

**Appendix 7 - Pro-forma to Evaluate Status of Key Components of Jurisdictions' WQ Catchment Management Plans**

<b>State / Territory</b>	<b>WQ Management Plans</b>	<b>High Ecological Values</b>	<b>Environmental Values</b>	<b>WQ Guidelines</b>	<b>WQ Objectives</b>	<b>Environmental Flow Objectives</b>
<b>Jurisdiction</b>						
<b>Process</b>	Are there formal requirements to develop plans that follow the NWQMS WQ Management Framework?	Has any process been used to establish high ecological value areas as set out in the NWQMS?	How are environmental values established for specific catchments?	Have any specific WQ guidelines been established for the jurisdiction e.g. using direct impact studies, reference sites, etc.?	How are WQ objectives established for specific catchments?	How are environmental flow objectives established for specific catchments?
<b>Current Status</b>	What Catchment Management Plans have been developed to date?	If so, where has this process been used?	What catchments have had environmental values established?	Where have these WQ guidelines been established?	What catchments have had WQ objectives established?	What catchments have had environmental flow objectives established?
<b>Under Development</b>	What Catchment Management Plans are under development?	If so, where is this process currently being used?	What catchments are currently having environmental values established?	Are any other WQ guidelines currently being established?	What catchments are currently having WQ objectives established?	What catchments are currently having environmental flow objectives established?

## Appendix 8 - 2005 Assessment of National Water Quality Management Strategy

### NWC's 2005 Assessment Framework

The NWC's Water Reform Assessment Framework document (NWC 2005):

- outlines the scope of the 2005 National Competition Policy (NCP) assessment of governments' progress with implementing the water reforms agreed by the Council of Australian Governments and identifies the information that governments are expected to provide, to guide their reports to the National Water Commission; and
- outlines the additional information the National Water Commission is seeking from States and Territories for the baseline assessment of governance arrangements.

This document included the following requirements for reporting on jurisdictions' implementation of the NWQMS.

#### ***COAG water reform commitment***

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

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

Continued implementation of the National Water Quality Management Strategy will complement the outcomes of the National Water Initiative. In the event that there is any inconsistency between the agreements, the National Water Initiative should take precedence. [*Reference: COAG Water Reform Framework (clauses 8(b) and 8(d); and National Water Initiative (paragraph 7)*).

The development and implementation of the National Water Quality Management Strategy (NWQMS) is a response to growing community concern about the condition of the nation's water bodies and the need to manage them in an environmentally sustainable way. The NWQMS has been jointly developed by all governments through the Natural Resource Management Ministerial Council.

Guided by the principle of ecologically sustainable development, the NWQMS aims to deliver a nationally consistent approach to water quality management of a high standard. The main policy objective is "to achieve sustainable use of the nation's water resources by protecting and enhancing their quality while maintaining economic and social development."

The NWQMS sets out a national framework within which all stakeholders can contribute to better water quality management. The strategy is based on policies and principles for water quality management that apply nation-wide and includes guidelines covering the key elements of the water cycle, including groundwater, aquatic ecosystems, stormwater, agricultural water use and effluent management for specific industries.

The NWQMS has been developed to assist jurisdictions in establishing appropriate environmental outcomes. The national guidelines have a shared national objective but allow flexibility in responding to different circumstances at regional and local levels.

Water quality management should occur at the State and Territory level using water quality planning and policy instruments to set water quality goals and objectives that are in line with agreed national guidelines. These goals and objectives should form the basis for management strategies and actions.

The process of implementing the NWQMS involves the community working in concert with government in setting and achieving local environmental values, which are designed to maintain good water quality and to progressively improve poor water quality.

The 1994 Water Reform Framework calls for a mix of approaches including, but not limited to, regulatory and market-based approaches, monitoring, integrated catchment management, education and guidance. Implementation of the NWQMS has strong linkages to other water reform elements, such as water planning, providing water to achieve environmental outcomes, water trading, and the urban water reforms, as well as broader environment protection, planning and natural resource management activities.

