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# IMPLEMENTATION PLAN FOR THE NATIONAL WATER INITIATIVE TASMANIA

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# Acronyms and Abbreviations

ANCID	Australian National Committee on Irrigation and Drainage
ARMCANZ	Agriculture and Resource Management Council of Australia and New Zealand
AWA	Australian Water Association
CFEV	Conservation of Freshwater Ecosystem Values
CLIS	Cressy-Longford Irrigation Scheme
COAG	Council of Australian Governments
DPAC	Department of Premier and Cabinet
DPIW	Department of Primary Industries and Water
DPIWE	Department of Primary Industries, Water and Environment
DTAE	Department of Tourism, Arts and Environment
EMPCA	<i>Environmental Management and Pollution Control Act 1994</i>
EPHC	Environment Protection and Heritage Council
ESCAWRI	Executive Steering Committee for Australian Water Resource Information
FPA	Forest Practices Authority
GBE	Government Business Enterprise
GPOC	Government Prices Oversight Commission
IDC WP	Inter-Departmental Committee on Water Policy
IGA	Intergovernmental Agreement
JSCWSC	Joint Steering Committee Water Sensitive Cities
KPI	Key Performance Indicators
MRT	Mineral Resources Tasmania
NAP	National Action Plan for Salinity and Water Quality
NCP	National Competition Policy
NRM	Tasmanian Natural Resource Management
NRMMC	Natural Resource Management Ministerial Council
NWC	National Water Commission
NWI	National Water Initiative
NWI WG	National Water Initiative Working Group
OAA	Office of Aboriginal Affairs
RMPS	Resource Management and Planning System
RPDC	Resource Planning and Development Commission
RWSC	Rivers and Water Supply Commission
SAWM	Smart Water Mark
SEIS	South East Irrigation Scheme
SPWQM	<i>State Policy on Water Quality Management 1997</i>
SWQMS	Surface water quality management strategy
TALSC	Tasmanian Aboriginal Land and Sea Council
WELS	Water Efficiency Labelling and Standards
WIMS	Water Information Management System
WIST	Water Information System of Tasmania
WIS	Winnaleah Irrigation Scheme
WMA	<i>Water Management Act 1999</i>
WMP	Water Management Plan
WMR	Water Management Reviews
WSAA	Water Services Association of Australia
WSUD	Water Sensitive Urban Design
WUSP	Water Use Sustainability Project

# Introduction

## Overview of the National Water Initiative

The National Water Initiative (NWI) is Australia's blueprint for national water reform. The Tasmanian Government became a signatory to the NWI on 2 June 2005. The NWI is a comprehensive agreement aimed at, among other things:

- expanding water markets for greater permanent trade in water,
- promoting more flexible and profitable water use,
- increasing confidence for those investing in the water industry,
- improving water planning and accounting,
- improving the way water is allocated, used and managed for environmental outcomes, and
- improving the efficient management of water in urban environments.

The NWI builds on the previous Council of Australian Governments (COAG) framework for water reform agreed to in 1994. Since 1994, national reform agreements of this kind have proved important in Australia for guiding the shape of water reform and maintaining the pace of water reform.

The NWI represents a shared commitment by the Australian Government and state/territory governments to water reform in recognition of:

- the continuing national imperative to increase the productivity and efficiency of Australia's water use,
- the need to service rural and urban communities, and
- ensuring the health of river and groundwater systems, including by establishing clear pathways to return all systems to environmentally sustainable levels of extraction.

Just under half of the NWI's 70 or so actions involve national actions or other action by governments working together. This reflects not just the emphasis in the Agreement on greater national compatibility in the way Australia measures, plans for, prices, and trades water. It also represents a greater level of cooperation between governments to achieve this end.

The NWI assigns a number of responsibilities to the Natural Resource Management Ministerial Council (NRMMC). These include the development of a comprehensive national set of performance indicators for the NWI and overseeing implementation of the NWI, particularly for actions that require national coordination. In December 2004, the Australian Government established the National Water Commission (NWC) to assist with implementation of the NWI.

The overall objective of the NWI is to achieve a nationally compatible market, regulatory and planning based system of managing surface and groundwater resources for rural and urban use that optimises economic, social and environmental outcomes.

The NWI agreement includes objectives, outcomes and agreed actions to be undertaken by governments across eight inter-related elements of water management:

**1. Water access entitlements and planning framework**

A key aim of the Initiative is to restore surface and groundwater systems to environmentally sustainable levels. Water sharing plans will help to bring certainty for consumers, and allow them greater scope to plan agricultural and other activities.

**2. Water markets and trading**

The NWI will work towards the removal of institutional barriers to trade in water. Water trading systems will have the widest possible geographic scope, and will not be restricted to within catchment areas.

**3. Best practice water pricing**

Water pricing and institutional arrangements under the NWI will promote economically efficient and sustainable use of water resources, water infrastructure assets, and government resources; ensure sufficient revenue streams to allow efficient delivery of services; facilitate the efficient functioning of water markets; give effect to the principles of consumption-based pricing and full cost recovery; and provide appropriate mechanisms for the release of unallocated water.

**4. Integrated management of water for environmental and other public benefit outcomes**

Identify within water resource planning frameworks the environmental and other public benefit outcomes sought for water systems and to develop and implement management practices and institutional arrangements that will achieve those outcomes.

**5. Water resource accounting**

The outcome of water resource accounting is to ensure that adequate measurement, monitoring and reporting systems are in place in all jurisdictions, to support public and investor confidence in the amount of water being traded, extracted for consumptive use, and recovered and managed for environmental and other public benefit outcomes.

**6. Urban water reform**

The NWI will ensure healthy, safe and reliable water supplies; increase water use efficiency in domestic and commercial settings; encourage the re-use and recycling of wastewater; facilitate water trading between and within the urban and rural sectors; encourage innovation in water supply sourcing, treatment, storage and discharge; and achieve improved pricing for metropolitan water.

**7. Knowledge and capacity building**

The NWI identifies areas where there is significant knowledge and capacity building needs for its ongoing implementation. Signatories to the Initiative have agreed to identify the key knowledge and capacity building priorities needed to support ongoing

implementation of the Agreement, and identify and implement proposals to more effectively coordinate the national water knowledge effort.

## **8. Community partnerships and adjustment**

Governments are to engage water users and other stakeholders in achieving the objectives of the Initiative by improving certainty and building confidence in the reform processes; transparency in decision making; and ensuring sound information is available to all sectors at key decision points. New and improved measuring, monitoring, reporting and accounting procedures will be introduced, and improved public access to information will increase public acceptance of the Initiative.

## **The National Water Initiative in Tasmania**

The Tasmanian Government is fully committed to implementing efficient and sustainable water industry reforms through both the 1995 COAG Water Reform Framework and as a signatory to the Intergovernmental Agreement on a National Water Initiative.

By signing the Agreement, Tasmania agreed that actions under the NWI will be implemented in accordance with the timetable set out in the Agreement and in accordance with a formal and accredited Implementation Plan (refer to paragraphs 9 to 10 of the NWI Agreement).

The Tasmanian NWI Implementation Plan sets out the actions that Tasmania has already completed and provides detailed information, for each action, on the tasks and timelines to complete remaining commitments, and the context within which these actions are being implemented.

To facilitate a whole of government approach to implementing the NWI, an Inter-Departmental Committee on Water Policy (IDC WP) has been established. It includes representation from:

- Department of Premier and Cabinet (DPAC);
- Department of Primary Industries and Water (DPIW);
- Department of Economic Development;
- Department of Infrastructure, Energy and Resources;
- Department of Tourism, Arts and the Environment (DTAE); and
- Department of Treasury and Finance.

The secretariat for the Inter-Departmental Committee on Water Policy is based in the Water Resources Division, DPIW.

The *Water Management Act 1999* (WMA) provides a robust and effective legislative framework for the sustainable management and allocation of Tasmania's water resources. The commencement of the WMA on 1 January 2000 ensured that the State's water resources are regulated to provide for long-term sustainability and facilitated the implementation of a number of COAG Water Reform Framework

requirements. Importantly, the WMA has provided water users with clear and secure water access entitlements on which they are prepared to invest strongly in water-dependent development.

Water is allocated in Tasmania under various levels of “surety” that reflect the relative reliability of flows in a river system and in general, water is allocated such that the general reliability of those allocations is high. Tasmania’s unregulated systems generally have sufficient flow to meet environmental and user demands in most years (for example 8 years in 10). The introduction of a moratorium in 1995 on the issue of new water entitlements for extraction during summer has protected the rights of existing users and the environment from over-allocation. As a result Tasmania does not have any identified over-allocated river systems.

Data from the 2000 National Land and Water Resources Audit indicates that in Tasmania, diversions on average account for about 1% of the mean annual flow from all Tasmania’s rivers. In fact, the highest level of diversion as a percentage of median annual flow for the 19 Tasmanian surface water management areas identified by the Audit was 8.7%. In addition, the number of significant rivers and streams in Tasmania with formal water access entitlements is less than 10% of the total number of such rivers and streams, further illustrating our relatively low level of water allocation. However, while annual median flows indicate that additional water can be allocated for extraction, the additional water is almost solely available only during winter.

The implementation of the NWI is aimed at “risk management” rather than “risk elimination”. This approach is already well accepted in Tasmania where in most areas of the State, consumptive water use is only a small fraction of the total water available. In these catchments and sub-catchments, the risk of progressing to unsustainable water use is managed through actions such as monitoring river health and the establishment of conservative trigger points for water allocations so that early warning of any significant changes to ecosystem health and water usage is provided.

Currently the Tasmanian Government is progressing a number of projects to further enhance the sustainability of water use and security of water access entitlements and to encourage the continued sustainable development of our relatively ample water resources. Examples include reviewing the State’s water legislation, implementing the outcomes from the Conservation of Freshwater Ecosystem Values Project, enhancing hydrological modelling and developing mechanisms for improved groundwater modelling and licensing. These are just a few of the on-going activities that have been highlighted in this Implementation Plan that will support the implementation of the National Water Initiative in Tasmania.

Prior to becoming a signatory to the NWI, Tasmania had commenced a review of the *Water Management Act 1999* and related legislation. In May 2005 the “Report on the Operation of the *Water Management Act 1999*” was tabled in Parliament. This was followed by a two month public consultation period during which comment was invited from key stakeholder bodies and the broader community on measures to improve the operation of the Act as well as mechanisms to ensure that the objectives of the Act continue to be met. During this public consultation period in June 2005, Tasmania signed on to the NWI Agreement.

Around 120 issues were raised in the public submissions relating to a broad suite of water resource management issues including the dam approvals process, water interception, hydrological modelling, groundwater management, regulation of irrigation practices and water quality issues. The majority of the key issues have been addressed through actions identified in this Implementation Plan.

Other actions that will be undertaken to support the findings of the review include drafting amendments to relevant water legislation (eg *Water Management Act 1999*, *Irrigation Clauses Act 1973* and *Waterworks Clauses Act 1952*), making procedural changes to administrative processes and the planned review of the *State Policy on Water Quality Management 1997*. DPIW has prepared a report on how it will address the key issues raised in the public submissions.

The broad suite of actions identified in the Implementation Plan demonstrates Tasmania's commitment to the continued management of the State's water resources using contemporary best practice procedures and mechanisms as outlined in the NWI.

# Water Access Entitlements and Planning Framework

## 1. Water Access Entitlements

### Key action(s) and implementation dates

Key Actions (Water Access Entitlements)	Date	IGA paragraph	Responsibility
Implementation of the framework: <ul style="list-style-type: none"> <li>• Legislative and administrative regimes amended to incorporate the elements of the entitlements and allocation framework in this Agreement.</li> </ul>	End 2006	26(ii)	States
Water access entitlements to be defined and implemented.	Immediate	28-34	States
Adopting a common lexicon for water use and management.	On-going	17	All parties

### Context

#### Water access entitlements provisions under the *Water Management Act 1999*

The *Water Management Act 1999* (WMA) provides that all rights to the taking of water from the water resources of Tasmania are vested in the Crown, to be administered in accordance with the Act. The WMA is an enabling Act, providing broad directions for the Minister for Primary Industries and Water to oversee the sustainable use and development of all freshwater resources in the State, including dispersed surface water and water in watercourses, lakes, wetlands and groundwater resources.

Under the WMA, the Minister for Primary Industries and Water may grant a water licence to a person to take water from a water resource. A licence may have more than one water allocation attached to it to enable the licensee to take water from a water resource at different times of the year or at different off-take points. All licensed water access entitlements under the Act are property rights, separated from land titles, that are able to be mortgaged and traded.

Tasmania's water access entitlements provide water users with clear and secure water access entitlements on which they have demonstrated a willingness to invest strongly in water-dependent development. The licensed water access entitlements, that is, the water licences and their associated water allocations, have easily understood and equitable conditions for use and the water allocations have a clear surety (a relative priority in times of water usage restrictions).

Water licences entitle holders to take water out of a water resource and:

- are legally separate from land title;
- are specified in volumetric terms;
- are transferable;
- indicate the reliability of the water allocation; and
- are normally issued for ten years, with a clear presumption of renewal in line with provisions under the *Water Management Act 1999*.

This water entitlement is not ‘perpetual’ but is widely recognised in Tasmania as ‘ongoing’. This provides certainty for water users to underpin investment in water dependent industries. While water licences and allocations are granted for a specified period of time, section 80(2) of the WMA provides that upon application by the licensee, a licence and/or allocation is taken to be automatically renewed, provided several conditions are met (eg. the applicant has complied with previous licence conditions and renewal is consistent with the objectives of the WMA).

The WMA does not require the water allocation or the water access entitlement to be specified as a percentage share of the resource. This is not practical given the fact that the vast majority of rivers and streams used for consumptive use are unregulated. In Tasmania the size of the consumptive pool changes with natural streamflow, on a daily, monthly, seasonal and annual basis.

### **Regulatory approvals for water use**

Against the backdrop that paragraph 30 of the NWI relates to unbundling water access entitlements to facilitate trade rather than seeking to impose new components on such entitlements, regulatory approvals for water use in Tasmania are consistent with NWI requirements within the State’s current framework.

The WMA also provides the mechanism for ensuring any water access entitlements are not approved if they do not meet the objectives of the Act and Tasmanian Resource Management and Planning System (RMPS).

### **Water licence register**

Section 12 of the WMA provides that, inter alia, the Minister must keep a register of all licences and permits granted under the Act and make that register available for inspection by any person.

The water licensing system is supported by the Water Information Management System (WIMS), a publicly accessible register with details of all water licences and allocations including the details of any third party interests. More detailed water licence searches are undertaken by DPIW at a minimal cost.

Tasmania has commenced a project to review its water register system and determine potential linkages with land title registration procedures and protocols. The project will draw on the work of the NWI’s Compatible Registers Working Group. This work will be continued over the next year to determine the cost effectiveness of implementing various land title registration procedures and protocols. Activities in relation to enhancements to Tasmania’s water licence register are interrelated to

paragraph 59 of the NWI Agreement relating to the facilitation of water trading (refer to Action 8 of this Implementation Plan).

## Groundwater management

The WMA provides that groundwater may be taken for any purpose without the need for a licence unless another instrument under the Act (eg. Ministerial Order, a Water Management Plan) provides otherwise. This reflects the current situation in most parts of the State where groundwater use is well within sustainable limits

To date, the use of groundwater has not required a licence in any area. However, the increasing use of groundwater for irrigation has led to potentially unsustainable extraction levels in some specific areas. The WMA provides for management intervention, including the licensing and metering of groundwater users in specified areas, where significant problems are identified.

Currently an integrated licensing system is under development that will be implemented where groundwater resources are under stress or need to be managed in a fully coordinated way with surface water. It will be trialed shortly in the Mella and Great Forester catchments.

Such a system will provide security of supply to users, ensuring that future development does not impact on the rights of existing users or the environment.

Groundwater licensing will be implemented as necessary through Water Management Plans and the establishment of prescribed Groundwater Areas in those areas where the objectives of the *Water Management Act 1999* are at risk of not being met.

DPIW is developing a strategic framework to manage groundwater usage within the State. DPIW has the statutory responsibility for groundwater management under the WMA. To undertake this role, DPIW relies on technical expertise from Mineral Resources Tasmania (MRT). The strategic framework being developed for managing groundwater will be used as the basis for further refining the ongoing roles and responsibilities that MRT and DPIW have in relation to groundwater management.

