is based on demand projections as far out as 100 years.

### ***Ecological sustainability***

Information supplied to the Council by Department of Lands, Planning & Environment (DLPE) indicates that 90 per cent of streamflow is not divertible due to topography, seasonality of runoff and land tenure constraints due to National Parks and Aboriginal land. Major regional water resource development to date in the Northern Territory has occurred in four areas. With a current combined surface and groundwater demand for urban and irrigation usage of: Darwin 52 000 ML/year; Katherine 23 000 ML/year; Alice Springs 13 000 ML/year; and Ti Tree 2 100 ML/year. Water use in the remainder of the Northern Territory accounts for a further annual demand of 6 000 ML/year. Water demand in Alice Springs and Ti Tree is satisfied entirely from groundwater sources as is half of Katherine's supply.

Overall the demand on water resources relative to total available resources is likely to remain low with total demand for 2020 predicted to be 230 350 ML/year with 164 150 ML/year to be satisfied from groundwater sources. However, the Northern Territory notes that it is likely that some individual local water resources may experience high demands as a consequence of developing irrigated agricultural industry.

The Northern Territory states that significant future irrigation with Ord Stage 2 carries no environmental water allocation issues for Northern Territory rivers. The Northern Territory also notes that significant dam construction may occur in the year 2025 for Darwin water supply and that appropriate assessments for environmental water requirements will be undertaken as part of ongoing regional water allocation planning.

The Council has been advised that all major projects are subject to the Environmental Assessment Act and are required to provide an environmental impact statement (EIS) for public comment. The Northern Territory state that it is established practice for EIS processes to be based on comprehensive baseline environmental investigation and analysis prior to public release with on going work for finalisation based on public comment. The Northern Territory notes that regional water resource management strategies, beneficial use declarations and integrated catchment management plans (discussed below) in advance of future investment offer the prospect of vastly

improved frameworks in which to develop an EIS. The Council also understands that all non riparian surface and ground water extraction must be licensed as must all bore extractions exceeding 15 L/second. In addition, all bores in declared groundwater management areas must also be licensed.

In their second tranche report the Northern Territory states that:

‘The principle of adequately meeting environmental water requirements of river systems is accepted but will be subject to the outcomes of consultatively based regional water allocation planning which may result in environmental water provisions not always meeting environmental water requirements.’ (p46)

The Northern Territory further notes that this view reflects that trade-offs will need to be made between competing demands. Recognising that circumstances may arise where actual environmental provision does not meet the environmental water requirement in part of a catchment because there is a higher economic, social or regional value legitimately placed on other uses of the water resources.

## **COUNCIL COMMENT**

The Council accepts that water resources in the Northern Territory are relatively undeveloped and that total demands placed on resources is low relative to their total availability. However, in assessing progress against this criteria the Council has looked for processes to be in place that will ensure that future investments are made on transparent, ecologically sustainable and economically viable basis so as to avoid the problems experienced in some other jurisdictions.

Given the above, the Council notes that existing arrangements require an EIS to accompany major projects and that this process will be bolstered when the regional strategies have been revised. However, the Council is potentially concerned with the statement made in the Northern Territory’s second tranche report that regional water allocation planning may result in environmental provisions that may not be consistent environmental requirements. This is particularly the case given that the Territory’s statement that some water resources may experience high demands as a consequence of developing irrigated agricultural industry. The Council acknowledges the importance of balancing the needs of competing users and that any development would have some impact on the environment and this can not be avoided. However, the Council is also of the view that maintenance of essential ecological processes and biodiversity of water dependant ecosystems should be given a very high priority. To this end the Council notes that the environmental values have been identified in ten beneficial use declarations for rivers and catchments.

The agreed COAG framework states that future investments in new schemes or extensions to existing schemes should only be undertaken after transparent appraisal has indicated that it is economically viable. While there may be some instances where a strong public benefit justification may see assistance provided to particular projects for example supplying potable water to a rural or remote area, this should be the exception rather than the norm.