In 2001, the National Competition Council released an NCP discussion paper '*Implementing the National Water Quality Management Strategy*'. The paper was prepared as a guide to the assessment of governments' compliance with this water reform commitment. Governments agreed in 2001 to a two-yearly review and the 2003 NCP assessment examined implementation of the NWQMS guidelines, consistent with this timeframe. That assessment evaluated jurisdictions' application of a broad water quality management framework, and expected governments to show a consistent and systematic approach to implementing the key elements of the NWQMS. The assessment also looked to governments to have initiated activities that give effect to the NWQMS where guidelines had been finalised.

Since the 2003 NCP assessment, the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* have been revised, and the guidelines on biosolids management and sewerage systems overflow have been completed. For the 2005 NCP assessment, the Commission will look for governments to demonstrate continued and active implementation of the NWQMS. In undertaking this assessment, the Commission will be guided by the expectations identified in the 2001 paper on implementation and the approach taken in previous NCP assessments. These are summarised at Appendix B (not included in this report). The Commission will consider the extent to which the implementation of other water reform commitments recognises and gives effect to the NWQMS. The 2005 NCP assessment will consider jurisdictions' implementation of guidelines that have been finalised since the last assessment.

#### *Specific NCP matters by jurisdiction*

The 2003 NCP assessment found that the majority of jurisdictions were making satisfactory progress in implementing policies that reflect the NWQMS. It also detailed issues that have been identified in previous NCP assessments as requiring further attention in order to fully satisfy COAG requirements. The Commission expects governments to show they have addressed them in their 2005 report on NCP implementation.

## **Jurisdictions' NWQMS Responses to NWC's 2005 Assessment Framework**

### ***New South Wales***

Catchment Blueprints, produced for New South Wales catchments in 2002, are being incorporated into catchment action plans by Catchment Management Authorities. Most catchment action plans address water quality problems and set targets for river health outcomes.

New South Wales advised that water sharing plans provide a sufficient amount of flow for the environment.

Property Vegetation Plans (between government and farmers) aimed at maintaining and protecting native vegetation at an on-farm level, also have a component aimed at the improvement of water quality (through maintenance and extension of riparian vegetation).

Building Sustainability Index is a web-based planning tool that measures the potential performance of new residential dwellings against sustainability indices (reduction in mains potable water consumption).

Best Practice Management Guidelines for New South Wales local water utilities (local government water and sewerage businesses) to encourage further implementation of the strategy by local water utilities.

The Natural Resources Commission is developing a set of statewide targets for natural resource management in New South Wales. A number of these targets will aim to maintain or improve the water quality and ecosystem.

The Metropolitan Water Plan for Sydney outlines a major strategy to improve river water quality in the greater Sydney area (includes improved environmental flows and recycling).

Marine water quality objectives have been to identify broad goals to achieve the long-term health of New South Wales' coastal and marine waters.

Explanatory booklets are expected to be produced for the information of local councils and Catchment Management Authorities. Guidelines have already been published for Catchment Management Authorities on how to use existing water quality objectives for freshwaters and estuaries in planning and setting investment priorities.

#### **Water Quality Monitoring:**

New South Wales Treasury is conducting a review of water monitoring (both quantity and quality), with a view to assessing the effectiveness, efficiency and costs of this monitoring making recommendations on the needs for future state water quality and aquatic ecological health assessment programs.

#### **Compliance with the Australian Drinking Water Guidelines:**

Compliance of water utilities with the Australian Drinking Water Guidelines (NHMRC & NRMMC, 2004) is monitored by New South Wales Health. New South Wales Health provides input into the Department of Energy, Utilities and Sustainability's annual report which essentially shows compliance of non-metropolitan water utilities with the Australian Drinking Water Guidelines.

## **Victoria**

Victoria has continued to implement the key elements of the NWQMS through a range of mechanisms:

- the Victorian River Health Strategy—this provides an integrated framework for managing river health to achieve ecologically healthy rivers that are managed within healthy catchments
- regional catchment strategies, regional river health strategies, water quality action plans. Through these, Catchment Management Authorities identify the environmental, social and economic values of water, and in consultation with the community, set priorities for water quality management in water quality related plans and programs, and
- the revised State Environmental Protection Policy (Waters of Victoria) 2003—this sets environmental quality objectives that inform; water quality and biological requirements for ecologically healthy rivers, and protection of various environmental, economic and social assets. This policy recognises the water quality management targets set in regional catchment strategies.