Changes to the WIMS water licensing system will also be undertaken to enable the incorporation of groundwater licensing information.

## Implementation Timetable

Step/Deliverable (Water Access Entitlements)	Start date	End date	Lead Agency
<b>Water access entitlements</b>			
Review current water entitlement framework to ensure appropriate consistency with NWI water access entitlement requirements (IGA 28-34).	Completed	Completed	DPIW
<b>Tasmanian Water Titles Registration Project</b>			
Review the current water entitlement registration system.	Commenced	Dec. 2006	DPIW
Implement the findings of the Review.	Jan. 2007	Dec. 2007	

<b>Water Legislation Review</b>			
Water Resources Division to complete the review of the WMA and related water legislation.	Commenced	Sept. 2006	DPIW
Implement the findings of the WMA review.	Sept. 2006	June 2007	
Review of the SPWQM.	Jan. 2007	End 2007	DTAE
Implement the findings of the SPWQM review.	2008	End 2008	
<b>Integrated groundwater management</b>			
Obtain agreement between DPIW and MRT for the implementation of actions listed in the finalised <i>Groundwater management 2006-2010 a strategic overview and direction</i>	Commenced	Aug. 2006	DPIW
Prioritise groundwater areas for management actions	Commenced	Sept. 2006	
Develop a system to licence groundwater.	Commenced	Dec. 2006	
Trial licensing system in Mella and the Great Forester catchment for the 2006-07 irrigation season.	Oct. 2006	July 2007	
Commence broader implementation of licensing	Jan.2008	On-going	
<b>Common lexicon</b>			
Consider the adoption of the words and phrases in Schedule B(ii), including the need to make further amendments to the WMA to include NWI terminology.	April 2006	July 2006	DPIW
<b>Progress reports to NRMCC</b>			
Legislative and administrative regimes amended to incorporate the elements of the entitlements and allocation framework in the NWI Agreement. (IGA 26(ii).		End 2006	DPIW
Water access entitlements to be defined and implemented. (IGA 28-34).		Immediate	

### **Cooperation with other jurisdictions**

Tasmania will work cooperatively on any nationally coordinated activities in relation to water access entitlements, for example the NWI Compatible Registers Working Group.

### **Link to outcomes in the NWI**

The actions support the following outcomes stated in clause 25 of the NWI IGA:

- i) enhance the security and commercial certainty of water access entitlements by clearly specifying the statutory nature of those entitlements
- vii) in the case of water access entitlements, be compatible across jurisdictions to improve investment certainty, be competitively neutral and to minimise transaction costs on water trades (where relevant).

### **Link to relevant performance indicators**

Await finalisation of performance indicators at the national level.

# Water Access Entitlements and Planning Framework

## 2. Environmental and other public benefit outcomes

### Key action(s) and implementation dates

Key Actions (Environmental and other public benefit outcomes)	Date	IGA paragraph	Responsibility
Water to meet environmental and other public benefit outcomes identified in water plans to be defined, provided and managed.	Immediate	35	States

### Context

Tasmania's current framework for the provision of water for environmental and other public benefit outcomes meets the intent specified in the NWI Agreement.

### Statutory recognition

Under the *Water Management Act 1999* (WMA) water for environmental and other public benefit outcomes can be provided for as an entitlement; or through a rules based system.

#### *Water access entitlement*

Part 6 of the WMA provides for the licensing and allocation of water. Under Part 6 of the Act it is possible to licence a specific "allocation" for the environment if in the form of an allocation for a wetland or a release from a dam for environmental purposes. In such cases the allocation for the environment is treated in the same manner as water allocated for other use. To date no specific allocations have been formally registered in this manner.

As most Tasmanian river systems are run of river systems, water is generally provided on a rules basis to meet agreed environmental and other public benefit outcomes. As such is it generally not appropriate for formal registration as an environmental allocation.

Conditions may be included on a water licence to ensure environmental and other public benefit outcomes are achieved. For example the monthly minimum water releases from the proposed Meander Dam are set as a condition of the 43,000 megalitre water licence for the dam and are designed to provide security and protection for biotic processes of the Meander River. These environmental flows are in the form of a monthly discharge regime that in some part mimics natural or ambient flow variation rather than providing a constant "base flow". It is considered that this

flow variation has the capacity to better protect the ecological values of the Meander River by delivering a more natural seasonal flow variability.

### *Rules based system*

The approach taken in Tasmania for achieving environmental and other public benefit outcomes is to apply a rules based approach through water management planning.

The water management provisions of a Water Management Plan establish the amount of water that can be allocated at various surety levels, taking into account the Plan objectives and the water regime necessary to achieve those objectives, existing water usage and sustainable water allocation limits derived for the Plan area.

The sustainable water allocation limits provide the maximum volume of water that can be extracted from a catchment. The limit is determined after consideration of the environmental water provision required to maintain downstream ecosystems in an agreed condition and the economic and social values associated with the water resource.

Water Management Plans adopt a cease-to-take threshold and restriction management protocols are developed to implement a Plan. Restriction Management Protocols differentially restrict licensed water allocations at different surety levels as flow drops towards agreed cease-to-take thresholds.

### *Security of environmental water*

In Tasmania, environmental water allocations have higher security than all other water uses, except for water for domestic purposes, town supplies, consumption by livestock and fire fighting. There are obviously sound public health and human and animal welfare reasons for this hierarchy.

In Tasmania, stock and domestic use is restricted by the *Water Management Regulations 1999* and town supplies are licensed. Only two-thirds of a town's water allocation is provided at highest surety (surety level 1). The other third is provided at surety level 5 which means that for this part of the allocation the environment has a higher surety than town water.

Any additional water allocations needed by towns for growth and development must be obtained through the normal statutory processes (eg. trading, new allocations for storage) or through water savings (eg. increased water usage restrictions, improved infrastructure).

Tasmania's decentralised population and dense network of rivers and streams means that the use of water for human and stock consumption from any individual watercourse generally constitutes a very small proportion of streamflow. This fact, combined with the existing water surety hierarchy appropriately manages the risk of uncontrolled impacts on environmental water provisions.

## Enhancing Tasmania’s capability for providing environmental and other public benefit outcomes

Water Management Plans have been developed to meet environmental and public benefit outcomes as specified in paragraph 37(i) of the NWI Agreement. In addition to water management planning, many other activities have been implemented to clearly define, provide and manage for environmental and other public benefit outcomes; for example through:

- The Conservation of Freshwater Ecosystems (CFEV) Project to identify, audit, prioritise and recommend conservation strategies for freshwater dependent ecosystem values.
- Ensuring better resource information is available, for example the development of an holistic environmental flow methodology, implementing the State’s Surface Water Quality Monitoring Strategy and developing surface and groundwater models through the Australian Government Water Fund Project: “Better information for better results – enhancing water planning in Tasmania”.
- Establishing Protected Environmental Values for all surface water.
- Resource condition targets and monitoring information provided through the Regional NRM Strategies, including provision of specialist technical advice and support for monitoring and evaluation.
- Targeted monitoring and research activities to determine the effectiveness of environmental water allocations (eg Great Forester and Ringarooma wetlands studies and *Astacopsis* habitat investigation).
- Improved knowledge and understanding of groundwater including the development of a strategy in relation to the protection of groundwater dependant ecosystems through Water Management Plans.

### Implementation Timetable

Step/Deliverable (Environmental and other public benefit outcomes)	Start date	End date	Lead Agency
<b>Enhancing Tasmania’s capability for providing environmental &amp; other public benefit outcomes</b>			
Ongoing implementation of the CFEV Project (for more details see Action 16).	Commenced	On-going	DPIW
Targeted monitoring projects to support environmental and public benefit outcomes (for more details see Action 16).	Commenced	Oct 2007	
Implementation of the holistic environmental flow methodology (for more details see Action 16).	Commenced	Dec. 2008	
Enhanced knowledge of surface-groundwater systems through the implementation of the “Better information for better results – enhancing water planning in Tasmania” Project (for more details see Action 18).	Commenced	Jan. 2008	
Ongoing development and review of Water Management Plans (for more details see Action 3).	Commenced	On-going	

<b>Progress reports to NRMCC</b>			
Water to meet environmental and other public benefit outcomes identified in water plans to be defined, provided and managed. (IGA 35)		End 2006	DPIW

### **Cooperation with other jurisdictions**

Not applicable.

### **Link to outcomes in the NWI**

The actions support the following outcomes stated in clause 25 of the NWI IGA:

- ii) provide a statutory basis for environmental and other public benefit outcomes in surface and groundwater systems to protect water sources and their dependent ecosystems;
- iii) be characterised by planning processes in which there is adequate opportunity for productive, environmental and other public benefit considerations to be identified and considered in an open and transparent way;
- iv) provide for adaptive management of surface and groundwater systems in order to meet productive, environmental and other public benefit outcomes;
- x) identify and acknowledge surface and groundwater systems of high conservation value, and manage these systems to protect and enhance those values.

### **Link to relevant performance indicators**

Await finalisation of performance indicators at the national level.

# Water Access Entitlements and Planning Framework

## 3. Water planning

### Key action(s) and implementation dates

Key Actions (Water planning)	Date	IGA paragraph	Responsibility
Water plans to be prepared along the lines of the characteristics and components at Schedule E based on the following priorities: <ul style="list-style-type: none"> <li>- plans for systems that are overallocated, fully allocated or approaching full allocation;</li> <li>- plans for systems that are not yet approaching full allocation.</li> </ul>	End 2007	39-40	States
	End 2009	39-40	States
Implementation of the framework: <ul style="list-style-type: none"> <li>• substantial completion of plans to address any existing overallocation for all river systems and groundwater resources in accordance with commitments under the 1994 COAG water reform framework.</li> </ul>	End 2005	26 (i)	States
Review existing water plans to ensure they meet requirements of the NWI.	Immediate	26(iii)	States

### Context

Tasmania considers that under the water management planning framework currently implemented in the State, Water Management Plans are prepared along the lines of the characteristics and components outlined in Schedule E of the NWI Agreement.

Water Management Plans present a clear statement of the community's environmental, social and economic objectives for the relevant water resources and describe the water management regime that best gives effect to these objectives.

Part 4 of the *Water Management Act 1999* (WMA) details the statutory process for the preparation, development, adoption and implementation of a Water Management Plan. Water management planning is also supported formally through the *Generic Principles for Water Management Planning* (Water Resources Policy #2005/1) that provide a clear and consistent approach to dealing with planning matters outside the prescribed requirements of the WMA. The principles also include guidance on the community consultation processes.

Typically a Water Management Plan consists of:

- Part 1 – Introduction: includes details of the scope of a Plan.
- Part 2 – Plan objectives: relating to values identified for the environment, water use and development, water management and recreational and commercial activities within the Plan area that are dependent on the water resources.
- Part 3 – Water management provisions that are designed to meet specific Plan objectives.
- Part 4 – Monitoring activities that will support the implementation of a Plan.
- Part 5 – Statutory requirements and assessments required in accordance with the WMA.

Water Management Plans clearly describe the water resources to which they relate as well as the environmental, social and economic objectives identified for those water resources. The water management provisions provide the mechanisms through which specific Plan objectives can be met, including water allocation limits that will define the volume and timing of water available for sustainable allocation at various sureties. Plans may also include those issues to be considered in the approval of water licences and dam permits applications as well as various water management arrangements for mitigating impacts resulting from the taking of water.

### **Progress to date**

Tasmania does not have any identified overallocated river systems and therefore has no COAG 1994 Water Reform Framework commitments to meet in relation to developing Plans for overallocated systems.

To date five Water Management Plans have been formally adopted. Work has also commenced on other Water Management Plans as outlined in the implementation timetable.

In 1999 Tasmania determined a list of 16 priority catchments for the development of Water Management Plans in accordance with its obligations under the 1994 COAG Water Reform Framework. Since the determination of the priority catchments in 1999, Tasmania has enhanced its understanding of the status of these river systems through the implementation of a range of river health and water quality programs.

Tasmania has also developed a strategic framework for sustainable use and development of its water resources, which provides the foundation for water management planning. Since the commencement of water management planning a number of initiatives have been implemented under this framework, in support of the objectives of the *Water Management Act 1999*. These initiatives include:

- Legislative reform;
- Sustainable water allocation framework, policies and guidelines;
- The *Water for Ecosystems Policy* and the determination of minimum environmental water requirements across Tasmania's developed catchments;

- The development of a new holistic methodology/framework for assessing environmental water requirements in Tasmania’s catchments;
- Establishing generic principles for water management planning;
- The Water Use Sustainability Project (WUSP), aimed at preventing further creep in overuse;
- The Conservation of Freshwater Ecosystem Values (CFEV) Project to identify, audit and recommend conservation strategies for key freshwater dependent ecosystem values;
- Development of water balance models; and
- Monitoring of river health, streamflow and water quality.

The strategic framework has been enhanced with the recent completion of the Conservation of Freshwater Ecosystem Values database. Further enhancement will come with initiatives such as the continued development of surface water models and groundwater models under the Australian Government Water Fund project “Better information for better results – enhancing water planning in Tasmania”.

This framework has been developed to the extent that Water Management Plans are now recognised as the mechanism for bringing the outputs of the various work activities under the framework together rather than being the mechanism for initiating these activities. Tasmania is now in the position of having the basic supporting components of a Water Management Plan in place over an extensive range of catchments.

### **Future planning developments**

Given the extent to which elements of the strategic framework for sustainable use and development of water resources has been implemented across Tasmanian catchments, it is timely to review the priorities for water management planning. This review will be undertaken to determine where a statutory Water Management Plan is the most effective mechanism to determine water management and allocation decisions to meet productive, environmental and social objectives. This will be based on an assessment of the level of water development, projected future demand and the risks of not having a detailed plan.

For catchments where a risk assessment indicates a low risk of not having a detailed plan, the existing water management framework will be strengthened where necessary by putting in place statutory-based measures to ensure productive, environmental and social objectives continue to be met. Under this approach, certainty can be provided to water users and environmental outcomes can be achieved without the delay of waiting for a formal Water Management Plan to be developed. The water development status of these catchments will be reviewed over time to ensure that the risk of not having a detailed plan remains low.

At present, Water Management Plans are being developed for the Ringarooma and South Esk catchments. Work will progress through 2006 to finalise these plans. In

addition, Cradle Coast NRM Region is undertaking a project to develop a number of Water Management Plans over the next three years. The Inglis Catchment Water Management Plan will be the initial plan developed under this project.

In addition to these plans under development, Tasmania will develop Water Management Plans for the Macquarie-Elizabeth, Meander, Jordan, and Coal catchments over 2007-2009. A formal Water Management Plan will provide the most effective mechanism to ensure agreed productive, environmental and social objectives are met in these catchments.

Over this period, it is expected that a number of additional Water Management Plans will be completed concurrently for relevant catchments identified through the review of priorities. It is acknowledged that the timeframes set out under Schedule A for the completion of Plans are relatively tight. However, with the basic supporting components of a Water Management Plan in place over an extensive range of catchments, it is envisaged that these additional Plans will require a lower level of resourcing and should be able to be completed within shorter timeframes.

Linkages also exist between the water management planning process and the Water Management Review (WMR) Program. The WMRs are a systematic review of Hydro Tasmania's water management practices that identify opportunities to improve environmental, economic or social outcomes. The process of the WMRs includes community consultation and scientific study, and consideration of options to find a balance between the environmental, social and economic demands on water in Hydro Tasmania catchments. Appropriate and practical options are implemented through the organisation's water operating rules and Aquatic Environment Program.

In 1999 Hydro Tasmania commenced the WMR Program which will be carried out in each of Hydro Tasmania's six major catchments. The WMRs are designed to produce outputs which are compatible with and which complement the requirements for a Water Management Plan under the *Water Management Act 1999*. The consistency in process is to allow incorporation of information arising from any given Water Management Review into a Water Management Plan as appropriate.

Hydro Tasmania's WMR for the South Esk – Great Lake catchment, was released in 2003. Work is now underway on the Derwent Catchment Water Management Review which is expected to be completed in 2007. The order of priority for Hydro Tasmania's remaining WMRs is Mersey-Forth, Pieman-Anthony, King and Gordon catchments. Hydro Tasmania expects that a new study will commence every two years.