Therefore, given the above, the Council is satisfied that the Northern Territory has met its second tranche commitments with respect to assessing the ecological sustainability of new rural investments. However, the Council will revisit the Northern Territory's economic viability appraisal processes as part of a supplementary assessment in December 1999 with a view to improving its understanding of how these arrangements operate.

**10.9.2.8 Jurisdictions are to devolve operational responsibility for the management of irrigation areas to local bodies subject to appropriate regulatory frameworks.**

All impediments to devolution must be removed. Jurisdictions must demonstrate that they are encouraging and supporting devolution of responsibility, including through education and training.

**Northern Territory arrangements**

The Northern Territory's 1999 report to the Council states that there are no publicly funded or operated irrigation areas in the Northern Territory. The Territory also note that no publicly owned irrigation areas are expected in the foreseeable future with private investment expected to continue as the sole agent of irrigation development.

**COUNCIL COMMENT**

No assessment required for the second tranche.

### **10.9.3 REFORM COMMITMENT: INSTITUTIONAL REFORM**

#### **Institutional Role Separation**

**10.9.3.1 As far as possible the roles of water resource management, standard setting and regulatory enforcement and service provision should be separated institutionally by 1998.**

The NCC will look for jurisdictions, at a minimum, to separate service provision from regulation, water resource management and standard setting. Jurisdictions will need to demonstrate adequate separation of roles to minimise conflicts of interest.

#### **Northern Territory arrangements**

The Northern Territory state that PAWA is the Territory's sole service provider with the Department of Lands, Planning & Environment responsible for resource management and regulation. The Northern Territory also note that there is Ministerial separation between these agencies.

The Council has not been advised of the regulatory functions still undertaken by PAWA but understands that separation of these functions is an objective of PAWA's current reform program. The Council understands reform options being considered include the introduction of a new regulator for pricing, competition and standards.

#### **COUNCIL COMMENT**

The Council supports moves to establish an independent pricing regulator. However, the Council does not have sufficient information to be satisfied that the Northern Territory has complied with its institutional separation commitments. In particular, it has not been advised of the regulatory functions still undertaken by PAWA or when they will be separated from its service provision role. The Council notes however, that separation of these functions is a specific objective of the reform program currently being applied to PAWA. The Council has also not been provided with information on price setting arrangements for water licences. However, given that reform is taking place in these areas, rather than provide a negative assessment, the Council will review progress on these issues as part of a December 1999 supplementary assessment.

**10.9.3.2 Metropolitan service providers must have a commercial focus, whether achieved by contracting out, corporatisation, privatisation etc, to maximise efficiency of service delivery.**

Incorporate appropriate structural and administrative responses to the CPA obligations, covering legislation review, competitive neutrality, structural reform.

#### **Northern Territory arrangements**

The Council understands that PAWA has been set a target of achieving a financial improvement amounting to \$30 million per annum after three years. The Council also understands that a Reform Implementation Working Group is now in place with the specific objective of improving working practices to achieve efficiencies. The

Northern Territory's 1999-00 Budget Paper No. 3 outlines a range of measures designed to improve PAWA's commercial focus. These include increased use of competitive tendering where appropriate with tender contracts being output based, moving to staffing levels that reflect best practice and restructuring PAWA along product lines.

### **COUNCIL COMMENT**

The Council is satisfied that tranche two commitments under this aspect of the framework have been met.

### **Performance Monitoring and Best Practice**

#### **10.9.3.3 ARMCANZ is to develop further comparisons of interagency performance with service providers seeking best practice.**

Jurisdictions have established a national process to extend inter-agency comparisons and benchmarking. Benchmarking systems are to be put in place for the NMU and rural sectors, "WSAA facts" is to be used for major urbans, and service providers are to participate.

The Council will accept compliance for the three sectors subject to the Productivity Commission confirming consistency with the Report of the Steering Committee on National Performance Monitoring of Government Trading Enterprises, "*Government Trading Enterprises Performance Indicators*" (Red Book). The Productivity Commission has already confirmed the consistency of "WSAA Facts" for the major urbans. The NCC recognises the first reports for the NMU and rural sectors are likely to be a rough cut in the initial years.