Victoria has developed the RiVERS Assets Register, which draws on the environmental values in the NWQMS as well as social and economic assets identified by the Catchment Management Authorities for incorporation into the regional river health strategies. Supporting the regional river health strategies are a number of additional supporting, specific issue plans developed by the Catchment Management Authorities as part of a three-year rolling regional activity plan.

Victoria has a number of frameworks for monitoring water quality, including:

- the Victorian Water Quality and Quantity Monitoring Network
- the Index of Stream Condition, and
- the Catchment Condition Indicators project, reported by the Victorian Catchment Management Council.

Development and Implementation of Risk-based Environmental Objectives for Catchments  
Victoria's management approach, through the Victorian River Health Strategy, is based on four key elements:

- protecting the rivers that are of highest community value from any decline in condition
- maintaining the condition of ecologically healthy rivers
- achieving an 'overall improvement' in the environmental condition of the remainder of the state's rivers, and
- preventing damage from future management activities.

A risk-based assessment is used to determine the threats to the identified assets and priority waters, identified by Catchment Management Authorities in the regional river health strategies using the RiVERS register as a decision support tool. The assessment determines the threats of most significance and thus those requiring management actions to be undertaken.

Development of Catchment-based Nutrient and Water Quality Plans<sup>1</sup>:

Through the *Victorian River Health Strategy*, Catchment Management Authorities will be required to develop a number of sub-strategies to support their regional river health strategy. One of these is the catchment water quality action plan, which will encompass actions to deal with nutrients, salinity (if not covered by a separate plan) and other water quality issues.

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<sup>1</sup> Update from Victorian DSE: Catchment Water Quality Action Plans **have been** completed as a requirement of the VRHS (2002). The plans **were** developed by CMAs in consultation with key stakeholders and regional communities. They will no longer be required into the future and this is important to note. In the future, the second generation regional river health strategies will deal with WQ issues within them.

These plans will be developed by the Catchment Management Authorities in consultation with key stakeholders and regional communities.

Victoria's Water Quality Monitoring Arrangements:

From 1 March 2005, water quality monitoring that was previously conducted by a number of agencies across the state has been integrated through the establishment of regional water resource monitoring partnerships. These partnerships have been established for the Gippsland, North East, North West and South West regions.

Implementation of Frameworks to Control Point and Diffuse Source Pollution:

Control of point and diffuse source pollution in waterways for surface water is managed through the State *Environmental Protection Policy (Waters of Victoria) 2003*, which is subordinate legislation under the *Environment Protection Act 1970*.

Point source pollution of Victorian waterways is controlled by the Victorian Environment Protection Authority, mostly through a range of regulatory mechanisms.

Diffuse pollution of Victorian waterways is controlled through a range of frameworks including:

- urban stormwater best practice environmental management guidelines
- landuse planning
- best management practices, and
- strategies and frameworks prepared by Catchment Management Authorities addressing integrated catchment management.

The State Environmental Protection Policy was updated in June 2003 to reflect current scientific knowledge and approaches and Victoria's catchment management arrangements. Schedules to this policy provide special measures for sensitive areas such as Western Port, the Gippsland Lakes and Port Phillip Bay.

## **Queensland**

The Environmental Protection (Water) Policy 1997 adopts the NWQMS approach of establishing the environmental values of waterways for protection, water quality objectives to protect environmental values, and protocols for sampling, measurement, analysis and reporting.

The Queensland Environmental Protection Agency is currently working with catchment communities to establish environmental values and water quality objectives for Moreton Bay – South-East Queensland, the Mary River Basin – Great Sandy Region, and the waters of Douglas Shire (EPA, 2004).

For the remainder of Queensland's waters, the Environmental Protection Agency is working with regional natural resource management bodies and local governments to establish arrangements for water quality target-setting.

Environmental values are considered in the development of water resource plans.

The Environmental Protection Agency has developed the *Draft Queensland Water Quality Guidelines* (EPA Queensland, 2005) that complement the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000* (ANZECC & ARMCANZ, 2000).

The South East Queensland Regional Water Quality Management Strategy *The South East Queensland Regional Water Quality Management Strategy* (Healthy Waterways, 2001) was developed in cooperation with local government, community and industry groups

Reef Water Quality Protection Plan - joint approach to protecting the Great Barrier Reef from land-based pollution; with a particular focus on diffuse pollution.