Information to support a Water Management Plan will be enhanced further during 2006-08 through the following projects:

- The Australian Government Water Fund Project: "Better information for better results – enhancing water planning in Tasmania" will provide a significant improvement in the understanding of the interrelation between key groundwater - surface water systems.
- Ongoing implementation and ground-truthing of the CFEV project.
- Completion of the WUSP across the developed catchments in the State.

- Development and application of a comprehensive catchment planning tool to determine the impact of forest plantations on in-stream water availability, initially tested in the Ringarooma catchment. Once the modelling work is refined, extended application of the tool to other relevant catchments where significant plantation forest development is proposed would occur concurrently with the development of surface and groundwater models under the Australian Government Water Fund project.
- Improved knowledge and understanding of groundwater including the development of a strategy in relation to the consideration of groundwater dependant ecosystems in Water Management Plans.

Once improved data to enhance the understanding of surface-groundwater interactions is available, this will be included in water management planning where it is considered to be an important issue.

### Implementation Timetable

Step/Deliverable (Water planning)	Start date	End date	Lead Agency	
<b>Adopted Water Management Plans</b>				
Review existing water plans to ensure they meet requirements of the NWI, in particular Schedule E.	Commenced	July 2006	DPIW	
Formal reviews of adopted Water Management Plans: <ul style="list-style-type: none"> <li>• Great Forester WMP</li> <li>• River Clyde and Lakes Sorell and Crescent WMPs</li> <li>• Little Swanport WMP</li> <li>• Mersey WMP</li> </ul>	2006 2009 2011 2015	2006 2009 2011 2015		
<b>Improved knowledge to support water planning</b>				
Enhanced knowledge of surface-groundwater systems through the implementation of the “Better information for better results – enhancing water planning in Tasmania” Project (for more details see Action 18).	Commenced	Jan. 2008		DPIW
Ongoing implementation of the CFEV Project (for more details see Action 16).	Commenced	On-going		
Completion of the WUSP across the developed catchments in the State (for more details see Action 4).	Commenced	Dec. 2006		
Development and application of the comprehensive catchment planning tool in the Ringarooma catchment (for more details see Action 7).	Commenced	Dec. 2006		
Integration of forest hydrology modelling components with existing and new catchment water balance models to provide catchment planning tool for all relevant catchments where significant plantation forest development is proposed.	Oct. 2006	Jan 2008		
Consideration of groundwater dependant ecosystems through utilisation of CFEV	On-going	On-going		

<b>Preparation of new Water Management Plans</b>			
Review priorities for water management planning	Commenced	July 2006	DPIW
Develop Water Management Plans in accordance with the review of water management planning priorities: <ul style="list-style-type: none"> <li>• Meander River including the Liffey River</li> <li>• Macquarie river including the Elizabeth and Tooms Rivers</li> <li>• Jordan River</li> <li>• Coal River</li> <li>• Others as identified</li> </ul>	July 2006	End 2009	
Completion of Water Management Plans currently under development <ul style="list-style-type: none"> <li>• Upper and Lower Ringarooma River including the Ledgerwood River</li> <li>• South Esk River (upstream of Macquarie including St Pauls and Nile Rivers)</li> </ul>	Commenced	Mid 2007	
Development of Water Management Plans in the Cradle Coast NRM region	Commenced	2009	Cradle Coast NRM
Review of undeveloped catchments to confirm no significant changes in water development status has occurred.	2008	On-going	DPIW
<b>Integration of Hydro Tasmania's water management reviews</b>			
Derwent Catchment WMR.	Commenced	2007	Hydro Tas
WMRs developed for other Hydro Tasmania catchments (Mersey-Forth, Pieman-Anthony, King and Gordon).	2007	2015	
Integrate the findings of WMRs into water management planning as necessary.	On-going	On-going	DPIW
<b>Reporting on Plans</b>			
Reporting of activities as part of existing Water Management Plans. <ul style="list-style-type: none"> <li>• Annual interim monitoring and assessment report for the Great Forester Water Management Plan.</li> <li>• Development of an approach to monitor the achievements of Plan objectives.</li> <li>• Reporting on the achievements of objectives for existing Plans.</li> </ul>	Annual June 2006 Dec. 2006	Annual June 2007 On-going	DPIW
<b>Progress reports to NRMCC</b>			
Water plans to be prepared along the lines of the characteristics and components at Schedule E based on the following priorities: <ul style="list-style-type: none"> <li>• plans for systems that are overallocated, fully allocated or approaching full allocation;</li> <li>• plans for systems that are not yet approaching full allocation (IGA 39).</li> </ul>		End 2007 End 2009	DPIW

<p>In the implementation of water plans, the Parties will</p> <ul style="list-style-type: none"> <li>• monitor the performance</li> <li>• factor in knowledge improvements; and</li> <li>• provide regular public reports. (IGA 40)</li> </ul>		On-going	DPIW
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### **Cooperation with other jurisdictions**

Not applicable.

### **Link to outcomes in the NWI**

The actions identified will directly align with the following outcomes stated in clause 25 of the NWI IGA:

- iii) be characterised by planning processes in which there is adequate opportunity for productive, environmental and other public benefit considerations to be identified and considered in an open and transparent way;
- viii) reflect regional differences in the variability of water supply and the state of knowledge underpinning regional allocation decisions;

### **Link to relevant performance indicators**

Await finalisation of performance indicators at the national level.

# Water Access Entitlements and Planning Framework

## 4. Addressing currently over allocated and/or overused systems

### Key action(s) and implementation dates

Key Actions (Addressing currently over allocated and/or overused systems)	Date	IGA paragraph	Responsibility
Substantially complete addressing overallocation as per NCC commitments.	2005	41	States
Substantial progress toward adjusting all <i>overallocated</i> and/or <i>overused</i> systems.	End 2010	43 - 45	All Parties

### Context

#### Over allocation

Water is allocated in Tasmania under various levels of “surety” that reflect the reliability of flows in a river system and in general, water is allocated such that overall reliability of those allocations is high. Being able to allocate water at different levels of surety has made it possible to provide water users with access to water to underpin current and proposed water reliant agricultural businesses whilst ensuring that existing users and the environment are not adversely impacted. For example, the general surety for existing water allocations for irrigation (surety level 5) is around eighty percent (that is, users can expect to receive their full allocation in eight years out of every ten).

The introduction of a moratorium on the issue of new water entitlements during summer in 1995 has ensured that any new allocations for summer takes will only be granted where appropriate environmental flow regimes have been established. This has protected the rights of existing users and the environment from over-allocation. As a result Tasmania does not have any identified over-allocated river systems and no COAG 1994 water reform framework commitments regarding over-allocation.

#### Overuse

##### *Surface water*

In some areas of Tasmania, some water users have historically extracted greater quantities of water than strictly permitted by their licences. In 2003 Tasmania initiated the Water Use Sustainability Project (WUSP). Through the WUSP, historical water use is formally recognised (and granted as a lower surety water allocation on licences) where required to underpin existing commercial enterprises. In addition,

through WUSP the installation of meters on irrigation abstractions is coordinated and water restriction triggers are developed.

Under the WUSP, voluntary surveys are conducted to establish evidence of any over-allocation water usage by individual irrigators in the 2002-03 baseline year. Where continued access to this over-allocation water is deemed necessary to underpin existing commercial investments, the water user is granted a surety 6 allocation to cover this level of allocation. WUSP meets the requirements of paragraph 97(i) of the NWI in relation to adjustment.

Tasmania has implemented the WUSP in advance of water management planning and provides a mechanism through which Tasmania is addressing historical overuse of water allocations. River systems where the WUSP process is being implemented have been categorised as follows:

- **Tier 1** – high priority river systems where the formalisation of rights and restriction management protocols are complete (Brid River, Inglis and Flowerdale Rivers, Mountain River, Rubicon River, Clayton’s Rivulet, Forth River, Duck River, Pipers River and Little Forester River).
- **Tier 2** – priority river systems where water use survey data is currently being analysed and it is expected that rights will be formalised by mid 2006 (North Esk River, Ansons/Musselroe Rivers, Boobyalla/Tomahawk Rivers, Georges River, Chasm Creek, Gawler River, Mersey River).
- **Tier 3** – outstanding river systems where overuse needs to be addressed through WUSP procedures.

Overuse has also been addressed through appropriate water management provisions in the Great Forester, River Clyde and Mersey Water Management Plans and where necessary will be addressed in Water Management Plans currently under development. Principles 7 and 8 of the *Generic Principles for Water Management Planning* (Water Resources Policy #2005/1) provide an approach that mirrors that used in the WUSP for dealing with overuse.

### *Groundwater*

Under the *Water Management Act 1999* (WMA), groundwater users generally do not need a licence to take groundwater for use for any purpose. This reflects the current situation in most parts of the State where groundwater use is considered to be well within sustainable limits.

However, increased pressure is being exerted on groundwater resources, particularly in intensive irrigation areas, following recent dry summers and the increasing restrictions on the use of surface water.

A number of high intensity groundwater use areas have been identified including Mella, Broadmarsh, Togari and Forest in the north-west; Wesley Vale, Moriarty, Sassafras, Sheffield, Spreyton and Longford in the north; and Dolphin Sands and Sorell in the south-east. These are high priority areas for further assessment and where necessary, regulatory intervention to ensure fair and equitable sharing of the water resources and to protect the water resource and its dependent ecosystems.

In the event of intensive use of groundwater resources, the WMA provides for management intervention, including the licensing and metering of groundwater users in specified areas, where significant problems are identified.

Groundwater licensing will be introduced over the coming years as necessary through Water Management Plans and the establishment of prescribed Groundwater Areas in those areas where water usage means that the objectives of the WMA are not being met.

Other measures being undertaken to improve Tasmania’s ability to sustainably manage and develop groundwater resources into the future include:

- Groundwater models developed through the Australian Government Water Fund Project: “Better information for better results – enhancing water planning in Tasmania.”
- Groundwater use registers developed as part of the State’s 5 Water Management Plans as well as in proclaimed Groundwater areas.
- Development of a licensing system for drillers to ensure the regulation of all bores drilled.
- Improvements to the groundwater monitoring network.

### Implementation Timetable

Step/Deliverable (Addressing currently over allocated and/or overused systems)	Start date	End date	Lead Agency
<b>Surface water overuse</b>			
Complete WUSP process for Tier 1 river systems.	Commenced	Completed	DPIW
Complete WUSP process for Tier 2 river systems.	Commenced	Nov. 2006	
Develop work program and priorities for Tier 3 river systems.	Commenced	Completed	
Undertake WUSP process for Tier 3 river systems.	Commenced	June 2008	
<b>Groundwater overuse</b>			
Prioritise groundwater areas for management actions.	Commenced	Sept. 2006	DPIW
Enhanced knowledge of surface-groundwater systems through the implementation of the “Better information for better results – enhancing water planning in Tasmania” Project (for more details see Action 18).	Commenced	Jan. 2008	
Development of groundwater registers as required in Water Management Plans and for relevant Groundwater Areas.	Commenced	On-going	
Development of a groundwater licensing system: <ul style="list-style-type: none"> <li>• Drillers licensing system; and</li> <li>• Water entitlement licensing system (for more details see Action 1).</li> </ul>	Commenced	End 2007	
Improved groundwater monitoring network	July 2006	July 2008	

<b>Progress reports to NRMCC</b>			
Substantial progress toward adjusting all overallocated and/or overused systems. (IGA 43-45)		end 2010	DPIW

### **Cooperation with other jurisdictions**

Not applicable.

### **Link to outcomes in the NWI**

The actions support the following outcomes stated in clause 25 of the NWI IGA:

- v) implement firm pathways and open processes for returning previously overallocated and/or overdrawn surface and groundwater systems to environmentally-sustainable levels of extraction;

### **Link to relevant performance indicators**

Await finalisation of performance indicators at the national level.

# Water Access Entitlements and Planning Framework

## 5. Assigning risks for changes in allocation

### Key action(s) and implementation dates

Key Actions (Assigning risks for changes in allocation)	Date	IGA paragraph	Responsibility
Risk assignment framework to be implemented immediately for all changes in allocation not provided for in overallocation pathways in water plans.	Immediate	46-50	States

### Context

The risk assignment framework for all changes in allocation other than those provided for in pathways for dealing with overuse/overallocation (Action 4) and addressed through Water Management Plans (Action 3) requires the implementation of the following:

- Reductions arising from natural events such as climate change, drought or bushfire be borne by licence holders at all times.
- Reductions arising from bona fide improvements in the knowledge about the capacity of water systems to sustain particular extraction levels would be borne by licence holders up to 2014.
- After 2014, reductions arising from bona fide improvements in the knowledge about the capacity of water systems to sustain particular extraction levels would be borne:
  - by licence holders for the first 3% reduction in water allocation;
  - by the Tasmanian Government and the Commonwealth Government for reduction in water allocations of between 3% and 6% (one-third and two-thirds share respectively); and
  - by the Tasmanian Government and the Commonwealth Government for reduction in water allocations above 6% (shared equally).
- Reductions arising from changes in government policy not previously provided for would be borne by the Tasmanian government.
- Where there is voluntary agreement between the Tasmanian Government and key stakeholders, a different risk assignment model to the above may be implemented.

This risk assignment framework is in accordance with the requirements specified in paragraphs 46 to 50 of the Agreement.

Through the *Water Management Act 1999* (WMA), Tasmania already has an effective risk assignment framework in place. This includes:

- A clear and secure system of water access entitlements. The WMA does not require the water or the water access entitlement to be specified as a share of the resource due to the practicalities of applying such a system in unregulated rivers. In Tasmania the size of the consumptive pool changes with natural streamflow, on a daily, monthly, seasonal and annual basis and Tasmania's water access entitlements system has been designed to reflect this situation.
- Development of Water Management Plans that provide a transparent process to determine water allocations, including assessment of the impacts of a Plan by an independent statutory authority (the RPDC).
- Regular reporting of progress with implementing Water Management Plans through DPIW's annual reporting requirements.
- Pathways for dealing with known overuse, for example through the Water Use Sustainability Project. Pathways for dealing with overallocation have not been developed as this is not considered to be an issue in Tasmania.

There are two phases to the NWI risk assignment framework:

1. the current arrangements (applying until 2014); and
2. the post-2014 arrangements.

Phase 1 requires the Tasmanian Government to bear the costs of changes to water access entitlements resulting from government policy not provided for by Water Management Plans. Changes arising from natural events or improvements in knowledge are borne by licence holders. After 2014, the main change is that the costs of changes in access resulting from improvements in knowledge are then shared between licence holders, the Tasmanian Government and Commonwealth Government.

Section 89 of the WMA provides the existing arrangements for compensation in Tasmania. These arrangements enable compensation to be claimed where water allocations are altered in a manner not provided for through the water management planning process, and which have the effect of reducing a licence holder's water allocation (this is regardless of whether the change is policy or knowledge driven).

Legislative amendments to the WMA will be made as necessary to incorporate the post-2014 risk assignment framework, and a framework for implementing the post-2014 framework will be developed before the end of this Agreement.

## Implementation Timetable

Step/Deliverable (Assigning risks for changes in allocation)	Start date	End date	Lead Agency
<b>Post-2014 arrangements</b>			
Draft operational framework developed for implementing the post 2014 arrangements.	2011	2011	DPIW
Consultation and development of a Memorandum of Understanding with the Commonwealth regarding the post-2014 arrangements.	2011	2012	
Finalise operational framework.	2012	2013	
Risk assignment framework commences.	2014		
<b>Progress reports to NRMCC</b>			
Risk assignment framework to be implemented immediately for all changes in allocation not provided for in overallocation pathways in water plans (IGA 46-51).	Immediate		DPIW

## Cooperation with other jurisdictions

Tasmania will develop a Memorandum of Understanding with the Commonwealth Government regarding the operational framework to implement the NWI risk assignment framework post-2014. In developing an appropriate operational framework, Tasmania may also draw on work undertaken by other States/Territories.

## Link to outcomes in the NWI

The actions support the following outcomes stated in clause 25 of the NWI IGA:

- vi) clearly assign the risks arising from future changes to the consumptive pool;
- viii) reflect regional differences in the variability of water supply and the state of knowledge underpinning regional allocation decisions;

## Link to relevant performance indicators

Await finalisation of performance indicators at the national level.