### **Northern Territory arrangements**

PAWA contributes performance indicator information on metropolitan services to the WSAA Facts performance monitoring process. The Council also notes that Alice Springs non-metropolitan services will be included in future inter jurisdictional performance monitoring.

### **COUNCIL COMMENT**

The Council is satisfied that the Northern Territory has met this aspect of tranche two commitments.

## **10.9.4 REFORM COMMITMENT: ALLOCATION AND TRADING**

### **10.9.4.1 There must be comprehensive systems of water entitlements backed by separation of water property rights from land title and clear specification of entitlements in terms of ownership, volume, reliability, transferability and, if appropriate, quality.**

A 'comprehensive' system requires that a system of establishing water allocations which recognises both consumptive and environmental needs should be in place. The system must be applicable to both surface and groundwater.

The legislative and institutional framework to enable the determination of water entitlements and trading of those entitlements should be in place. The framework should also provide a better balance in water resource use including appropriate allocations to the environment as a legitimate user of water in order to enhance/restore the health of rivers. If legislation has not achieved final parliamentary passage, the NCC will recognise the progress towards achieving legislative change during its assessment of compliance.

#### **Northern Territory arrangements**

The Northern Territory's 1999 report to the Council states that water allocation systems are provided at regional scale in the form of declared allocation (or share) of assessed water resources to sectors of beneficial use - with beneficial use sectors being identical to the environmental value categories currently used in the National Water Quality Management Strategy. Consultation leading to beneficial use declarations is made with major stakeholders and through open invitation public meetings before recommendations are made to government.

Since 1994 beneficial use declarations have been made for eleven surface freshwater resources and two groundwater resources. For the surface water resources aquatic ecosystem protection was declared as a beneficial use for ten resources, recreation and aesthetics for four resources, agricultural water supply in three cases and stock water for two resources. The beneficial uses for the two groundwater resources were each declared as agricultural water use and raw water for drinking water supply.

Regional water allocation plans covering surface and groundwater resources have been in place for the greater Darwin region, Katherine local area and Ti Tree Basin since the early 1990s. The Council understands that reviews of the Ti Tree Basin and Darwin allocation plans are expected in 1999 while the Katherine local area plan will be extended to a regional plan also in 1999. The Council also understands that a regional plan for Alice Springs will be completed in the year 2000.

The Northern Territory has reported that administrative arrangements and consultative processes to support formal declaration of water allocations have been trialed successfully in the Ti Tree Basin. Trials will continue during 1999 in the Darwin and Katherine areas, leading to formal declaration of water allocations.

### ***Licences***

In the Northern Territory entitlements are provided in the form of licences for both surface and groundwater resources.

All non riparian surface water extraction must be licensed as must all bore extractions exceeding 15 L/second. In addition, all bores in declared groundwater management areas must also be licensed.

Licences for surface and groundwater resources are granted within the assessed sustainable yield identified in regional allocation plans. However, under current arrangements licences do not separate water property rights from land tenure. Further while licences specify ownership and maximum extraction volumes they do not specify reliability, transferability or quality. The Council understands that amendments to regulations made under the *Water Act 1992* to facilitate trading are expected in 1999 and will address the structure of licenses.

The Northern Territory has also indicated that:

- the current prescribed form of licence gives the regulator freedom to attach any specific conditions considered necessary, and cite the example where in the recent grant of licences for public water supply bores in Darwin a special condition was written into the licence to allow use of extracted water on any land;
- in developing licence conditions for the taking of groundwater for irrigation in the Ti Tree region the proposed new arrangements include:
  - a ten year term;
  - provisions for use from any bore anywhere within the designated area;
  - extensive annual reporting against each bore;
  - the ability to amend licences at any time;
  - provisions to request licence renewal within two years of expiry; and
  - trading a licence with other irrigators within the designated area, subject only to the requirements that the seller completes all normal annual reporting and the buyer provides a list of all bores to be pumped;
- the current *Water Act 1992* requires extraction licences to be granted in the form prescribed in the Water Regulations. The amendments to these regulations will include changes to Form 13 (Licence to Take or Use Surface Water) and Form 15 (Licence to Take Groundwater) so as to:
  - remove the Term/Condition 1, which requires that the water taken must only be used on the land in respect of which the licence is issued, and
  - replace Term/Condition 1, with the requirement, in the instance that the licence is traded, for the prior licence holder to immediately complete all

reporting specified in the licence and notify the Controller of the name and address of the new licence holder;

- under the proposed amendments extraction licences will be tradable but only within beneficial use sectors and within the water control district and, in some cases only, within specified areas of the district.