#### Water Quality Monitoring

- development of a conceptual framework for a stream and estuary assessment
- providing water quality science for priority regions in Queensland through the National Water Quality State Investment Program.
- implementation of the sustainable rivers audit for the Murray-Darling Basin.
- water quality and river health data available through publications and on websites

### **Western Australia**

#### State Water Quality Management Strategy

Western Australia reported that during 2004-05 its six Natural Resource Management regions developed Regional Natural Resource Management Strategies that deal with water quality and on ground implementation of the State Water Quality Management Strategy (SWQMS), including SWQ6, which encompasses implementation of NWQMS papers 4 and 7. These regions manage water quality, and associated assessment and reporting issues for Western Australia's inland waters.

With regard to the management of water quality in coastal waters, Western Australia reported its recent progress implementing SWQ6 in the Pilbara, through the Pilbara Coastal Waters project. Community and stakeholder views on environmental values and environmental quality objectives for the Exmouth Gulf and Pilbara marine environments were obtained. These will guide development of goals for environmental quality to manage the effects of diffuse and point source pollution, and to maintain marine health.

The next major phase of the Pilbara Coastal Waters project will be to develop specific criteria for water and sediment quality indicators. The Department has completed a survey of background water quality and is currently conducting a survey of background sediment quality for the region. These regional data will be used together with approaches recommended by the Australia Water Quality Guidelines to develop the criteria. Once developed, the criteria will be used as benchmarks against which to assess the results of monitoring programs and to determine whether the environmental quality objectives are being achieved and the environmental values protected.

SWQ6 has also been implemented in Cockburn Sound, Western Australia's most intensively used marine embayment. Western Australia released the *State Environmental (Cockburn Sound) Policy 2005* in January 2005. The policy, which will be implemented through existing statutory powers under the *Environmental Protection Act 1986*, has the primary aim of declaring, protecting and maintaining the environmental values of Cockburn Sound.

The policy also provides for the:

- implementation of the *Environmental Management Plan for Cockburn Sound and its Catchment*, which outlines on-ground actions for implementing the policy, and establishes the particular roles and responsibilities of managers and user groups; and
- investigation and monitoring of Cockburn Sound, as described in the *Manual of Standard Operating Procedures for Environmental Monitoring against the Cockburn Sound Environmental Quality Criteria (2003 – 2004)*.

Implementation of NWQMS Guidelines:

WA reported the following progress in implementing the NWQMS guidelines:

Drinking Water Guidelines (NWQMS paper 6):

Western Australia incorporated the Australian Drinking Water Guidelines (NHMRC & NRMCC, 2004) into its government policy in the *State Water Strategy 2003* and *State Sustainability Strategy 2003*.

Western Australia reported that it has prepared an overarching *Public Drinking Water Resource Policy* that reflects existing custom and practice and the new catchment to consumer framework approach promoted in the Australian Drinking Water Guidelines.

Western Australia also expects the release of the 2004 Australian Drinking Water Guidelines to provide an opportunity to promote its State Water Quality series document 3 (SWQ3). SWQ3 is planned to promote the Australian Drinking Water Guidelines through Western Australia Government agencies to ensure the significance of drinking water catchments are properly reflected in all government agency decision making processes.

Groundwater Protection (NWQMS paper 8)

Western Australia advised that its groundwater protection program is consistent with NWQMS Guideline 8. To assist with implementation of the NWQMS guideline, Western Australia is preparing a Water Quality Protection Note, which will recommend best management practices for various land uses that have a strong likelihood of impacting upon the quality of Western Australia's groundwater resources.

In addition, the Department of Water is continuing to work with Western Australia's planning agencies to ensure that groundwater protection requirements are integral within the land-use planning process.

Urban Stormwater (NWQMS paper 10)

The *Stormwater Management Manual for Western Australia* will provide coordinated guidance on current best management practice for stormwater management in Western Australia.