# Water Access Entitlements and Planning Framework

## 6. Indigenous Access

### Key action(s) and implementation dates

Key Actions (Indigenous access)	Date	IGA paragraph	Responsibility
Water plans to address indigenous water issues.	Immediate	52 - 54	States

### Context

Currently the *Water Management Act 1999* (WMA) does not include any direct reference to indigenous water rights as this issue was not raised during the consultation phase prior to the proclamation of the WMA nor during the 2005 review of the Act. Nevertheless, indigenous rights are covered through provisions in Part 5 of the WMA relating to water rights for persons in their casual use of land.

Water Management Plans provide the opportunity for catchment communities and other stakeholders to have a direct say in how a catchment's water resources are best managed to achieve the community's economic, social and environmental objectives. The objectives of a Water Management Plan provide the basis upon which a Plan's water management provisions are developed. Objectives relate to values identified for the environment, water use and development, water management and recreational and commercial activities within the Plan area that are dependent on the water resources. This may include the consideration of indigenous access to water.

The *Generic Principles for Water Management Planning* (DPIWE 2005, Water Resources Policy #2005/1) provides the process that is used in Tasmania to foster community input in the planning process.

The Tasmanian Government through the Office of Aboriginal Affairs (OAA) will identify the interest of the Tasmanian Aboriginal Land and Sea Council (TALSC) in amending the current process of consideration of indigenous water issues within the water management planning process. The *Generic Principles for Water Management Planning* will then be amended to reflect any changes.

## Implementation Timetable

Step/Deliverable (Indigenous access)	Start date	End date	Lead Agency
<b>Indigenous issues in water management planning</b>			
Liase with the OAA regarding the current process for dealing with indigenous issues in Water Management Plans.	Commenced	Sept. 2006	DPIW
If OAA consider it necessary, invite comment from TALSC on the current process for dealing with indigenous issues in Water Management Plans.	Sept. 2006	Oct. 2006	
Amend <i>Generic Principles for Water Management Planning</i> in line with comment received from TALSC.	Oct. 2006	Nov. 2006	
<b>Progress reports to NRMCC</b>			
Water plans to address indigenous water issues (IGA 52-54).	Immediate		DPIW

## Cooperation with other jurisdictions

Not applicable.

## Link to outcomes in the NWI

The actions support the following outcome stated in clause 25 of the NWI IGA:

- ix) recognise indigenous needs in relation to water access and management;

## Link to relevant performance indicators

Await finalisation of performance indicators at the national level.

# Water Access Entitlements and Planning Framework

## 7. Interception

### Key action(s) and implementation dates

Key Actions (Interception)	Date	IGA paragraph	Responsibility
Implementation of measures to address water interception by land use change activities on a priority basis in accordance with water plans.	No later than 2011	55 - 57	States

### Context

Paragraph 55 of the NWI Agreement states that:

*“ The Parties recognise that a number of land use change activities have potential to intercept significant volumes of surface and/or groundwater now and in the future. Examples of such activities that are of concern, many of which are currently undertaken without a water access entitlement, include:*

- *farm dams and bores;*
- *intercepting and storing of overland flows; and*
- *large-scale plantation forestry.”*

The Parties to the NWI also recognise that if these activities are not subject to some form of planning and regulation, they present a risk to the future integrity of water access entitlements and the achievement of environmental objectives for water systems (paragraph 56). The NWI therefore requires Tasmania and other signatories to assess the significance of such activities on catchments and aquifers, based on an understanding of the total water cycle, the economic and environmental costs and benefits of the activities of concern, and to apply appropriate planning, management and/or regulatory measures where necessary to protect the integrity of the water access entitlements system and the achievement of environmental objectives.

In Tasmania, the relevant interception activities are:

- interception of water by bores;
- interception and storage of dispersed surface water;
- interception of water by dams;
- interception of water as a result of large scale land use change.

Water interception by bores, interception and storage of dispersed surface water and interception by dams are able to be managed through the existing provisions of the *Water Management Act 1999* (WMA). The WMA enables appropriate risk management measures to be implemented to address any existing or potential adverse impacts from these activities, for example through:

- Licensing and water allocation provisions (including use of the *Guidelines To Assess Applications For New Water Allocations From Watercourses During Winter* (Water Resources Policy #2003/1).
- Measures prescribed by regulation.
- Water management planning.
- Proclamation of Groundwater Areas.

*Enhancing controls on interception by bores*

Tasmania recognises that the current information on sustainable allocation limits for, and usage of, groundwater resources in the State is limited and this is being addressed through implementation of a range of groundwater management actions highlighted in this Implementation Plan including:

- Action 1 – Water Access Entitlements: development of an integrated groundwater licensing system.
- Action 18 – Consolidated Water Accounts: development of up to twenty surface-groundwater balance models as part of the Australian Government Water Fund Project: “Better information for better results – enhancing water planning in Tasmania.”
- Development of groundwater registers as required for water management planning and for relevant Groundwater Areas.
- Development of a driller’s licensing system.

*Interception resulting from large scale land use change*

The Tasmanian Government recognises that the hydrological impact of large scale land use change is an important issue for the State, and will ensure that any measures developed to meet the NWI commitments are based on best available science and implemented following consultation with key stakeholders.

As recognised under the NWI, plantation forestry is a key large scale land use change activity which has a potential impact on water availability.

This State’s broad natural resource management policies acknowledge that well planned, sustainably managed and strategically located plantations can help redress some of the environmental problems facing rural and regional communities. However, there is no “one size fits all” solution that can be applied across Tasmania. Economic, environmental and social factors all have to be considered in making balanced decisions on water.

The approach being developed by the Tasmanian Government will ensure that the expansion of the plantation estate will be achieved while maximising the environmental and other benefits associated with these activities and minimising any negative impacts on water.

Tasmania’s plantation activities are carried out in line with the *Forest Practices Act 1985* (which includes provisions for the Forest Practices Code which is administered

by an independent statutory body: the Forest Practices Authority) and specific guidelines which ensure that best practices are followed with a view to protecting water, soil, and other resources.

To meet this commitment under the NWI, the Tasmanian Government will develop water and land use policies which are based on the best available science and balance community expectations with economic development. To achieve this outcome, the Government is supporting ongoing research initiatives into these issues at the regional, State and national level.

At present, there is limited scope to evaluate the risk of changes in water balance/availability at the sub-catchment scale caused by smaller scale land use changes. A modelling tool recently developed by CSIRO (TasLucas) can assess the overall magnitude of potential changes in catchment water yield in response to changes in forest cover, however, its outputs are limited to annual average responses.

DPIW, in partnership with the Forest Practices Authority (FPA), will undertake a project to scope and develop a comprehensive catchment planning tool, integrating forest hydrological modelling components and surface and groundwater modelling components. This tool will enable scenario comparisons on a monthly or seasonal time step to fully compare forest water use with subcatchment water allocations in different seasons. The tool will be used to identify sub-catchments where the risk of significant hydrological change is high under proposed land use changes associated with plantation forestry, and to assess how far downstream these risks might extend, and also those situations where the incremental risk is low.

This catchment planning tool will initially focus on plantation forestry, which has been given a higher priority on the basis of current risk (in terms of local effects and spatial extent). Other large-scale land use change activities will be considered at a later stage pending further risk assessment of their potential impact on water availability.

Once developed, this tool will be tested initially in the Ringarooma catchment in North East Tasmania, as part of the development of the Ringarooma Water Management Plan. The tool will be used to evaluate current impacts of plantation forests on catchment water yields, and the amount of water likely to be intercepted over the life of the Water Management Plan based on estimated forest plantation activities over that period.

The outcomes from this project will be assessed with a view to evaluating the tool's potential to assess plantation forest interception on a statewide basis, in catchments where significant plantation forestry development is proposed. Extended application of the tool to other catchments would occur concurrently with the development of surface and groundwater models under the Australian Government Water Fund project "Better information for better results – enhancing water planning in Tasmania".

The Tasmanian Government's Inter-departmental Committee on Water Policy will establish an Expert Working Group on Interception, which will support the development of risk management strategies that take account of environmental and

socioeconomic issues in relation to water interception by forestry plantations. However, it is too early to say what the risk management strategy may include.

### Implementation Timetable

Step/Deliverable (Interception)	Start date	End date	Lead Agency
<b>Maintaining controls on interception by dams</b>			
Ensure compliance with relevant provisions of the <i>Water Management Act 1999</i> to ensure that applications for permits for dam works and related water allocations are appropriately assessed.	On-going	On-going	DPIW
<b>Enhancing controls on interception by bores</b>			
Enhanced knowledge of surface-groundwater systems through the implementation of the “Better information for better results – enhancing water planning in Tasmania” Project (for more details see Action 18).	Commenced	Jan. 2008	DPIW
Development of groundwater registers as required in Water Management Plans and for relevant Groundwater Areas.	Commenced	On-going	
Development of a groundwater licensing system: <ul style="list-style-type: none"> <li>• Drillers licensing system; and</li> <li>• Water entitlement licensing system (for more details see Action 1).</li> </ul>	Commenced	End 2007	
<b>Interception from large scale plantation forests</b>			
Scope and develop comprehensive catchment planning tool and test in the Ringarooma catchment: <ul style="list-style-type: none"> <li>• Technical working group involving DPIW, FPA established.</li> <li>• Scoping and development of tool.</li> <li>• Tool applied in Ringarooma catchment.</li> <li>• Results incorporated into draft Water Management Plan.</li> </ul>	Completed  Commenced Oct. 2006	Completed  Oct. 2006 Oct. 2006 Dec. 2006	DPIW
Enhancement of modelling capabilities within DPIW: <ul style="list-style-type: none"> <li>• Integrate forest hydrology modelling components with existing and new catchment water balance models to provide catchment planning tool for all relevant catchments.</li> </ul>	Oct. 2006	Jan. 2008	
Development of a risk management strategy for plantation forest interception in Tasmania: <ul style="list-style-type: none"> <li>• Inter-Departmental Committee on Water Policy establish Expert Working Group on Interception.</li> <li>• Assess results of modelling to identify catchments where risk of significant hydrological change is high under proposed land use change associated with plantation forestry.</li> <li>• Develop risk management strategy.</li> <li>• Consultation on risk management strategy.</li> <li>• Assess information received from consultation.</li> </ul>	Oct 2006  Oct. 2006  2008	Oct 2006  Jan. 2008  On-going	DPIW

<ul style="list-style-type: none"> <li>Implement risk management strategy dealing with the impact of large scale plantation forests on water access entitlements.</li> </ul>		No later than 2011	
Participate in any national coordinated work through the NRMMC NWI Working Group in relation to interception.	2007	2011	DPIW
<b>NRMMC working group input</b>			
Report on progress to NRMMC.		2006	DPIW
NRMMC NWI Working Group to determine if there is scope for coordination in relation to interception.		2006	NRMMC NWI WG

### **Cooperation with other jurisdictions**

Tasmania will work with other jurisdictions to further actions for addressing interception through any actions coordinated by the NRMMC NWI Working Group and through direct liaison with other jurisdictions as appropriate.

### **Link to outcomes in the NWI**

The actions identified will directly align with the following outcomes stated in clause 25 of the NWI IGA:

- x) protect the integrity of water access entitlements from unregulated growth in interception through land-use change.

### **Link to relevant performance indicators**

Await finalisation of performance indicators at the national level.

# Water Markets and Trading

## 8. Facilitating intra and interstate trade

### Key action(s) and implementation dates

Key Actions (Facilitating intra and interstate trade)	Date	IGA paragraph	Responsibility
Adoption of publicly accessible, compatible systems for registering water access entitlements and trades consistent with Schedule F: <ul style="list-style-type: none"> <li>• pathways leading to full implementation; and</li> <li>• full implementation.</li> </ul>	End 2004 End 2006	59 59	States States
Establish compatible institutional and regulatory arrangements that facilitate trade, including arrangements consistent with principles in Schedule G: <ul style="list-style-type: none"> <li>• re institutional barriers to trade:               <ul style="list-style-type: none"> <li>- remove barriers to temporary trade,</li> <li>- remove barriers to permanent trade up to an annual threshold of 4 percent,</li> <li>- review impact on trade of interim threshold,</li> <li>- full removal of barriers to trade.</li> </ul> </li> </ul>	End 2007  Immediate Immediate  2009 End 2014	60  60(iv)(a) 60(iv)(b)  60(iv)(b)	States  States States States
Complete the following studies and consider implementation of any recommendations: <ul style="list-style-type: none"> <li>• review of water products,</li> <li>• new approach to sharing delivery capacity and extraction rates among users,</li> <li>• feasibility of establishing market mechanisms such as tradeable salinity and pollution credits to provide incentives for investment in water-use efficiency and farm management strategies and for dealing with environmental externalities.</li> </ul>	June 2005 June 2005 June 2005	61(i) 61(ii) 61(iii)	All Parties All Parties All Parties

### Context

To date, limited water trading has occurred in Tasmania and the market place tends to be spatially disconnected as a result of the relatively small catchments in the State. The majority of water trading, other than that directly related to rural property sales, has occurred within the major irrigation schemes and through privately arranged physical transfers between landholders. Currently substantial water trading is occurring between Hydro Tasmania and irrigators. A Memorandum of Understanding signed in 2003 between DPIW, Hydro Tasmania and the Tasmanian Farmers and Graziers Association will result in over 50,000 megalitres being transferred from Hydro Tasmania to irrigators over several years. Under the MoU, the transfer

arrangements provide security of water entitlements for irrigators while not significantly impacting on Hydro Tasmania's commercial operations.

In recent years there has been increased interest in opportunities to trade water and Tasmania is undertaking some targeted work to facilitate trade amongst users. The actions identified in the Implementation Plan reflect this need and the fact that Tasmania's institutional and regulatory arrangements clearly support the development of water markets and trading where interest exists.

### **Institutional and regulatory frameworks to facilitate trade**

Tasmania has established institutional and regulatory arrangements for the permanent and temporary trade of unregulated system licences and allocations and irrigation scheme rights considered to be consistent with the principles in Schedule G of the NWI Agreement.

#### *Unregulated systems*

Under the *Water Management Act 1999*, water licences are separated from land titles. A licence entitles the holder to take water out of a water resource under the terms of the licence. A water allocation (or allocations) is attached to the licence and specifies the amount of water that can be taken under the licence and the purpose for which the water is taken.

Water licences and/or allocations can be transferred either permanently or temporarily. Licences can be permanently transferred or temporarily leased with or without an allocation. A temporary or permanent transfer of a water allocation can only occur if the recipient holds a water licence. A temporary transfer may be for any period of time up to the terms of the relevant water licence.

The *Guiding Principles for Water Trading in Tasmania* (Water Resources Policy #2003/2) provides the basis for the assessment of all applications for the transfer of water licences and allocations under the *Water Management Act 1999*. The Guiding Principles were developed based on the National Water Reform Task Group's *Report on Enhancing Water Trading*.

Under the principles, a transfer can only be approved:

- if the transfer would not have a significant impact on other water users or the environment; and
- with the consent of any person noted on the register of water licences as having an interest in the licence.

Further, under the principles, conditions imposed on extraction, diversion and use of the transferred water should only be used to manage: environmental impacts, hydrological, water quality, hydrogeological and geomorphological impacts; delivery constraints; and/or impacts on other water users.

Trading zones and exchange rates for trade within and between the zones are also addressed in the principles. Trades within a trading zone (the section of a single water resource between major tributaries) can occur freely without the need for in-depth site

impact assessment. Trades between trading zones are subject to greater scrutiny of the potential environmental and third party impacts on a case by case basis. To help better facilitate trade between zones, Tasmania will look at the need to develop exchange rates to address transmission losses and reductions in reliability.

Further system specific trading rules can be established through Water Management Plans. To date, no system specific rules (other than those prescribed in the Guiding Principles) have been applied adopted Water Management Plans.

The publicly available Water Information Management System (WIMS) registers all water licences and allocations, and any third party interests. The register also records permanent and temporary transfers of water licences and allocations. Tasmania is also working with other jurisdictions to ensure an adequate level of compatibility between jurisdictions' respective entitlement registers. Compatible entitlement registers will improve market information to support the expansion of a national water investment market.

Tasmania considers its institutional and regulatory arrangements are consistent with the principles in Schedule G of the Agreement. As the water trading market in Tasmania grows, DPIW is gaining experience in the assessment of complex trading arrangements. Work has recently commenced on determining exchange rates for water transfers and trades in the South Esk catchment. Exchange rates will be developed for other catchments on an as needed basis as the water trading market further develops.