### **COUNCIL COMMENT**

As noted earlier, the Council understands that under existing arrangements the environment is treated as one of a number of competing users of the resource's sustainable yield. Further, the Council understands that this may lead to situations where allocations for the environment are not sufficient to meet ecological requirements. The Council's view is that sustainable resource use means maintaining the health of the resource rather than just its sustainable yield.

DLPE has provided an outline of ground water allocation arrangements being developed for the Ti Tree region. Information provided suggests: that there has been no comprehensive attempt to quantify sources of recharge; proposed harvesting rates appear to be based on an assumption concerning the quality of the water needed by the environment which possibly requires further work to determine its validity; and no information on how the 20 per cent allowance for the environment, riparian pastoral use and other users was determined. The Council understands that a regional strategy currently in draft form is expected to be implemented over the next five years to address the issues of identifying recharge and assessment of groundwater dependent ecosystems. The strategy is expected to be finalised and initiated by October 1999.

Under the agreed COAG framework, water property rights are to be separated from land tenure and clearly specify reliability, transferability and, if appropriate, quality. Available information suggests that the Northern Territory has not met this commitment because under current arrangements while licences are issued to an individual the use of the licence is tied to the land specified in the licence. The Council notes however, the potential for exemption of this through special condition on the licence as was recently done for in the grant of licences for public water supply in Darwin.

The Council's view is that given that virtually all licences are currently tied to a particular piece of land second tranche commitments have not been met in respect of developing a comprehensive entitlements system. However, the Council notes that the Northern Territory has provided details of measures to resolve this issue and notes the Northern Territory's expectation that changes to existing arrangements will be in place by the end of 1999. The Council also acknowledges that there is unlikely to be significant demand for trade in the near future. Consequently, rather than provide a negative assessment the Council will review this issue as part of a December 1999 supplementary assessment and again if needed by June 2000.

**10.9.4.2 Jurisdictions must develop allocations for the environment in determining allocations of water and should have regard to the relevant work of ARMCANZ and ANZECC.**

**Best available scientific information should be used and regard had to the inter-temporal and inter-spatial water needs of river systems and groundwater systems. Where river systems are overallocated or deemed stressed, there must be substantial progress by 1998 towards the development of arrangements to provide a better balance in usage and allocations for the environment.**

**Jurisdictions are to consider environmental contingency allocations, with a review of allocations five years after they have been initially determined.**

Jurisdictions must demonstrate the establishment of a sustainable balance between the environment and other uses. There must be formal water provisions for surface and groundwater consistent with ARMCANZ/ANZECC "*National Principles for the Provision of Water for Ecosystems*".

Rights to water must be determined and clearly specified. Dormant rights must be reviewed as part of this process. When issuing new entitlements, jurisdictions must clarify environmental provisions and ensure there is provision for environmental allocations.

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

It is noted that for the third tranche, States and Territories will have to demonstrate substantial progress in implementing their agreed and endorsed implementation programs. Progress must include at least allocations to the environment in all river systems which have been over-allocated, or are deemed to be stressed. By the year 2005, allocations and trading must be substantially completed for all river systems and groundwater resources identified in the agreed and endorsed individual implementation programs.

**Northern Territory arrangements**

In their second tranche report the Northern Territory state that there are no over allocated or stressed water resources. The Northern Territory has advised that, currently, environmental needs and sustainable yields are determined as follows:

- limit extraction from unregulated streams (all but 3 of all Northern Territory rivers) to 20 per cent of low dry season instantaneous flow rate; and
- limit groundwater extraction so as not to reduce water table levels and groundwater flow rates in groundwater dependent ecosystems.