Effluent Management (NWQMS paper 11)

Western Australia advised that this guideline represents an overview for all sewerage system guidelines (Guidelines 11 to 15). As such the work previously completed on each guideline 12 to 15 means a separate implementation plan for Guideline 11 is not needed, but it may be progressed if interest from other agencies is received in 2006. Additionally, effluent management is subject to the Environmental Protection Authority's licence assessment and condition setting process that inherently considers the NWQMS series of documents.

Western Australia also indicated that a 'Wastewater Management Framework' is being progressed to enhance existing sewerage system processes and practices in Western Australia.

Reclaimed Water (NWQMS paper 14)

Western Australia's *State Water Strategy* considers reclaimed waste and deals with greywater recycling and scheme-based reclamation and its use for industry, parks, gardens and horticulture. Western Australia indicated that the development of implementation plans will be considered under this framework.

Western Australian is progressing reclaimed/ recycled water issues for industry, parks/ ovals and agriculture use. The Environmental Protection Authority in Western Australia held six 'Managed Aquifer Recharge – using recycled water' workshops and finalised its report to government in October 2005.

The Premier has also approved projects to further progress Western Australia's knowledge of the chemicals of concern to the environment and people. The Premier's *State Water Strategy* Taskforce is overseeing ongoing progress of this project.

Dairy sheds and processing plant effluent (NWQMS papers 16a and 16b)

Western Australia reported that a 1998 dairy farm effluent guideline titled *Environmental management for animal based industries – Dairy farm wastewater 1998* exists, which considers NWQMS outcomes. In addition, regulations for effluent management that will apply to dairying are being progressed. Western Australia is also preparing a best management practice manual for dairying.

With regard to dairy processing sheds, Western Australia reported that they are subject to licensing under the *Environmental Protection Act 1986*. The licences use NWQMS outcomes to set conditions to protect water quality. In addition, a Dairy Processing Plant Water Quality Protection Note was released in July 2004.

#### Water Reform Commitments

The *Environmental Water Provisions Policy for Western Australia* describes the approach to be followed by the Department of Water in determining how water will be provided to protect ecological values when allocating the rights to use water in Western Australia. Under the policy, water quality issues need to be considered in four main areas when establishing environmental water requirements and environmental water provisions. These are where:

- part of an environmental water requirement may be required to address water quality problems that are mostly caused by surface water diversions or groundwater abstraction (e.g. where river pools were previously oxygenated by continuous flow or low oxygen levels in wetlands have been caused by lower than normal water depths)
- water regimes identified as environmental water provisions may need to have associated water quality parameters to ensure appropriate protection of ecological and social values (e.g. when water is released from a reservoir or water is pumped into a wetland from a deep aquifer)
- there is a need to establish mitigation water requirements, as defined in the policy, to provide for the flushing of algal blooms or the dilution of saline systems affected by dryland salinity or similar, and
- the implementation of environmental water provisions would not make a significant improvement to wetland or river health unless other actions were taken to improve water quality problems associated with catchment or waterway management.

#### **South Australia**

South Australia implements the NWQMS framework through the Environment Protection (Water Quality) Policy 2003. This policy, which is a statutory instrument under the *Environment Protection Act 1993*, came into operation on 1 October 2003. It applies to all inland surface water, groundwater, and marine waters. It covers a range of issues, including:

- establishment of protected environmental values and water quality objectives
- management and control of point and diffuse sources of pollution
- obligations relating to particular activities, and
- water quality criteria, discharge limits and listed pollutants.

South Australia's recent activities under the Environment Protection (Water Quality) Policy 2003 include the following:

- developing the *Port Waterways Water Quality Improvement Plan* (EPA, 2005), which identifies environmental values and water quality objectives in consultation with the community.

- undertaking a catchment risk assessment of pollutants entering the Murray River. A catchment risk assessment is planned for the Mount Lofty Ranges watershed and for Gulf St Vincent
- a decision-support tool has been used to determine sustainable loads from these main point sources entering the Port Waterways,
- ambient water quality monitoring is continuing across the state including the Port River.

State of Environment reporting, and reporting on statutory regional natural resource management plans, will be used to report on the effectiveness of actions taken to achieve water quality objectives under the Environment Protection (Water Quality) Policy 2003.

The *Natural Resources Management Act 2004* requires all regional natural resource management plans to be consistent with the Environment Protection (Water Quality) Policy 2003. For example, regional water management planning should be based on environmental values, as advocated in the NWQMS, and identified by the community and government.