Improving information on trades through the on-going refinement of a water trading register will support not only the water markets and trading outcomes but also the water accounting outcomes in the NWI.

The introduction of groundwater licensing in Tasmania has been discussed in detail under Action 1 "Water access entitlements". As groundwater licensing is introduced the process and procedures to enable the trading of groundwater to occur will need to be developed by DPIW. The development of such procedures will not be undertaken until relevant integrated surface and groundwater models have been developed and a groundwater licensing system is in place. These models are discussed in detail under Action 18 "Consolidated water accounts".

### *Irrigation schemes*

Five irrigation schemes/districts operate in Tasmania. Each scheme holds a bulk water licence under the *Water Management Act 1999*. However, users within the scheme are subject to the provisions of the *Irrigation Clauses Act 1973*. Each user is provided with an irrigation right (the entitlement to take water from the irrigation scheme) that is separated from land title and transferable within the irrigation district, subject to conditions imposed by the managing authority under its transfer rules. Rights can be temporarily leased or permanently transferred. Annual allocations under the rights can also be transferred within the district.

The current transfer rules cover the physical constraints of the scheme infrastructure and the protection of third parties and the environment (including water quality).

Amendments to the *Irrigation Clauses Act 1973* in 2004 allowed non-landholders or occupiers to hold irrigation rights.

There are no institutional barriers to transferring water outside of an irrigation district. Although an irrigation right *per se* cannot be transferred outside of a district<sup>1</sup>, a variation to the scheme's bulk water licence allows a transfer of a water entitlement to occur to another licence outside the scheme (subject to the aforementioned approval procedure and trading rules for unregulated systems).

### **Water registration system**

Tasmania's water licensing system is supported by the Water Information Management System (WIMS), a publicly accessible water licence register with details of all water licences and allocations including the details of any third party interest. (see <http://wims.dpiw.tas.gov.au>). More detailed water licence searches are undertaken by DPIW at a minimal cost.

Public accessibility to water trading information and the ability to enable water trading lodgements to be made on-line are two areas that Tasmania intends to review in detail. The recently developed WIST (Water Information System of Tasmania <http://water.dpiw.tas.gov.au/wist/>) could provide the interface for data from WIMS to be uploaded (through the Spinx spatial database) to enable the provision of water access entitlement information within a defined area.

In 2005 Tasmania commenced a project to review its water register system and determine potential linkages with land title registration procedures and protocols. The project has drawn on the work of the NWC's Compatible Registers Working Group and will be continued during 2006 to determine the cost effectiveness of implementing various land title registration procedures and protocols. Activities in relation to enhancements to Tasmania's water licence register under Action 1 also support the water trading requirements of paragraph 59 of the NWI Agreement.

The actions recommended by the Compatible Registers Working Group in its September 2005 report *Compatibility of Water Registers* have been incorporated into the Implementation Timetable provided below. The Compatible Registers Working Group identified three areas where further work is needed in Tasmania:

- Provision of summaries of water trading and entitlement information on-line.
- On-line lodgements of applications for registration of transactions.
- Separation of consent from registration.

The Compatible Registers Working Group also identified those areas where further work was required nationally to ensure compatibility of water registers. Tasmania will have input into the additional work through its representation on the NWC's Compatible Registers Working Group and will consider implementation of relevant actions applicable to Tasmania (as detailed in the Implementation Timetable below). A number of the findings in the *Compatibility of Water Registers* report are not

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<sup>1</sup> As under the *Irrigation Clauses Act 1973* an Irrigation Right only has legal standing within an Irrigation District.

applicable to Tasmania because of the physical constraints on being able to trade water access entitlements outside of the State<sup>2</sup>.

Both the findings of the Compatible Registers Working Group and the Tasmanian Water Titles Registration Project will be considered when Tasmania determines what cost effective changes of net public benefit will be implemented to support the requirements of paragraph 59 and Schedule F of the NWI Agreement.

### **Water trading studies**

A key element of the NWI is the development of robust and open water markets and trading. To support the implementation of actions on trading, the parties agreed under the NWI to complete studies as per paragraphs 61(i) to (iii) and 63(iv). Studies under paragraph 63(iv) relate to the Murray Darling Basin and are therefore not applicable to Tasmania. Studies to be undertaken include a review of water products; approaches to sharing delivery capacity and extraction rates among users; feasibility of establishing market mechanisms to provide incentives for investment in water-use efficiency and farm management strategies and for dealing with environmental externalities.

The Water Trading Working Group, coordinated by the Department of Prime Minister and Cabinet is currently leading the development of water trading studies. The outcomes of any water trading studies will be considered where the findings are applicable to Tasmania.

### **Implementation Timetable**

<b>Step/Deliverable</b> (Facilitating intra and interstate trade)	<b>Start date</b>	<b>End date</b>	<b>Lead Agency</b>
<b>Compatible Water Register System</b>			
Support for nationally driven work on compatible water registers: <ul style="list-style-type: none"> <li>• NWC Working Group to identify steps required to achieve compatible water register systems, giving regard to the requirements under IGA 60 and studies to be undertaken under IGA 61.</li> <li>• NRMCC NWI Working Group receives report from NWC on agreed steps to achieve consistency and considers necessity of further inter-jurisdictional collaboration.</li> <li>• Steps required to achieve compatibility in water register systems incorporated into jurisdictions' implementation plans.</li> </ul>		Complete  Complete  Complete	DPIW

<sup>2</sup> This does not preclude the transfer of water out of the State.

Support work on additional actions to be undertaken as recommended by the NWC's Compatible Registers Working Group <i>Compatibility of Water Registers</i> report that are relevant to Tasmania: <ul style="list-style-type: none"> <li>• Pricing and personal information disclosure</li> <li>• Common terminology</li> </ul>	Commenced Commenced	Completed Completed	
Investigation into register compatibility issues: <ul style="list-style-type: none"> <li>• Information made available on-line in relation to trading (eg a register for water trade information).</li> <li>• On-line lodgement of registration of transactions.</li> </ul>	2007 2007	Dec. 2007 Dec. 2007	
<b>Refinements to Tasmania's existing institutional and regulatory frameworks</b>			
Review existing institutional and regulatory arrangements to ensure they meet requirements of the NWI, in particular Schedule G.	Commenced	Sept. 2006	DPIW
Tasmanian Water Titles Registration Project <ul style="list-style-type: none"> <li>• Review the current water entitlement registration system, including meeting the requirements of the NWI, in particular Schedule F.</li> <li>• Implement the findings of the Review.</li> </ul>	Commenced Jan. 2007	Dec. 2006 Dec. 2007	
Development of exchange rates: <ul style="list-style-type: none"> <li>• South Esk catchment.</li> <li>• Other areas of the State (as needed).</li> </ul>	Commenced 2007	Sept. 2006 On-going	
Principles for groundwater trading developed.	2008	2009	
<b>Actions facilitated by the Commonwealth/State Water Trading Group</b>			
Institutional and regulatory frameworks to facilitate trade driven nationally: <ul style="list-style-type: none"> <li>• The Commonwealth/State Water Trading Group receive outputs of the water trading studies under IGA 61.</li> <li>• The Commonwealth/State Water Trading Group, in consultation with the NWI Working Group, to consider recommendations from the studies and develop a work plan of actions to facilitate compatible institutional and regulatory arrangements that facilitate trade.</li> <li>• NWI Working Group provides work plan to NRMCC.</li> <li>• Institutional and regulatory arrangements in place in all jurisdictions.</li> <li>• NRMCC, in consultation with the National Water Commission, to establish mechanism for review.</li> </ul>		Nov. 2005 March 2006 Oct. 2006 Dec. 2007 Sept. 2008	Australian Government through PM&C

Water trading studies under IGA 61 and their implementation <ul style="list-style-type: none"> <li>• Water Trading Working Group prepares draft report of studies under IGA 61(i) and 61(ii).</li> <li>• Water Trading Working Group prepares final report of studies under IGA 61(i) and 61(ii).</li> <li>• NRMCC NWI WG to receive outputs of the water trading studies and prepare appropriate actions in light of the recommendations.</li> <li>• Productivity Commission undertake studies under IGA 61(iii).</li> </ul>		Oct. 2005 Dec. 2005 Dec. 2005	
<b>Progress reports to NRMCC</b>			
NRMCC annual report to COAG in 2005/06 to include jurisdictions' progress towards implementing compatible water register systems.		Oct. 2006	DPIW
Removal of barriers to trade. (IGA 60(iv)).	Immediate	Dec. 2006	
Rationalisation of inefficient infrastructure or unsustainable irrigation supply schemes, including consideration of structural adjustment. (IGA 60(vi)).	On-going	On-going	
Manage the impacts of assets potentially stranded by trade out of serviced areas to ensure that support mechanisms used for this purpose, such as access and exit fees and retail tagging, do not become an institutional barrier to trade (IGA 62).	On-going	On-going	
NRMCC annual report to COAG in 2007/08 on actions taken to implement IGA 60(i),(ii) and (iii).		Oct. 2008	

### Cooperation with other jurisdictions

Tasmania will contribute to work at a national level to enhance water trading markets through its involvement in the NWC Compatible Registers Working Group.

### Link to outcomes in the NWI

The actions support the following outcomes stated in clauses 58 of the NWI IGA:

58. The States and Territories agree that their water market and trading arrangements will:
- i) facilitate the operation of efficient water markets and the opportunities for trading, within and between States and Territories, where water systems are physically shared or hydrologic connections and water supply considerations will permit water trading;
  - ii) minimise transaction costs on water trades, including through good information flows in the market and compatible entitlement, registry, regulatory and other arrangements across jurisdictions;
  - iii) enable the appropriate mix of water products to develop based on access entitlements which can be traded either in whole or in part, and either

temporarily or permanently, or through lease arrangements or other trading options that may evolve over time;

- iv) recognise and protect the needs of the environment; and
- v) provide appropriate protection of third-party interests.

### **Link to relevant performance indicators**

Await finalisation of performance indicators at the national level.

# Best Practice Water Pricing

## 9a. Water storage and delivery pricing (metropolitan and regional)

### Key action(s) and implementation dates

Key Actions (Water storage and delivery pricing: metropolitan and regional)	Date	IGA paragraph	Responsibility
Complete commitments under the 1994 COAG Water Reform Framework to bring into effect pricing policies for water storage and delivery in rural and urban systems.	End 2004	65	States
<u>Metropolitan</u> Continued movement towards upper bound pricing.	End 2008	66(i)	States
<u>Metropolitan</u> Development of pricing policies for recycled water and stormwater.	End 2006	66 (ii)	States
<u>Metropolitan</u> Review and development of pricing policies for trade wastes.	End 2006	66 (iii)	States
<u>Metropolitan</u> Development of national guidelines for water accounts.	End 2006	66 (iv)	States
<u>Regional</u> Full cost recovery for all rural surface and groundwater based systems: • continued movement towards <i>lower bound pricing</i> per NCC commitments.	On-going	66 (v)(a)	States
<u>Regional</u> Full cost recovery for all rural surface and groundwater based systems: • achievement of <i>upper bound pricing</i> for all rural systems, where practicable.	On-going	66 (v)(b)	States
<u>Regional</u> (Additional items not in schedule A) Subsidies to be reported publicly where full cost recovery for regional water systems unlikely to be achieved.	On-going	66(v)(c)	States
<u>Regional</u> (Additional items not in schedule A) Alternative management arrangements aimed at removing subsidy be considered.	On-going	66(v)(c)	States

## Context

In Tasmania, 28 local councils provide all urban retail water services, supplying treated and untreated water and wastewater services to their municipalities. In the metropolitan area three water authorities (Hobart Water, Cradle Coast Water and Esk Water) supply bulk water to 18 separate municipalities.

In accordance with the definitions provided under the NWI, Hobart Water is the only “metropolitan” water supplier in Tasmania. All other water and wastewater services have fewer than 50,000 connections and are therefore classified as “regional” water service providers.

The Implementation Timetable for “Water storage and delivery pricing (metropolitan and regional)” below reflects only those actions that are relevant to both bulk (“metropolitan”) and urban (“regional”) water providers in Tasmania. Water storage and delivery pricing for rural (irrigation) water providers is dealt with under “Water storage and delivery pricing (rural).”

Paragraph 66(i) of the NWI Agreement provides for the continued movement towards upper bound pricing by 2008 by metropolitan water providers. Bulk water providers in Tasmania will be encouraged to continue to drive towards upper bound pricing.

### **Bulk water providers (Metropolitan)**

Under the *Government Prices Oversight Act 1995*, the Government Prices Oversight Commission (GPOC) is required to investigate the pricing policies of bulk water authorities (Hobart Water, Esk Water and Cradle Coast Water) every three years. The first investigation was conducted in 2001, the second in 2004. The next investigation will occur in 2007. The *Government Prices Oversight Act 1995* will be amended shortly to require pricing investigations to be undertaken every five years.

GPOC recommends maximum prices (which can include maximum revenues) and the Minister Assisting the Premier on Local Government subsequently issues a determination for each bulk water authority setting out maximum prices or revenues for three years<sup>3</sup> after the Final Report is issued.

The past GPOC pricing investigations have found that the bulk water authorities are not charging monopoly rents and are achieving a positive rate of return on their assets, consistent with NCP and ARMCANZ Guidelines for full cost recovery, based on economic real rates of return and consumption-based pricing.

The three bulk water authorities are joint local government authorities - owned by councils that are also their customers. This structure provides a natural constraint on any behaviour that may lead to the authorities’ charging monopoly rents. As owners, the councils focus on seeking commercial returns on their funds invested in the business and as customers, there is a natural preference for lower prices for water consumers. Given this, any increase in total revenues, above those required to cover

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<sup>3</sup> The 2007 determination will set maximum prices or revenue for a five year period as will all subsequent determinations.

increased costs of operation of the authorities, would be entirely due to the desire of the owner councils to obtain higher returns from their water businesses. Local councils are able to control, within broad parameters, the pricing for water from the water storages through to homes and businesses in their municipalities. As well as local control, councils receive financial benefits from their ownership of the bulk water schemes in the form of tax equivalent and dividend payments made by the bulk water authorities.

### **Regional water and wastewater providers**

To facilitate appropriate pricing of urban water, urban water and wastewater pricing guidelines have been developed for local government. These guidelines are consistent with the COAG Water Reform Framework requirements and were developed by DPAC in consultation with GPOC. The guidelines titled *Urban Water and Wastewater Pricing Guidelines*, January 2003, (the Guidelines) were last revised in 2003.

In February 2005, GPOC delivered its fourth annual report on councils' compliance with NCP water reform obligations as they apply to urban water and wastewater services for the 2003-04 financial year (*Local Government Water and Wastewater Businesses, Full Cost Recovery Compliance Review, 2003-04 Report*). The 2005 audit of performance for the year ended 30 June 2004 found the same generally high levels of compliance by Tasmanian councils in both water and wastewater pricing.

Given the high level of compliance with the GPOC *Urban Water and Wastewater Pricing Guidelines*, and the fact that the audit requirements are quite costly for councils, GPOC considers it appropriate that biennial audits now be conducted. Biennial audits will allow councils the opportunity to reflect the audit outcomes in their annual rate determinations and, in the cases of non-compliance, will allow an effective transition period to ensure future compliance with the guidelines. GPOC will conduct its next audit in 2007 for the 2006-07 year, and thereafter in 2009 etc.

### **Cross –subsidies**

#### *Bulk water providers*

In regard to the bulk water authorities, all cross- subsidies must be made transparent in annual reports. To date, no cross-subsidies have been identified.

#### *Metropolitan and regional water providers*

The Terms of Reference for the 2005 Urban Water and Wastewater Audit required GPOC to investigate the use of cross-subsidies, the adequacy of reporting Community Service Obligations and councils' own use of water and wastewater services.

GPOC identified the use of cross-subsidies by those councils that reported rates of return outside the acceptable range. By definition, a cross subsidy occurs when the consumption by one user or group of users subsidises the consumption by another. Therefore, the water or wastewater service is *prima facie* subsidising other council activities if the relevant water or wastewater service obtains a rate of return higher

than the acceptable limits. Conversely if it is under performing, the water or wastewater service is being subsidised by the general rate base.