In information provided to the Council the Northern Territory indicate that the *Water Act 1992* and Regulations place monitoring conditions on all surface water licences

and groundwater extraction licences for bores exceeding 15 L/second delivery. In addition, all water drillers are required, as part of their licence, to submit yield data on all bores drilled. Where necessary, mechanisms for more intensive resource management will be triggered through the regional water resource management plans and catchment management plans. These strategies and plans provide (through licensing conditions, and monitoring and assessment programs) the necessary data collection and analysis to verify the allocation.

The Northern Territory note that:

- in all river systems, other than the Katherine and Darwin rivers, water harvesting is low and likely to be ecologically sustainable; and
- the Darwin River Dam is high in the catchment and intercepts most of the upper catchment streamflow in a river which is seasonally dry. There has been a dry season release policy in place for the past 10 to 15 years and there are no reports of downstream environmental impact.

The Northern Territory states that research has been targeted to areas where development pressure is most likely over the next five to ten years. For example, the Council understands that eleven research proposals for the Daly River Catchment are currently under development for commencement in 1999 due to expectations of increasing agricultural development. The research projects are expected to take up to two years to complete. Current work to review the existing Darwin Regional Water Resource Management Strategy will also identify programs to determine environmental water requirements, through five research proposals for the Darwin Rural area are due for commencement in 1999. The Northern Territory states that this area is under increasing development pressure for horticulture and rural residential use, all based on private bore supplies with potential in aggregate to impact on groundwater sustained ecosystems.

The Northern Territory's 1999 report also notes that the groundwater allocation planning trial nearing completion in the Ti Tree Basin sets aside 20 per cent of assessed water resources as an environmental contingency allocation, within a ten year plan, matched by capped licensing, to be reviewed after five years. Reviews of the greater Darwin regional plan and extension of the Katherine area plan in 1999 will incorporate environmental contingency allocations in a similar manner to that trialed in the Ti Tree Basin. However, the Council has been advised that the allocations relevant to the two northern, tropical regions are expected to be greater than the 20 per cent applied in the desert region at Ti Tree.

The Northern Territory has provided brief details of factors involved in setting the allocation and regulatory framework. This involves: determining resource availability and beneficial use requirements which includes environmental uses; development of a regional allocation plan which is claimed to share regional resource availability among beneficial users so as to satisfy principles of ecologically sustainable development; and granting and assigning rights to beneficial users. The Northern Territory also indicates that within two years it anticipates environmental water provisions would be established where existing extraction licences exceed 5 per cent of median flows. This occurs in the Daly and Adelaide River catchments. The Council understands that priority has been given to the Daly River and a research

program has been proposed which will assist in determining environmental water requirements.

### **COUNCIL COMMENT**

In evaluating progress against this aspect of the framework the following principles taken from the *National Principles of the Provision of Water for Ecosystems* are relevant:

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

In setting limits on the volume of water to be extracted from water courses, the Northern Territory has recognised that consumptive use has the potential to impact on ecological values.

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

The Northern Territory appears to be at the early stages of developing a scientific basis for determining environmental water requirements. Research projects are planned to go ahead in 1999 to begin to address this issue.

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

Expected amendments to the *Water Act 1992* will provide for the establishment of water control districts specifically for resource management purposes. The Northern Territory states that these amendments will require the allocation of resources among beneficial use sectors (of which the environment is one) consistent with a declared regional water allocation plan.

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

As noted earlier in the Northern Territory arrangements 'outcomes of consultatively based regional water allocation planning which may result in environmental water provisions not always meeting environmental requirements'. While the Council understands that the water allocation process seeks to balance the competing uses of water, it is of the view that maintenance of essential ecological process and biodiversity of water dependant ecosystems should be given a very high priority.

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

The Council notes that in DLPE's view there are no stressed rivers in the Northern Territory and that the majority if not all of current water commitments are sustainable

which indicates that there should be no instances where environmental requirements cannot be met.

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

The Council notes that compliance with this principle will be promoted through planned amendments to the *Water Act 1992* that will allow the establishment of water control districts with the explicit purpose of water resource management in accordance with water allocation plans.