The *Draft State Natural Resources Management Plan* expects regional Natural Resource Management Boards to seek assistance from the Environment Protection Authority to ensure future planning activities are consistent with the Environment Protection (Water Quality) Policy 2003.

Implementation of NWQMS Guidelines:

The Environment Protection (Water Quality) Policy 2003 uses codes of practice and guidelines to describe how a person undertaking a particular activity can comply with their general environmental duty. South Australia adopts NWQMS guidelines as a basis for these codes and guidelines, but makes some variations to meet local requirements.

The Environment Protection Authority has used the *Guidelines for Sewerage Systems – Sewerage System Overflows* (ANZECC & ARMCANZ, 2000b) to develop the *Draft Code of Practice for Wastewater Overflow Management: For Public Consultation* (EPA, 2003) that can be enforced through the Environment Protection (Water Quality) Policy 2003.

Water Quality Monitoring:

South Australia has instituted reviews of water monitoring at statewide, regional and catchment scales. All reviews are coordinated through the State Water Monitoring Coordinating Committee.

At the state level, the Environment Protection Authority conducted an internal review of the ambient water quality monitoring program in 2003, which resulted in a number of changes in, and expansion of, the previous program. The state government committed an additional \$370,000 per annum to the program. The additional funding supported increased monitoring to include additional rivers and streams, aquifers under stress, and an expansion of the marine monitoring program.

Reports on the ambient water quality monitoring program are published on the Environment Protection Authority website ([www.epa.sa.gov.au](http://www.epa.sa.gov.au)). The program has since been reviewed, and is now being internally reviewed, before being subjected to external peer review.

### **Tasmania**

Tasmania has continued to implement the key elements of the NWQMS through its State Policy on Water Quality Management 1997. The policy establishes a water quality management framework with the setting of environmental values and water quality objectives. It also provides a framework for the management of point and diffuse sources of pollution.

Protected environmental values have now been set for the majority of Tasmania's fresh and estuarine waters, and are publicly at [www.dpiwe.tas.gov.au](http://www.dpiwe.tas.gov.au). The process of setting protected environmental values for fresh and estuarine waters has involved community consultation and negotiated agreements between the board of the Environmental Management and Pollution Control Board (an independent statutory body) and relevant planning authorities.

The Commission understands that protected environmental values will be incorporated into park management plans, used for natural resource management, and considered in water management planning.

Tasmania has indicated that a lack of data, and a lack of appropriate ecosystem-based protected environmental values have both caused difficulties with the value-setting process for groundwaters and coastal waters. Tasmania intends to address these issues in the 2006 review of the *State Policy on Water Quality Management 1997*. A public consultation process to set protected environmental values for coastal waters and to establish interim protected environmental values for groundwater will commence once the review is complete.

#### Water Reform Commitments

The Department of Primary Industries, Water and Environment is developing statutory water management plans to determine future water allocations for watercourses, lakes and groundwater areas. Protected environmental values and water quality objectives developed under the *State Policy on Water Quality Management 1997* inform the development of environmental objectives, and the subsequent environmental water provisions within these plans.

#### Implementation of Guidelines

Tasmania has indicated that it expects that the *State Policy on Water Quality Management 1997* will undergo a full review in 2006, and be amended to align protected environmental values with those in the revised *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*.

#### Water Quality Objectives

According to Tasmania, water quality objectives, as defined in its *State Policy on Water Quality Management 1997*, broadly equate to long term targets in the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000*. In un-impacted catchments, the water quality objectives will reflect existing ambient conditions; in highly stressed catchments they will represent long-term targets.

Tasmania has developed a process for setting water quality objectives. It has been tested in one west coast catchment. Tasmania expects that, except where required on a case-by-case basis, water quality objectives will be set for catchments through the natural resource management framework established in Tasmania in a manner and timeframe that is consistent with the requirements of the National Resources Management National Monitoring and Evaluation framework and the *State Policy on Water Quality Management 1997*.

#### State Water Quality Monitoring Strategy

*The Tasmanian Surface Water Quality Monitoring Strategy*, adopted in 2003, underpins the Tasmanian Government's role in coordinating water quality monitoring and reporting activities across the state. A key objective of the strategy is to develop and maintain partnerships with local government, industry and community groups by developing and maintaining a centralised Tasmanian water quality database.