In 2003-04, GPOC found that four councils reported rates of return for water services outside the practical compliance limits, although in at least one of these cases it was identified that factors such as the period since the last revaluation of the Council's assets and not budgeting for the profit on sale of assets contributed to this. For wastewater services, five councils' rates of return were outside these limits. Of those wastewater services, GPOC noted that three councils would have been in practical or strict compliance if grants were removed from the calculations, another council was making significant progress towards compliance with the Guidelines, and a further council although not in actual compliance with the Guidelines had budgeted for a rate of return in practical compliance with the Guidelines.

Therefore, although GPOC has identified cross-subsidies within these councils, the report establishes that there are a number of factors influencing the councils' rates of return. This includes the small revenue base for water and wastewater services experienced by a number of councils. A small revenue base means that a small unexpected increase or decrease in actual revenue can have a significant effect on the councils' rate of return and hence compliance with the Guidelines. When these factors are taken into account the GPOC report demonstrates that councils are making significant progress towards eliminating cross-subsidies and ensuring ongoing compliance with the Guidelines.

In its report GPOC does not comment specifically on the identification and reporting of cross-subsidies between different users of water and wastewater services.

### **Pricing policies for recycled water, stormwater and trade waste**

Paragraph 66(ii) and (iii) of the NWI Agreement require the development of pricing policies for recycled water and stormwater and for trade wastes.

#### *Bulk water providers*

The bulk metropolitan water authorities do not have separate pricing policies for recycled water, stormwater or trade wastes as these do not currently form part of their business activities.

#### *Metropolitan and regional water providers*

Not all councils currently provide recycled water, stormwater and trade waste services. Of those councils (outside the metropolitan areas) that have water re-use schemes, the majority of pricing policies are based on negotiated agreements or contracts that reflect factors such as user investment, user testing, compliance requirements and other specific issues concerned with the individual scheme.

Within metropolitan councils, general pricing policies concentrate on full cost recovery and vary based on flow and other factors, such as whether customers provide on site storage and/or the length of contract.

In Tasmania, it is possible for local governments to enter agreements with waste dischargers to recoup additional costs of treating trade waste. The Launceston City Council has developed a trade waste charging policy comprising multiple tariffs based on volume and pollutant loads.

Trade waste services are not provided in all municipalities. Those non-metropolitan councils that do provide a trade waste service either have specific trade waste agreements with particular businesses or pricing policies based on specific formulae with regard to categories of waste, percentages of costs etc, or have no pricing policy in place at the moment.

The major metropolitan councils providing trade waste services have pricing structures in place, or have indicated that they are planning to introduce pricing structures within the trade waste service. These pricing structures are based on full cost recovery.

Clause 29 of the *State Policy on Water Quality Management 1997* deals with trade waste policies. The Policy states:

*Clause 29.1*

- 1. The operators of sewage or wastewater treatment plants which receive significant volumes of industrial wastes should have a trade waste policy to regulate the acceptance of wastes.*
- 2. Trade waste policies should be consistent with the Tasmanian Plumbing Regulations 1994 and the Guidelines for the Acceptance of Liquid Wastes to Sewer developed by the Institute of Municipal Engineering Australia (Tasmanian Division) and published by the Department of Environment and Land Management (1994), or any review of these guidelines endorsed by the Board.*

The trade waste guidelines cover issues such as pricing, system establishment, management of liquid waste from industry, disposal firms and the domestic sector as well as parameters for acceptance to sewerage.

DTAE is planning to update existing trade waste guidance document *Guidelines for Acceptance of Liquid Wastes to Sewer* to be consistent with national policy. The revised guidelines will also reflect recent changes in the *Tasmanian Plumbing Code 1994* and *Plumbing Regulations 2004*. Councils are also reviewing their trade waste policies to be consistent with State and national developments in this area. The review of the Guidelines will occur in 2008 once the review of *the State Policy on Water Quality Management 1997* has been completed.

## National guidelines for water accounts

The NRMCC NWI Working Group, in consultation with EPHC, has convened an Expert Group from metropolitan water providers to draft national guidelines for water accounts. Mr Barry Cash from Esk Water is Tasmania's representative on the Expert Group on the development of national guidelines for customer water accounts.

Once the national guidelines are in place, Tasmania will consider what cost-effective changes will be introduced to enhance customer water accounts in Tasmania. This will be facilitated through the Local Government Division in the Department of Premier and Cabinet.

## Implementation Timetable

<b>Step/Deliverable</b> (Water storage and delivery pricing: metropolitan and regional)	<b>Start date</b>	<b>End date</b>	<b>Lead Agency</b>
Fulfil commitments under the NCP regarding water storage and delivery pricing – report to NWC under 2005 NCP Assessment.	Completed	Completed	Treasury
Continued encouragement for movement towards upper bound pricing by bulk water authorities.	On-going	Dec. 2008	Treasury
<p>Pricing policies for water storage and delivery in rural and urban systems that facilitate efficient water use and trade in water entitlements, including consistency in pricing policies across sectors and jurisdictions where entitlements are to be traded in accordance with the requirements of IGA 65 (iii).</p> <ul style="list-style-type: none"> <li>• National Water Commission convenes a meeting with jurisdictions and regulators to develop a strategy to assess current approaches and facilitate consistency of pricing across jurisdictions.</li> <li>• NRMCC NWI Working Group provides comments on strategy.</li> <li>• Steps required to achieve consistency in pricing incorporated into jurisdictions' implementation plans – December 2005.</li> <li>• NRMCC NWI Working Group reports to NRMCC on jurisdictions' implementation of IGA 65(iii).</li> </ul>		<p>Aug. 2005</p> <p>Oct. 2005</p> <p>Dec. 2005</p> <p>April 2006</p>	Treasury & DPIW

Participate in the development of national guidelines for customer water accounts. <ul style="list-style-type: none"> <li>• NRMCC NWI Working Group in consultation with the EPHC, to prepare Terms of Reference and convene expert group.</li> <li>• Draft national guidelines prepared.</li> <li>• Draft national guidelines released by NRMSC for stakeholder comments.</li> <li>• NRMCC NWI Working Group seeks approval for national guidelines from NRMCC.</li> <li>• Promote the use of the guidelines by urban water providers.</li> </ul>	Commenced       Jan. 2007	Oct. 2006  Dec. 2005  March 2006 May 2006  Oct. 2006  Dec. 2007	DPAC
<b>Bulk water (metropolitan)</b>			
GPOC investigation of bulk water authorities every five years (next review 2007).	2007	On-going	Treasury
<b>Regional water</b>			
GPOC pricing review of urban water providers initiated (2007, 2009, 2011).	2007	Biennial	Treasury
Review of pricing policies for recycled water and stormwater.	Jan. 2007	Dec. 2007	Treasury (GPOC)
Review and development of pricing policies for trade waste.	Jan . 2008	Dec. 2008	DTAE
<b>Progress reports to NRMCC</b>			
Movement towards <i>upper bound pricing</i> for water storage and delivery in metropolitan areas. (IGA 66(i)).		Not applicable	Treasury
Development of pricing policies for recycled water and stormwater that are congruent with pricing policies for potable water and stimulate efficient water use. (IGA 66(ii)).		Dec. 2006	
Full cost recovery for all rural surface and groundwater based systems based on lower bound pricing as per NCP commitments, and upper bound pricing where practicable. (IGA 66(v)).		On-going	
Review and development of pricing policies for trade wastes to encourage cost-effective methods of treatment. (IGA 66(iii)).	Jan. 2007	Dec. 2007	DTAE

### Cooperation with other jurisdictions

Tasmania will work cooperatively at the national level to review water storage and delivery pricing. This includes representation on the Expert Group on customer water accounts and the Benchmarking Pricing and Service Delivery Working Group.

### **Link to outcomes in the NWI**

The actions support the following outcomes stated in clause 64 of the NWI IGA:

64. The Parties agree to implement water pricing and institutional arrangements which:

- i) promote economically efficient and sustainable use of:
  - a) water resources;
  - b) water infrastructure assets; and
  - c) government resources devoted to the management of water;
- ii) ensure sufficient revenue streams to allow efficient delivery of the required services;
- iv) give effect to the principles of user-pays and achieve pricing transparency in respect of water storage and delivery in irrigation systems and cost recovery for water planning and management;
- v) avoid perverse or unintended pricing outcomes; and

### **Link to relevant performance indicators**

Await finalisation of performance indicators at the national level.

# Best Practice Water Pricing

## 9b. Water storage and delivery pricing (rural)

### Key action(s) and implementation dates

Key Actions (Water storage and delivery pricing: rural)	Date	IGA paragraph	Responsibility
Complete commitments under the 1994 COAG Water Reform Framework to bring into effect pricing policies for water storage and delivery in rural and urban systems.	End 2004	65	States
Full cost recovery for all rural surface and groundwater based systems: continued movement towards <i>lower bound pricing</i> per NCC commitments.	On-going	66 (v)(a)	States
Full cost recovery for all rural surface and groundwater based systems: achievement of <i>upper bound pricing</i> for all rural systems, where practicable.	On-going	66 (v)(b)	States
Subsidies to be reported publicly where full cost recovery for rural and regional water systems unlikely to be achieved.	On-going	66(v)(c)	States
Alternative management arrangements aimed at removing subsidy be considered.	On-going	66(v)(c)	States

### Context

The vast majority of irrigation water in Tasmania is sourced from unregulated streams or on-farm storages utilising privately funded infrastructure. Less than 10 per cent of irrigation water is sourced from publicly-owned infrastructure through three irrigation schemes: Cressy-Longford Irrigation Scheme (CLIS), Winnaleah Irrigation Scheme (WIS) and South East Irrigation Scheme (SEIS). Ownership is vested in the Rivers and Water Supply Commission (RWSC) who operate as a Government Business Enterprise (GBE).

Management of both the CLIS and WIS has been devolved to local corporate entities who are required to operate the schemes on a commercial basis with water prices set to recover at least the lower limit of the COAG pricing benchmark.

The SEIS is currently managed by the RWSC. As a GBE, the RWSC is required to include the payment of tax equivalents and a loan guarantee fee in the determination of its costs for operating its trading enterprise. Water pricing is set through the business plan for the scheme, which forms part of the RWSC's Corporate Plan. The RWSC has adopted a two part (fixed and variable) pricing policy as it best reflects the operating costs for smaller irrigation schemes such as those operated by the

Commission. The SEIS has a price path in place to achieve full cost recovery by 2010-11, with the expectation that full cost recovery will be achieved much sooner.

It is not considered practicable to apply upper bound pricing to rural schemes in Tasmania. Currently the prices charged are at the upper limit of users' capacity to pay. The capacity to pay is limited by the profitability of agriculture, small rating base in the schemes and most significantly, the fact that irrigators within irrigation schemes are competing with irrigators outside irrigation schemes for cropping contracts and pricing structures need to be competitive. It is a requirement under the *Water Management Act 1999* that annual reports on the operation of rural schemes are submitted to the Minister for Primary Industries and Water. These reports will be the mechanism by which this issue is kept under review.

Paragraph 65(iii) of the Agreement requires there to be consistency in pricing policies across sectors and jurisdictions where entitlements are able to be traded. In Tasmania's case only inter-sectoral pricing policies need to be considered as the State's geographic location means that interstate trade is not possible. Recognising the requirement under IGA 77(ii) to publicly review and report on pricing in government and private water service providers, the National Water Commission, in consultation with the NRMCC NWI Working Group will in the first instance consult with jurisdictions and independent pricing regulators to develop a strategy to facilitate consistency in pricing policies across jurisdictions. The Tasmanian government will work with the NWC and NRMCC NWI Working Group as appropriate to develop consistent pricing policies and will consider the outcome of this work when it becomes available.

### Implementation Timetable

Step/Deliverable (Water storage and delivery pricing: rural)	Start date	End date	Lead Agency
<p>Pricing policies for water storage and delivery in rural and urban systems that facilitate efficient water use and trade in water entitlements, including consistency in pricing policies across sectors and jurisdictions where entitlements are to be traded in accordance with the requirements of IGA 65(iii).</p> <ul style="list-style-type: none"> <li>• NWC convenes a meeting with jurisdictions and regulators to develop a strategy to assess current approaches and facilitate consistency of pricing across jurisdictions.</li> <li>• NRMCC NWI Working Group provides comments on strategy.</li> <li>• Steps required to achieve consistency in pricing incorporated into jurisdictions' implementation plans.</li> <li>• NRMCC NWI Working Group reports to NRMCC on jurisdictions' implementation of IGA 65(iii).</li> </ul>		<p>Aug. 2005</p> <p>Oct. 2005</p> <p>Dec. 2005</p> <p>April 2006</p>	Treasury & DPIW

Fulfil commitments under the NCP regarding water storage and delivery pricing – report to NWC under 2005 NCP Assessment.	Completed	Completed	Treasury
Continued movement towards <i>lower bound pricing</i> as per NCC commitments.	On-going	On-going	DPIW
Review of annual reports by water entities to consider whether the achievement of <i>upper bound pricing</i> for rural systems is practicable.	On-going	On-going	
<b>Progress reports to NRMCC</b>			
Full cost recovery for all rural surface and groundwater based systems based on lower bound pricing as per NCP commitments, and upper bound pricing where practicable. (IGA 66(v))		On-going	DPIW

### **Cooperation with other jurisdictions**

Tasmania will work cooperatively at the national level to review water storage and delivery pricing. This includes representation on the Benchmarking Pricing and Service Delivery Working Group and NWI Steering Group for Water Charging.

### **Link to outcomes in the NWI**

The actions support the following outcomes stated in clause 64 of the NWI IGA:

64. The Parties agree to implement water pricing and institutional arrangements which:
- vi) promote economically efficient and sustainable use of:
    - a) water resources;
    - b) water infrastructure assets; and
    - c) government resources devoted to the management of water;
  - vii) ensure sufficient revenue streams to allow efficient delivery of the required services;
  - iv) give effect to the principles of user-pays and achieve pricing transparency in respect of water storage and delivery in irrigation systems and cost recovery for water planning and management;
  - v) avoid perverse or unintended pricing outcomes; and

### **Link to relevant performance indicators**

Await finalisation of performance indicators at the national level.

# Best Practice Water Pricing

## 10. Cost recovery for planning and management

### Key action(s) and implementation dates

Key Actions (Cost recovery for planning and management)	Date	IGA paragraph	Responsibility
Consistent approaches to pricing and attributing costs of water planning and management.	End 2006	67	States
Make annual public reports on cost recovery for water planning and management.	On-going	68	States

### Context

The *Water Management Regulations 1999* prescribe the water licence fees payable for water taken under the authority of a licence issued under the *Water Management Act 1999* (WMA). Since the introduction of the water licence fees in 2000, DPIW has undertaken two comprehensive reviews of the water licence fees. The same general principles that were used when the fees were first established in 1999 were used to revise the fees in 2003 and 2005. However the 2005 review broadened the costs to be recouped to cover the full costs incurred by DPIW for providing services that directly relate to the operation of the State's water licensing system, in accordance with the Department of Treasury and Finance Pricing Policy. As a result of significant increases in fees required following the 2005 review, the Government agreed to phase in the various fees over a period of up to five years to enable water users time to adjust to the new fees.

Water is a public resource that the Government allocates to users for both private and public benefits. The costs to be recouped through licence fees are the costs of providing the private benefits and the proposed method of recovery seeks to recoup the costs in a fair, transparent and equitable manner. Water licence fees recover fully the private good component of water management activities undertaken by DPIW. This includes activities such as advising on water rights and dams; issuing water licences and dam permits; maintaining a water licence register; regulating water users; and undertaking targeted stream gauging and water quality monitoring. The private good costs covered by the water licence fees include:

- Administrative costs incurred in maintaining the water licensing system.
- Regulatory costs including those activities undertaken by DPIW in regulating the taking of water.
- Water assessment costs including those activities undertaken by DPIW to monitor streamflows and water quality for river health monitoring both at permanent stations located around the State and through spot checks at critical times and locations. These activities are undertaken for both public and private good.

- Relevant DPIW overhead costs. Under the Tasmanian Government's Pricing Policy, fees must be set to recover the full costs of providing goods and services, including overhead costs.

The water licence fees are established to recoup costs based on the type of activity undertaken. Water licence fees consist of a fixed standard administrative fee and a variable field management fee. A fixed administrative fee enables all users to be charged the same fee for head office costs as these vary very little between different users. The field management fee is based on costs in each of the State's eight water management regions and also varies depending on the complexity of the field management activities required.