The Council accepts that with the present level of development the Council suggests that few streams in the Northern Territory are likely to be stressed. However, the Council notes the very limited data is currently available on the environmental requirements of the Territory's water resources. The Council also notes that funding for the proposed research program for the Daly River and Darwin area has not been finalised and has concerns regarding progress towards development of methods for determining environmental water requirements should the proposed research not proceed.

At the 14 January Tripartite meeting it was agreed that jurisdictions would provide the NCC with individual implementation programs outlining a priority list of river systems and groundwater resources. The Northern Territory has not provided such a list as their research program is yet to be finalised. The Council will revisit this and the above matter as part of a supplementary assessment in December 1999.

The Council will monitor the passage of amendments to the *Water Act 1992* and Regulations to give legal recognition to the allocation plans. Future assessments would be greatly assisted by draft and when available final versions of water resource policy strategies, a water resource planning strategies, a water resource regulation strategies, a water resource assessment strategies, a water resource management strategies, and a regional water allocation plans. The Council will review completed water management strategies, when available, to ensure that appropriate provisions have been made for the environment in the lead up to its third tranche assessment.

**10.9.4.3 Arrangements for trading in water entitlements must be in place by 1998. Water should be used to maximise its contribution to national income and welfare.**

**Where cross border trade is possible, trading arrangements must be consistent between jurisdictions and facilitate trade. Where trading across State borders could occur, relevant jurisdictions must jointly review pricing and asset valuation policies to determine whether there is any substantial distortion to interstate trade.**

Jurisdictions must establish a framework of trading rules, including developing necessary institutional arrangements from a natural resource management perspective to eliminate conflicts of interest, and remove impediments to trade. The Council will assess the adequacy of trading rules to ensure no impediments. If legislation has not achieved final parliamentary passage, the Council will recognise the progress towards achieving legislative change during its assessment of compliance.

As noted above, for the second tranche, jurisdictions should submit individual implementation programs, outlining a priority list of river systems and groundwater resources and detailed implementation actions and dates for allocations and trading to the Council for agreement, and to Senior Officials for endorsement. This list is to be publicly available.

Cross border trading should be as widespread as possible. Jurisdictions are to develop proposals to further extend interstate trading in water.

### **Northern Territory arrangements**

#### ***Intrastate trade***

Trading is not possible under current arrangements given that licences are currently tied to the land listed on the licence (unless exempted by a special conditions included on the licence). However, the Council understands that changes will be made to the relevant regulations in consultation with water users to facilitate water licence trade. These changes are expected by August 1999.

The Northern Territory's 1999 annual report states that the market for trading is likely to be small given that water users are mainly widely dispersed, small scale, involved in privately owned and operated irrigation developments, drawing on groundwater. All licenses are within the sustainable yield limits of the water resource.

#### ***Interstate trade***

In respect of interstate trading the Northern Territory Government note that no cross-border developments exist although Stage 2 of the Ord River project should establish a totally privately operated cross-border irrigation scheme after the year 2000. The Territory Government states that work is in progress with the Western Australian Government to ensure consistent arrangements.

### **COUNCIL COMMENT**

The Council acknowledges that the demand for water trading is likely to be limited in the near future. However, the Council's view is that where trading is to be introduced, it should be done consistent with COAG commitments. As noted above water property rights are currently tied to the land listed on the licence and therefore the Northern Territory has not removed all the barriers to trade. The Council understands that amendments to the *Water Act 1992* will see this issue resolved by August 1999. The Council will review progress on this matter as part of a December 1999 supplementary assessment.

The Council notes Northern Territory's commitment to ensuring consistent water pricing and allocation arrangements between Western Australia and the Territory for the purposes of the Stage 2 of the Ord River project. The Council will look for continued progress on this matter throughout the third tranche.

## **10.9.5 REFORM COMMITMENT: ENVIRONMENT AND WATER QUALITY**

### **10.9.5.1 Jurisdictions must have in place integrated resource management practices, including:**

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

The Council will examine the programs established by jurisdictions to address areas of inadequacy. Programs would desirably address such areas as government agency coordination, community involvement, coordinated natural resource planning, legislation framework, information and monitoring systems, linkages to urban and development planning, support to natural resource management programs and landcare practices contributing to protection of rivers of high environmental value.