Tasmania has made recent progress towards this objective by:

- assisting the development of a centralised database for community monitoring programs such as Waterwatch
- partnering with relevant councils to audit their water quality monitoring activities and associated data to identify opportunities for integrated water quality monitoring and data sharing.
- progressing the establishment of memorandums of understanding with key industry stakeholders regarding sharing water information and reporting of this information
- increasing the baseline water quality monitoring network to 54 stations.
- training community groups in water quality monitoring, and
- improving access to water related data for all stakeholders  
[www.water.dpiwe.tas.gov.au/wist/ui](http://www.water.dpiwe.tas.gov.au/wist/ui)

### **Australian Capital Territory**

NWQMS initiatives are principally incorporated through codes of practice covering water quality, water monitoring and wastewater management.

In particular, the Australian Capital Territory has:

- refined national and regional guidelines for site specific applications within various catchments of the Australian Capital Territory. This tailored approach addressed the primary management aims for each catchment including the water quality objectives, then provided appropriate guideline values for relevant indicators as determined from an assessment of site specific data. This approach allowed for different levels of protection in different catchments, depending on the values identified in the territory's *Water Resources Management Plan 2004*
- reviewed the Australian Capital Territory water quality standards set out in Schedule 4 of the Environment Protection Regulations 1997, and
- reviewed its water monitoring and assessment program before issuing any new monitoring contracts. The program includes water quality, streamflow and biological monitoring. The results of this analysis are published in an annual *Australian Capital Territory Water Report*.

### **Water Reform Commitments**

As the Draft *Environmental Flow Guidelines*<sup>2</sup> explain, implementation of the *Water Resources Act 1998* needs to be consistent with *Think water, act water*.

Three types of water use catchments are identified in *Think water, act water*—'conservation', 'water supply', and 'drainage and open space'. The plan specifies the primary environmental and use values of waterbodies in the Australian Capital Territory for each of these types of catchment.

Under the general principles and policies, *Think water, act water* requires that planning be guided by the principles of ecological sustainability and exclude catchment land and water uses that impact on the sustainability of environmental or water use values. It is therefore necessary that appropriate flows be provided to protect the environmental and use values of Australian Capital Territory waterbodies.

*Think water, act water* has four principles to achieve protection of environmental values of downstream waters, namely:

- land use and management practice shall be cognisant of streamflow and water quality impacts downstream
- streamflow diversions shall be restricted to authorised diversions
- lake and reservoir releases shall be consistent with the protection of downstream ecology and water uses, and

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<sup>2</sup> Update from ACT: The Environmental Flow Guidelines have now been finalised.

- groundwater abstraction shall be consistent with authorised abstraction.
- Implementing these policies necessitates defining quantitative *Environmental Flow Guidelines* for all streams, rivers, lakes and aquifers in the Australian Capital Territory.

### **Northern Territory**

#### Beneficial Use Declarations

Under the *Water Act 2004*, water quality in the Northern Territory is currently protected by the adoption of community-based beneficial use declarations and environmental values for each water body. Declaring beneficial uses provides legal recognition of the values of a water resource and determines how water may be used, managed and protected. This beneficial use framework is identical to the environmental values framework of the NWQMS.

Water quality monitoring—to assess whether water quality values and beneficial uses are being maintained—is undertaken in the Northern Territory as a partnership between industry, government and the community.

Ilparpa Swamp is one example of an area in the Northern Territory that has declared beneficial uses under the *Water Act 2004*. A community consultation process identified environmental and cultural use as priority values of the area. A programme to rehabilitate the swamp, and protect its environmental and cultural beneficial uses, was subsequently established.

#### Industry Codes of Practice and Environmental Guidelines

Point-source pollution produced by large industries is regulated by waste discharge licences that set discharge limits, and establish mixing zones and environmental monitoring programs to verify the discharge limits are being met. Draft environmental guidelines for waste discharge management are available on request to the Environmental Protection Agency to provide a framework for risk management, mixing zone management and environmental monitoring. Diffuse source pollution is managed through industry codes of practice and environmental guidelines.