Such a fee structure provides a mechanism to ensure an appropriate level of service provision occurs across the State. Licensees also benefit from such a fee structure as the charges relate directly to the type of usage and are based on the particular regulatory and monitoring requirements of the water management region.

In order to ensure that fees and charges under the *Water Management Act 1999* continue to directly reflect the costs incurred by DPIW in managing water resources, DPIW will run the water fees model against the budgeted water management costs on an annual basis to ensure the costs are being recovered. The information for, and results of, these annual reviews will be made publicly available. Notwithstanding any annual changes to fees as per the above and the current five year implementation price path, DPIW will undertake a comprehensive review every three years of the structure and methodology of the fees.

Tasmania will work with the National Water Commission, in consultation with the NRMCC NWI Working Group, to facilitate the development of principles for inclusion of costs of water planning and management in water prices. Tasmania will then consider the outcome of this work when it becomes available.

### Implementation Timetable

Step/Deliverable (Cost recovery for planning and management)	Start date	End date	Lead Agency
Continued implementation of consistent approaches to pricing for planning and management: <ul style="list-style-type: none"> <li>• Review of fees prescribed in the <i>Water Management Regulations 1999</i> (minor review: annually, major review: 2008, 2011).</li> </ul>	On-going  On-going	On-going  On-going	DPIW
Support work undertaken by the NWC who in consultation with the NRMCC NWI Working Group, will facilitate development of principles for inclusion of costs of water planning and management in water prices. <ul style="list-style-type: none"> <li>• NWC, in consultation with NRMCC NWI Working Group, prepare Terms of Reference to develop principles.</li> <li>• Draft principles prepared.</li> </ul>	Commenced	Dec. 2005  April 2006 June 2006	DPIW

<ul style="list-style-type: none"> <li>• NRMCC NWI Working Group provides comment on draft principles.</li> <li>• NRMCC NWI Working Group seeks approval for national principles from NRMCC.</li> </ul>		Oct. 2006	
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### **Cooperation with other jurisdictions**

Tasmania will work cooperatively at the national level to facilitate the development of any nationally driven work on cost recovery for planning and management.

### **Link to outcomes in the NWI**

The actions support the following outcomes stated in clause 64 of the NWI IGA:

64. The Parties agree to implement water pricing and institutional arrangements which:
- i) promote economically efficient and sustainable use of:
    - a) water resources;
    - b) water infrastructure assets; and
    - c) government resources devoted to the management of water;
  - ii) ensure sufficient revenue streams to allow efficient delivery of the required services;
  - iv) give effect to the principles of user-pays and achieve pricing transparency in respect of water storage and delivery in irrigation systems and cost recovery for water planning and management;
  - v) avoid perverse or unintended pricing outcomes; and

### **Link to relevant performance indicators**

Await finalisation of performance indicators at the national level.

# Best Practice Water Pricing

## 11. Investment in new or refurbished infrastructure

### Key action(s) and implementation dates

Key Actions (Investment in new or refurbished infrastructure)	Date	IGA paragraph	Responsibility
Investment in new or refurbished water infrastructure to continue to be assessed as economically and ecologically sustainable before being approved.	On-going	69	States

### Context

The objectives established in both the Tasmanian Resource Management and Planning System and the *Water Management Act 1999* (WMA) provide a basis upon which sustainable use and economic development of the State's water resources may be facilitated.

Under the WMA, a statutory committee, the Assessment Committee for Dam Construction was established as the body responsible for assessing applications for the construction of dams. Part 8 of the Act details the Committee's constitution and operation as well as the assessment procedure to be followed.

The Assessment Committee has expertise in: water resource management; economic development of water; engineering and dam safety; integrated natural resource management and best practice environmental management. It has six members: two appointed by the Minister (one of whom will be chairperson); a person nominated by the Minister having the administration of the *Environmental Management and Pollution Control Act 1994* (EMPCA); a person nominated by the Tasmanian Farmers and Graziers Association; a person nominated by the Tasmanian Chamber of Commerce and Industry; and a person nominated by the Local Government Association of Tasmania.

In the consideration of dam permit applications, the Assessment Committee must seek to further the objectives of the WMA, act consistently with any relevant Water Management Plan and take into consideration a range of matters including threatened species, aboriginal heritage, fish passage, engineering and dam safety, hydrology and water quality.

The WMA provides that the Director of Environmental Management may call dam proposals in for assessment under EMPCA. This enables a fully comprehensive assessment of environmental issues related to larger and more complex dam proposals. On completion of such an assessment the Board of Environmental Management and Pollution Control may cause an Environment Protection Notice to

be issued containing environmental conditions. The WMA also provides for provision of information to the Assessment Committee for Dam Construction regarding any social or economic matter relating to the construction of a proposed dam.

Public investment in new or refurbished water infrastructure will be assessed not only under the provisions in the WMA for ecological sustainability but will also be reviewed by Treasury, and/or the Government Prices Oversight Commission (GPOC) to ensure investment is focussing on economically viable options, noting the requirements of paragraph 66(v) of the NWI Agreement.

### **Implementation Timetable**

<b>Step/Deliverable</b> (Investment in new or refurbished infrastructure)	<b>Start date</b>	<b>End date</b>	<b>Lead Agency</b>
Investment in new or refurbished water infrastructure to continue to be assessed as economically and ecologically sustainable before being approved.	On-going	On-going	DPIW
<b>Progress reports to NRMCC</b>			
Proposals to be assessed as economically viable and ecologically sustainable prior to investment. (IGA 69).	On-going	On-going	DPIW

### **Cooperation with other jurisdictions**

Nil.

### **Link to outcomes in the NWI**

The actions support the following outcomes stated in clause 64 of the NWI IGA:

64. The Parties agree to implement water pricing and institutional arrangements which:
- i) promote economically efficient and sustainable use of:
    - b) water infrastructure assets; and
  - iii) facilitate the efficient functioning of water markets, including inter-jurisdictional water markets, and in both rural and urban settings;
  - iv) give effect to the principles of user-pays and achieve pricing transparency in respect of water storage and delivery in irrigation systems and cost recovery for water planning and management;
  - v) avoid perverse or unintended pricing outcomes; and

### **Link to relevant performance indicators**

Await finalisation of performance indicators at the national level.

# Best Practice Water Pricing

## 12. Release of unallocated water

### Key action(s) and implementation dates

Key Actions (Release of unallocated water)	Date	IGA paragraph	Responsibility
Release of unallocated water.	On-going	70 - 72	States

### Context

The *Water Management Act 1999* (WMA) vests the rights to the taking of water from the water resources of Tasmania in the Crown for allocation in accordance with the provisions of the Act. Under the WMA, water access entitlements are granted to individuals, effectively providing them with an exclusive right to a proportion of a public resource.

To ensure that such grants are in the best interests of the broader Tasmanian community, the objectives of the WMA provide that the State's water resources must be allocated in a fair, orderly and efficient manner to provide optimum socio-economic and sustainable outcomes. Further, the water access entitlements allocated must be clear, consistent and readily enforceable.

Under the WMA, in areas where a Water Management Plan does not exist, the Minister may approve applications for new water allocations (including water taken into dams) only where that can be done in accordance with the objectives of the Act. The objectives of the Act are those set out in Tasmania's Resource Management and Planning System, which establish principles for sustainable development in the State, as well as the specific objectives of section 6 of the WMA. All proposals for new water allocations are assessed on the basis of the objectives and provisions of the Act.

As competition for limited water resources increases, the granting of new water allocations places pressure on existing rights and the health of Tasmania's rivers and estuaries. Best practice water management requires the striking of the correct balance between providing water allocations for socio-economic benefits and leaving sufficient water to protect the short term and long term health of the water resources.

The introduction of a moratorium in 1995 on the issue of new water entitlements during summer has protected the rights of existing users and the environment from over-allocation. As a result Tasmania does not have any over-allocated river systems.

Tasmania has also developed a number of policies to support decisions about water allocations:

- Since 1995 a moratorium on the issuing of new water licences and allocations from most of the State's rivers during the summer period has protected the State's

watercourses from over allocation during summer. Any further allocations during the summer period would generally be considered only in the context of a Water Management Plan or other processes under which formal environmental flow requirements are considered.

- *Guidelines to Assess Applications for New Water Allocations from Watercourses During Winter* (Water Resources Policy #2003/1) provide a clear, consistent and equitable approach for the granting of new winter water allocations while protecting the health of the State's rivers and estuaries and the rights of existing users. A review of this policy will be undertaken in 2009.
- The *Generic Principles for Water Management Planning* (Water Resources Policy #2005/1) provide guidance on how water management provisions relating to surface water allocation will be derived.
- The *Guiding Principles for Water Trading* (Water Resources Policy #2003/2) details issues to be considered in the approval of licence and water allocation transfers.

Ideally, any decision to release unallocated water would be made through a Water Management Plan. However, as the rate of Plan development cannot possibly keep up with the demand for new water allocations, interim arrangements have had to be instigated.

As noted above, there is a moratorium in place on the granting of new allocations for summer extraction. The moratorium continues to apply except where specific information is available to demonstrate that the granting of new allocations will not adversely impact on the environmental water needs or the entitlements of existing users. In most cases, this requires that new allocations are granted at a lower surety than existing entitlements.

There is a strong interest in obtaining new or additional water supplies for irrigation through the taking of winter streamflows into privately-owned storage for later use during summer. A conservative approach is taken to assessing applications for the granting of allocations as detailed in the DPIW *Guidelines to Assess Applications for New Water Allocations from Watercourses During Winter*.

In regard to charging for the release of unallocated water, the Government's policy is that in general, water is allocated on a first-come-first served basis without up-front charge (other than an application fee to cover the direct costs of dealing with the application). This policy reflects the Government's view that sustainable, private sector water development is to be encouraged as it leads to significant public good through the resulting socioeconomic benefits. It also reflects the fact that market based mechanisms such as tendering are not considered to be effective, taking into account the demand for new allocations and the low level of resource scarcity. Nevertheless, section 85(2) of the WMA does enable water allocations to be sold by public auction or tender to any person who holds a licence. To date no public auctions or tenders for water allocations have been held.

The exception to this general policy is in situations where the Government incurs specific costs related to the allocations, for example, in the River Derwent where the costs of additional streamflow monitoring activities are recouped from applicants for

new allocations. Another example is the Meander Dam development where the majority of the capital costs of dam construction are to be recouped through the sale of water entitlements from the dam.

These policies predominantly apply to surface water. Groundwater is currently not subject to licensing arrangements and the need for specific policies in relation to allocation of groundwater will be considered through the development of groundwater licensing in the State over the coming years<sup>4</sup>.

### Implementation Timetable

Step/Deliverable (Release of unallocated water)	Start date	End date	Lead Agency
Continued management in Tasmania of the release of unallocated water in line with the requirements of the NWI Agreement: <ul style="list-style-type: none"> <li>On going application of existing policies.</li> <li>Review of <i>Guidelines to assess applications for new water allocations from watercourses during winter</i>.</li> <li>Identification of options for release of unallocated water through water management planning.</li> </ul>	On-going  On-going 2009  On-going	On-going  On-going 2009  On-going	DPIW
<b>Progress reports to NRMCC</b>			
Releases should occur through market-based mechanisms and after alternative ways of meeting demands have been explored. (IGA 70-72).	On-going	On-going	DPIW

### Cooperation with other jurisdictions

Nil.

### Link to outcomes in the NWI

The actions support the following outcomes stated in clause 64 of the NWI IGA:

64. The Parties agree to implement water pricing and institutional arrangements which:
- i) promote economically efficient and sustainable use of:
    - a) water resources;
    - b) water infrastructure assets; and
    - c) government resources devoted to the management of water;
  - ii) ensure sufficient revenue streams to allow efficient delivery of the required services;

<sup>4</sup> Unless a Water Management Plan is implemented and/or a Groundwater Area has been proclaimed, groundwater may be taken under Part 5 of the WMA which enables occupiers of land to take groundwater from that land for any purpose.

- iii) facilitate the efficient functioning of water markets, including inter-jurisdictional water markets, and in both rural and urban settings;
- iv) give effect to the principles of user-pays and achieve pricing transparency in respect of water storage and delivery in irrigation systems and cost recovery for water planning and management;
- v) avoid perverse or unintended pricing outcomes; and
- vi) provide appropriate mechanisms for the release of unallocated water.

**Link to relevant performance indicators**

Await finalisation of performance indicators at the national level.

# Best Practice Water Pricing

## 13. Environmental externalities

### Key action(s) and implementation dates

Key Actions (Environmental externalities)	Date	IGA paragraph	Responsibility
Environmental externalities managed through a range of regulatory measures.	On-going	73	States

### Context

#### Regulatory measures

The *State Policy on Water Quality Management 1997* (SPWQM) is the primary regulatory mechanism dealing with environmental externalities. The SPWQM establishes a framework for the management of point and diffuse sources of pollution and well as a water quality management framework with the setting of environmental values and water quality objectives. A review of the SPWQM is planned during 2007; the review, however, is unlikely to broaden the scope of the SPWQM to deal with environmental externalities in an economic sense.

The Tasmanian Natural Resource Management (NRM) Framework is supported by the *Natural Resource Management Act 2002* and the establishment of three regional NRM committees (NRM North, Cradle Coast NRM and NRM South). Each of the NRM committees has developed a regional NRM strategy using a whole of catchment approach. The three NRM strategies provide the basis through which any legacy issues are dealt with through actions undertaken as part of regional investment programs.

The *Guiding Principles for Water Trading in Tasmania* (Water Resources Policy #2003/2) includes principles to ensure that the transfer of a licence and/or water allocation and the physical transfer of water should not directly result in adverse impacts on the water quality of the resource. This is of particular importance for physical transfers of water from storages via natural watercourses to downstream users. Such transfers will only be approved where the quality of the stored water is not expected to have adverse impacts on the watercourse.

The *Water Management Act 1999* (WMA) provides that an application for a water licence or a variation to a licence must contain such information as the Minister may require to support an application. This is also supported through provisions in the *Generic Principles for Water Management Planning* (Water Resources Policy #2005/1).

Among other things, Paragraph 73 of the NWI notes that the management of externalities through regulatory measures may include actions such as specifying the conditions for the use of water in water licences.

In this regard, Tasmania will review the adequacy of the provisions in its regulatory framework that prevent adverse off-site impacts of irrigation and other high water use activities. This is partly in response to public submissions made to the 2005 review of the WMA regarding the ability to regulate irrigation practices that may impact on water quality.

As part of implementing the findings of the review of the WMA, DPIW will consult with other jurisdictions regarding the relevant provisions of their regulatory frameworks and the manner in which they achieve control of water usage to prevent adverse impacts on the environment and other water users. This will also be supported by reviewing how well the provisions in the Little Swanport Catchment Water Management Plan dealing with the mitigation of potential adverse impacts of irrigation activities on water quality are working in practice.

This information will be used as a basis for determining the most effective and practical approach for achieving the appropriate level of mitigation of environmental externalities and impacts on third parties. The outcomes from this work will also be important for the consideration of such issues when the Department of Tourism, Arts and the Environment reviews the *State Policy on Water Quality Management 1997* in 2007.

### **Pricing measures**

In Tasmania pricing measures relating to environmental externalities are considered in the context of both urban and rural water pricing. At the national level, environmental externalities will be considered through the NWC's work on consistency in water charges.

#### *Urban water pricing*

In Tasmania, local governments provide all urban retail water services supplying treated and untreated water to their municipalities. Councils recover costs towards environmental externalities through their fee structure. As part of the water and wastewater pricing review undertaken by GPOC, councils are required to report on externalities as factored into their calculations for full cost recovery. Externalities are defined within DPAC's 2003 *Urban Water and Wastewater Pricing Guidelines*.

In Tasmania some councils also supply recycled water for irrigation. In such cases water users must prepare environmental management plans and the costs of such plans are borne by the water users.

#### *Rural water pricing*

Environmental externalities in the pricing regime for irrigation can be considered in two contexts: those charges that are passed on to irrigators sourcing water from publicly-owned infrastructure; and those charges incurred by irrigators who take water directly through an authorisation of a licence under the WMA. Water quality monitoring and resource management costs incurred by the Rivers and Water Supply

Commission are incorporated into the water and other operating costs charged to irrigators and include water quality monitoring, weed control and minor river works for their irrigation schemes.