#### **Northern Territory arrangements**

In their 1999 report to the Council Northern Territory states that the Natural Resources Division of the Department of Lands, Planning and Environment was established in 1998 to ensure an integrated approach to natural resource management for sustainable development. The Northern Territory also state that an integrated approach is promoted through the Land Resources Coordination Group made up of the CEOs of the Department of Lands, Planning & Environment, Department of Primary Industry & Fisheries and the Parks & Wildlife Commission of the Northern Territory.

The Northern Territory have indicated that a Mary River Integrated Catchment Management Plan has been prepared under a Government appointed wetlands task force. The Mary River Catchment Advisory Committee appointed to implement the plan has the following members representing:

- Mary River Landcare Group;
- Department of Primary Industry and Fisheries;
- Parks and Wildlife Commission of the Northern Territory;
- Department of Lands, Planning and Environment;
- Commonwealth Parks Australia North Agency;
- Department of Defence;
- pastoral industry;

- fishing industry;
- tourism industry; and
- mining industry;

DLPE has provided an outline of the Process details of the Water Resource Management Strategy which appears to involve six steps to implementation:

- identify the regional management area including surface water catchments, groundwater aquifers and their recharge and discharge areas, land tenure, infrastructure and statutory boundaries;
- assessment of surface and ground water resources including hydrology, quality, flow duration, yield potential, map extent of the resources, determine inter-relationship(s) between surface and groundwaters, and prepare a draft water resource assessment strategy which involves a 5-10 year work program to address significant shortfalls in knowledge;
- commence beneficial use planning which includes examining current and future use demands and preparing a draft water resources planning strategy;
- develop an approach for water resource regulation which examines water extraction licences, waste discharge licences, and links to regulatory controls outside the *Water Act 1992*. The approach involves describing existing arrangements, determining the need for change and/or improvement, describing options for change and/or improvements, and justify and recommend changes, all of which leads to preparation of a draft water resource regulation strategy;
- develop a resource management policy through processes which include describing current arrangements and identifying shortfalls in integrated catchment management within government agencies, community, industry, and then determining the need and describe options for change and/or improvement followed by justifying and recommending those changes all of which leads to preparation of a draft water resource policy strategy;
- proceed towards implementation by compiling a draft regional water resource management strategy from the policy, planning, regulation, and assessment strategies developed in the earlier steps. This is then submitted to cabinet or to the minister as appropriate for endorsement. The submission will also include a regional water allocation plan and recommend if appropriate legislative and regulatory amendments.

Implementation of the strategy may involve making appropriate amendments to the Water Act and Regulations, making beneficial use and water allocation plan declarations, establishment of a policy/management structure followed by monitoring and when necessary revising the strategy.

The Northern Territory have advised that Management Advisory Committees are appointed by the Minister to oversight the development, operation and review of plans and strategies through involvement in direction setting, editorial panels, monitoring and coordinating and directing operational programs. Advisory Committees are

appointed by the Minister and are accountable to the Minister through annual reporting against objectives and work plans set in the strategies and plans.

The Ti Tree Water Advisory Committee has held three public meetings over the past 12 months to provide a vehicle for public input to the regional water resource strategy. Membership of the Water Advisory Committee comprise: three representatives from irrigation interests; and one representative from each of the aboriginal community, pastoralists, hydrogeological expertise and agronomic expertise.

The Council understands that the water quality monitoring is a stand alone operational component of the Mary River ICM plan. The Northern Territory states that it involves significant government agency limnological programs, AUSRIVAS work and, mine and waste discharge licensing and monitoring and local Waterwatch. The Council also understands that water quality monitoring for TI Tree will be incorporated into ground extraction licences and involves public health assessment of regional groundwaters.

### **COUNCIL COMMENT**

The Northern Territory states that Regional Natural Resource Strategies (for example Ti Tree) and Integrated Catchment Management Plans (for example Mary River) are developed and implemented with full landholder and government agency participation and that Advisory Committees representative of catchment community and industry oversight the development, implementation and review of plans and strategies. However, the Council notes that there appears to be no official representation of environmental interests on the Ti Tree Water Advisory Committee. The Council notes the Northern Territory's view that there are no groundwater dependant ecosystems in the area covered by the plan but would support the representation of environmental interests on Advisory Committees wherever possible.