#### Water Reform Commitments

The *Water Act 2004* provides the primary statute for all matters associated with the sustainable use and protection of water quality of surface water resources and groundwater resources. The Act applies the beneficial use framework discussed above to the management of both surface water and groundwater. For example, water resources are allocated to consumptive water users according to the beneficial use categories. A beneficial use must first be declared prior to any allocation being determined for any particular use. An entitlement to extract water for any particular purpose is then provided through a water extraction licence, which is issued for particular beneficial uses.

#### Implementation of NWQMS Guidelines

Regulatory agencies in the Northern Territory recognise and use the NWQMS guidelines on point and diffuse source pollution where their use is considered appropriate.

#### Drinking Water Monitoring Programme

The Power and Water Corporation reviews its Drinking Water Quality Monitoring Program continuously in conjunction with the Department of Health and Community Services. The corporation publishes the review results in its annual Water Quality Reports, which are publicly available on the corporation's website.

Recent modifications to the Drinking Water Quality Monitoring Program have included:

- introducing additional sampling programs in Tennant Creek to enhance the ability to identify potential problems

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- introducing additional sampling locations in Alice Springs to incorporate system expansion, and
- reducing the frequency of radiological and pesticide sampling to account for previous results.

The Power and Water Corporation (in conjunction with the Department of Health and Community Services) will be undertaking a major review of the Drinking Water Quality Monitoring Program during 2006, with regard to newly released National Health and Medical Research Council guidelines.

**Appendix 9 - NWQMS and related Guidelines (and short titles)**

No.	Title	Short Title
	<b>Policies and Process for Water Quality Management</b>	
1	<i>Water Quality Management — An Outline of the Policies</i>	1– Outline
2	<i>Policies and Principles — A Reference Document</i>	2 – Policies & Principles
3	<i>Implementation Guidelines</i>	3 – Implementation
	<b>Water Quality Benchmarks</b>	
4	<i>Australian and New Zealand Guidelines for Fresh and Marine Water Quality</i>	4 – Water Quality
6	<i>Australian Drinking Water Guidelines</i>	6 – Drinking water
7	<i>Australian Guidelines for Water Quality Monitoring and Reporting</i>	7 – Monitoring & Reporting
	<b>Groundwater Management</b>	
8	<i>Guidelines for Groundwater Protection</i>	8 – Groundwater
	<b>Guidelines for Diffuse and Point Sources*</b>	
9	<i>Rural Land Uses and Water Quality — A Community Resource Document</i>	9 – Rural Land Uses
10	<i>Guidelines for Urban Stormwater Management</i>	10 – Urban Stormwater
11	<i>Guidelines for Sewerage Systems — Effluent Management</i>	11 – Sewage Effluent
12	<i>Guidelines for Sewerage Systems — Acceptance of Trade Waste (Industrial Waste)</i>	12 – Trade Waste
13	<i>Guidelines for Sewerage Systems — Biosolids Management</i>	13 – Biosolids Management
14	<i>Guidelines for Sewerage Systems — Use of Reclaimed Water</i>	14 – Reclaimed Water
15	<i>Guidelines for Sewerage Systems — Sewerage System Overflows</i>	15 – Sewage Overflow
16a	<i>Effluent Management Guidelines for Dairy Sheds</i>	16a – Dairy Sheds
16b	<i>Effluent Management Guidelines for Dairy Processing Plants</i>	16b – Dairy Processing
17	<i>Effluent Management Guidelines for Intensive Piggeries</i>	17 – Piggeries
18	<i>Effluent Management Guidelines for Aqueous Wool Scouring and Carbonising</i>	18 – Wool Scouring
19	<i>Effluent Management Guidelines for Tanning and Related Industries in Australia</i>	19 – Tanning
20	<i>Effluent Management Guidelines for Australian Wineries and Distilleries</i>	20 – Wineries & Distilleries
21	<i>Australian Guidelines For Water Recycling - Managing Health &amp; Environmental Risks - Phase 1</i>	21 – Recycled Water
	<i>Guidelines for Managing Risks in Recreational Waters (NHMRC 2008)</i>	Recreational Guidelines
	<i>Australia &amp; New Zealand Food Standards Code (FSANZ 2007)</i>	Food Standards Code