The Northern Territory also states that Mary River ICM Plan and Ti Tree Regional Water Resource Strategy are best practice approaches. The generic approaches to developing a Water Resource Management Strategy as described above seem appropriate. The Council will look for information on how these approaches have been implemented and how best practice is achieved through examples such as the Mary River ICM Plan and Ti Tree Regional Water Resource Strategy in the lead up to its third tranche assessment.

The Council is satisfied that tranche two commitments have been met but will look for continued progress in this area in its third tranche assessment.

#### **10.9.5.2 Support ANZECC and ARMCANZ in developing the National Water Quality Management Strategy (NWQMS), through the adoption of market-based and regulatory measures, water quality monitoring, catchment management policies, town wastewater and sewerage disposal and community consultation and awareness.**

Jurisdictions must have finalised development of the NWQMS and initiated activities and measures to give effect to the NWQMS.

### **Northern Territory arrangements**

The Northern Territory state that:

- beneficial Use Declarations Program continues under the Water Act in accordance with the National Water Quality Management Strategy;
- extensive community involvement is central to the beneficial use declaration program;
- waste discharge licensing, monitoring programs and development of catchment management strategies proceed from beneficial use declarations;
- Northern Territory participated in the ARMCANZ review of the CSIRO wastewater and stormwater management report;
- watching brief maintained on the more detailed work now in train with CSIRO on urban water cycle; and
- Landcare and Waterwatch groups are expanding throughout the Northern Territory and are associated in many cases with river and stream protection.

### **COUNCIL COMMENT**

Supplementary information provided to the Council on the Northern Territory's approach to environmental management suggest that tranche two commitments in regard to this aspect of the framework have been met. The Council will revisit this issue as part of its tranche three assessment.

## **10.9.6 REFORM COMMITMENT: PUBLIC CONSULTATION, EDUCATION**

**10.9.6.1 Jurisdictions must have consulted on the significant COAG reforms (especially water pricing and cost recovery for urban and rural services, water allocations and trade in water entitlements). Education programs related to the benefits of reform should be developed.**

The Council will examine the extent and the methods of public consultation, with particular regard to pricing, allocations and trade. The Council will look for public information and formal education programs, including work with schools, in relation to water use and the benefits of reform.

### **Northern Territory arrangements**

#### ***Consultation***

In the 1999 report to the Council the Northern Territory state that the principle of consultation is positively accepted and acted upon through direct consultation by Department of Lands, Planning & Environment with industry groups such as Northern Territory Horticulture Association, Northern Territory Irrigation, Grain & Fodder Growers Association as well as through public meetings in Katherine and Ti Tree. The Northern Territory also state that the Alice Springs Water Committee, a community-based environmental consultative group, on which the PAWA is a member, has been active in water conservation and demand management for over five years.

#### ***Education***

The Northern Territory state that for the past five years the annual focus of effort for the Department of Lands, Planning & Environment has been National Waterweek.

PAWA has established a Resource Conservation program which has seen the development of a workbook which has been accepted by the Northern Territory Open Education College for use in their junior school curriculum. The program has been conducted in a short format in all Northern Region remote schools while the more extensive two week program has been held at Numbulwar, Oenpelli, Yirrkala and Minjilan. The two week program will also be conducted in Maningrida and Ramingining in the latter part of 1998. PAWA also participates in the annual Rural Shows circuit (Alice Springs, Katherine, Darwin) with displays and information regarding water use.

### **COUNCIL COMMENT**

The Council notes that negotiation of PAWA CSO arrangements are currently on hold as a result of a review of the Authority. However, given the potential conflict of interests arising from having a service provider responsible for educational programs (which include water conservation issues) the Council would expect that educational services are secured through a well defined purchaser provider agreement. This agreement should included clearly stated outcomes and performance indicators.

The Council is satisfied that the tranche two commitments in respect of public consultation and community education have been satisfied but will revisit this issue in its third tranche assessment.