The *Water Management Regulations 1999* prescribe the fees payable for water licences issued under the WMA. The fee structure is designed to recover DPIW's direct and indirect costs for managing and regulating the State's water licensing system. This includes the recovery of costs associated with water quality monitoring and assessment that is undertaken for private good purposes. The fees also recover the full cost of compliance activities undertaken by DPIW, which are required to ensure that water users comply with the conditions on their licence, including how much water is taken, when it is taken, and how it is taken. DPIW will undertake a comprehensive review every three years of the structure and methodology of the fees and a minor review of the fees will be undertaken annually. These reviews will include provision for recovery of any additional externality costs incurred by DPIW.

### Implementation Timetable

Step/Deliverable (Environmental externalities)	Start date	End date	Lead Agency
SPWQM review: <ul style="list-style-type: none"> <li>Review of the SPWQM undertaken</li> <li>Implement the findings of the SPWQM review.</li> </ul>	Jan. 2007 2008	Dec. 2007 Dec. 2008	DTAE
Continued implementation of consistent approaches to pricing and attributing costs of water planning and management: <ul style="list-style-type: none"> <li>Review of fees prescribed in the <i>Water Management Regulations 1999</i> (minor review: annually, major review: 2008, 2011).</li> </ul>	On-going  On-going	On-going  On-going	DPIW
GPOC pricing investigation of urban water providers initiated (2007, 2009, 2011).	On-going	On-going	Treasury
Provide input into the NWC's work on consistency in water charges.	Commenced	Dec. 2006	DPIW & Treasury
Productivity Commission undertakes studies of market based mechanisms to assist in managing environmental externalities, as required by IGA 61(iii).	Commenced	2006	Australian Government through PM&C
<b>Progress reports to NRMCC</b>			
Progress report provided in relation to how Tasmania manages externalities through a range of regulatory measures, examines the feasibility of using market based mechanisms and implements pricing that includes externalities where feasible. (IGA 73).	On-going	On-going	DPIW

### Cooperation with other jurisdictions

Tasmania will participate in the NWI Steering Group for Water Charging to review consistency in water charges that will include a review of externality charges.

### **Link to outcomes in the NWI**

The actions support the following outcomes stated in clause 64 of the NWI IGA:

64. The Parties agree to implement water pricing and institutional arrangements which:

- i) promote economically efficient and sustainable use of:
  - a) water resources;
  - b) water infrastructure assets; and
  - c) government resources devoted to the management of water;

### **Link to relevant performance indicators**

Await finalisation of performance indicators at the national level.

# Best Practice Water Pricing

## 14. Institutional reform – benchmarking efficient performance

### Key action(s) and implementation dates

Key Actions (Institutional reform – benchmarking efficient performance)	Date	IGA paragraph	Responsibility
Independent, public, annual reporting of performance benchmarking for all metropolitan, non-metropolitan and rural water delivery agencies.	On-going	75	States
Develop nationally consistent report framework.	2005	76	All Parties
Roles of water resource management, standard setting and regulatory enforcement, and service provision be separated institutionally.	On-going	74	All Parties

### Context

#### Nationally consistent reporting framework

In order to meet the requirements of paragraph 75 of the NWI Agreement, the National Water Commission, in consultation with the NWI Working Group, is currently facilitating the development of a national framework for benchmarking pricing and service quality for water delivery agencies, considering the benchmarking systems currently in use (eg Australian Water Services Association) and how these can be incorporated into the national framework. Treasury is participating in the Benchmarking Pricing and Service Delivery Working Group.

Once developed, applicable water service providers will participate in the NWI national benchmarking framework where it is cost effective to do so.

Paragraph 76 of the NWI Agreement provides that the costs of operating the performance and benchmarking systems are to be met by jurisdictions through recovery of water management costs. In Tasmania, the costs of benchmarking are currently met by the relevant water entities participating in the benchmarking and it would not be practical for the State Government to meet these costs and then recover them from water entities through water management costs, or any other means.

#### Metropolitan and Regional participation in benchmarking activities

In regard to the bulk water authorities, currently Hobart Water is the only water business in Tasmania that provides performance information to the Water Services Association of Australia (WSAA). This is because it is the only water business with over 50,000 connections. Esk Water and Cradle Coast Water have provided

information to the Australian Water Association (AWA), but it produced its last report in 2001.

In regard to rural irrigation water providers, three Tasmanian irrigation schemes (South East Irrigation Scheme, Winnaleah Irrigation Scheme and Cressy/Longford Irrigation Scheme) provide basic data for the Australian National Committee on Irrigation and Drainage (ANCID) benchmarking report.

#### *Bulk water providers*

As monopoly providers, the three bulk water authorities are currently required to be investigated every three years by GPOC<sup>5</sup>. In conducting its investigations, GPOC recommends the maximum allowable revenues and maximum volumetric prices for the future three years. The Final Report of the GPOC pricing investigation is a public document, and its draft report is released for public comment.

In regard to benchmarking, in its 2004 pricing investigation, GPOC stated in its Final Report that

“Although the Commission notes the interstate benchmarking information, the Commission considers it more reliable and meaningful to assess the comparative performance indicators between the three Tasmanian water authorities as noted in the 2001 Investigation:

The Commission is aware of the benchmarking information provided by the WSAA in its publication *The Australian Urban Water Industry*. Of the Tasmanian authorities, only Hobart Water is currently included in this publication. Esk Water and Cradle Coast Water are members of the AWA which also benchmarks water and sewage authorities. However, a direct comparison between the Tasmanian authorities and mainland water industries still remains difficult given the wide variation in the structure of the water supply industry around Australia.

Nevertheless, the Commission has considered these benchmarks in preparing this Report. Greater reliance has been given to comparison on the basis of appropriate benchmarking performance measures between the three Tasmanian authorities as they, unlike most mainland water authorities, are not responsible for the reticulation and distribution of water to individual consumers. In doing so, the Commission also acknowledges that there are differences in configuration of the schemes, age of assets etc that must be taken into account when undertaking any comparisons.

The Commission has considered each of the authority’s operating cost structures, trends over the period since the 2001 Investigation and undertaken comparative benchmarking of these costs.” (p.18-19)

Notwithstanding this, in its pricing investigations, Chapter 9 of the 2004 GPOC Final Report includes an overview of the bulk water authorities’ non-financial performance information. The three authorities provide information on a range of performance

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<sup>5</sup> The *Government Prices Oversight Act 1995* will be amended shortly to require pricing investigations to be undertaken every five years.

indicators to GPOC relating to water and service quality. The information requested is similar to that provided to the WSAA and/or the AWA.

It is not considered cost effective to undertake annual audits of pricing policies for the bulk water suppliers. However, the bulk water suppliers will provide performance information for water pricing and service quality in accordance with the national reporting framework once it is established.

In addition to this, the bulk water suppliers will continue to publicly report financial, water pricing, and water quality information in their Annual Reports.

#### *Metropolitan and regional water providers*

In regard to urban water and wastewater services, none of the councils is a member of the existing national performance and benchmarking systems due to the relatively small size of these businesses.

Notwithstanding this, under the *Local Government Act 1993*, each local council is required to provide key performance indicators to the Government annually to report performance on the objective of “*reliable provision of a continuous supply of safe drinking water, and equitable pricing*”. The 2005 Key Performance Indicator (KPI) Report which contains this information can be found at: <http://www.dpac.tas.gov.au/divisions/lgo/information/kpis.html>.

Since 2001, GPOC has undertaken annual audits of all urban water and wastewater services and reports on councils’ compliance with NCP water reform obligations. The audit is a public document and contains performance data on pricing considerations as well as water quality. The 2006 audit of performance for the year ended 30 June 2005 found the same generally high level of compliance by Tasmanian councils in both water and wastewater pricing.

Given the high level of previous compliance with the GPOC *Urban Water and Wastewater Pricing Guidelines*, and the fact that the audit requirements are quite costly for councils, GPOC considers it appropriate that biennial audits now be conducted. Biennial audits will allow councils the opportunity to reflect the audit outcomes in their annual rate determinations and, in the cases of non-compliance, will allow an effective transition period to ensure future compliance with the guidelines. GPOC will conduct its next audit in 2007 for the 2006-07 year, and biennially thereafter.

In regard to participating in the NWI National Benchmarking Framework that is currently being developed, Tasmania is concerned that the costs of participation for those councils with more than 10,000 connections may exceed the benefits. Therefore, once the framework is finalised and the costs of participation are documented, Tasmania will assess the impact of the framework on water businesses that are small by national standards and will ensure participation in the framework where it is cost effective to do so.

## **Rural**

The RWSC is participating in the national performance monitoring program for irrigation schemes developed by the Standing Committee on Agriculture and Resource Management and now being managed by the Australian National Committee on Irrigation and Drainage (ANCID). The three RWSC schemes were reported on in the first benchmarking report released by the Standing Committee in January 1999 (for the 1997-98 financial year) and have participated in all subsequent benchmarking reviews. Since self-management of the Winnaleah Irrigation Scheme and Cressy-Longford Irrigation Scheme commenced, the RWSC has no longer been responsible for the provisions of data from these two schemes.

Recent changes to the benchmarking system by ANCID mean that it is no longer cost-effective for small schemes, such as those in Tasmania, to participate in the business performance indicators component of the national benchmarking system. In recent years the three irrigation systems in Tasmania have provided only basic statistics for ANCID reporting (Tier 1).

In relation to participating in the NWI National Benchmarking Framework currently under development, Tasmania is concerned that the costs of participation by irrigation schemes who supply more than 4,000 megalitres may exceed the benefits. Therefore, once the framework is finalised and the costs of participation are documented, Tasmania will assess the impact of the framework on water businesses that are small by national standards and will ensure participation in the framework where it is cost effective to do so.

## **Institutional arrangements**

The commencement of the *Water Management Act 1999* on 1 January 2000 introduced a robust and effective legislative framework for the institutional reform of water management arrangements in the State in line with the requirements of the COAG Water Reform Framework. Tasmania has completed all its requirements for institutional reform as required under the NCP Agreement. Combined with the fact that no public submissions were received during the recent review of the *Water Management Act 1999* in relation to the current institutional arrangements, Tasmania has no plans to amend the current structure.

## Implementation Timetable

<b>Step/Deliverable</b> (Institutional reform – benchmarking efficient performance)	<b>Start date</b>	<b>End date</b>	<b>Lead Agency</b>
Independent, public, annual reporting of performance benchmarking for all <b>metropolitan</b> water delivery agencies: <ul style="list-style-type: none"> <li>• GPOC investigation of bulk water authorities every five years (next review 2007).</li> <li>• NWI Benchmarking framework.</li> </ul>	On-going  2007	On-going  On-going  Annual	Treasury
Independent, public, annual reporting of performance benchmarking for all <b>non-metropolitan</b> water delivery agencies: <ul style="list-style-type: none"> <li>• GPOC to undertake biennial audits of urban water and wastewater services to ensure full cost recovery.</li> <li>• Applicable urban water and wastewater services will participate in the NWI national benchmarking framework, <i>where it is cost effective to do so</i>.</li> <li>• Urban water and waster businesses report annually against Local Government Key Performance Indicators.</li> </ul>		Biennial (2007 & 2009) Annual  Annual	Treasury  Treasury  DPAC
Independent, public, annual reporting of performance benchmarking for all <b>rural</b> water delivery agencies <ul style="list-style-type: none"> <li>• Applicable rural water services will participate in the NWI national benchmarking framework.</li> </ul>		Annual	DPIW
Continuation of current institutional and regulatory arrangements.	On-going	On-going	DPIW
Develop nationally consistent report framework <ul style="list-style-type: none"> <li>• NWC, in consultation with NRMCC NWI WG, prepare Terms of Reference for consultancy to develop a draft national framework.</li> <li>• NWC manage consultancy to deliver final report.</li> <li>• NRMCC NWI Working Group provides comment on national framework.</li> <li>• NRMCC NWI Working Group seeks approval for a national framework from NRMCC.</li> </ul>		June 2005  Sept. 2005 Oct. 2005  April 2006	Treasury & DPIW
Roles of water resource management, standard setting and regulatory enforcement, and service provision be separated institutionally.	On-going	On-going	DPIW

## Cooperation with other jurisdictions

Tasmania will work cooperatively at the national level to develop a consistent benchmark system for efficient performance, this includes representation on the Benchmarking Pricing and Service Delivery Working Group.

## **Link to outcomes in the NWI**

The actions support the following outcomes stated in clause 64 of the NWI IGA:

64. The Parties agree to implement water pricing and institutional arrangements which:
  - i) promote economically efficient and sustainable use of:
    - a) water resources;
  - iii) facilitate the efficient functioning of water markets, including inter-jurisdictional water markets, and in both rural and urban settings;

## **Link to relevant performance indicators**

Await finalisation of performance indicators at the national level.

# Best Practice Water Pricing

## 15. Institutional reform – independent pricing regulator

### Key action(s) and implementation dates

Key Actions (Institutional reform – independent pricing regulator)	Date	IGA paragraph	Responsibility
Independent pricing bodies to set and review prices or pricing processes for water storage and delivery and publicly report.	On-going	77	All Parties

### Context

The Government Prices Oversight Commission (GPOC) was established on 1 January 1996 under the Tasmanian *Government Prices Oversight Act 1995*. GPOC is an independent body with responsibility for conducting investigations into the pricing policies and practices of certain Government Business Enterprises (GBEs), Government Agencies and Local Government Bodies that are monopoly, or near monopoly, suppliers of goods and services in Tasmania. GPOC has been set up consistent with National Competition Policy principles which require that a prices oversight advisory body should:

- address all significant GBEs which are monopoly suppliers of goods or services and be independent of the GBE being assessed;
- be focused on achieving efficient resource allocation, while having regard to any community service obligations imposed by the Government;
- permit submissions by interested persons; and
- publish its pricing recommendations and the reasons for them.

GPOC also investigates competitive neutrality complaints about Government bodies that compete with the private sector and conducts other inquiries as required by Government. For its previous bulk water pricing investigations and Urban Water and Wastewater Audits see [www.gpoc.tas.gov.au](http://www.gpoc.tas.gov.au).

### Implementation Timetable

Step/Deliverable (Institutional reform – independent pricing regulator)	Start date	End date	Lead Agency
Independent pricing bodies to set and review prices or pricing processes for water storage and delivery and publicly report.	On-going	On-going	GPOC

## **Cooperation with other jurisdictions**

Nil

## **Link to outcomes in the NWI**

The actions support the following outcomes stated in clause 64 of the NWI IGA:

64. The Parties agree to implement water pricing and institutional arrangements which:
- i) promote economically efficient and sustainable use of:
    - a) water resources;
    - b) water infrastructure assets; and
    - c) government resources devoted to the management of water;
  - iv) give effect to the principles of user-pays and achieve pricing transparency in respect of water storage and delivery in irrigation systems and cost recovery for water planning and management;
  - iv) avoid perverse or unintended pricing outcomes;

## **Link to relevant performance indicators**

Await finalisation of performance indicators at the national level.

# Integrated Management of Environmental Water

## 16. Integrated Management of Environmental Water

### Key action(s) and implementation dates

Key Actions (Integrated Management of Environmental Water)	Date	IGA paragraph	Responsibility
Recognising the different types of surface water and groundwater systems: <ul style="list-style-type: none"> <li>• effective and efficient management and institutional arrangements to ensure the achievement of the environmental outcomes.</li> </ul>	Immediate	79(i)	States
Recognising the different types of surface water and groundwater systems: <ul style="list-style-type: none"> <li>• where it is necessary to recover water to achieve environmental outcomes, to adopt the principles for determining the most effective and efficient mix of water recovery measures.</li> </ul>	On-going	79(ii)	States

### Context

#### Management and institutional arrangements

The *Water Management Act 1999* (WMA) vests the rights to water in the Crown to be administered in accordance with the Act. Under the WMA the Minister for Primary Industries and Water oversees the sustainable use and development of all freshwater resources in the State. The Water Resources Division in DPIW oversees the implementation of the WMA. DPIW in this sense can be considered as the “Water Resource Manager”.

Under the Act, water provisions for the environment and other public benefit outcomes can be provided for as an entitlement or through a rules based system. To date no water access entitlements have been allocated specifically for the environment. This is due to the fact that most Tasmanian river systems are run of river systems and water licence conditions are made in terms of minimum flow conditions or specific requirements for the passage of flood flows that provide for relevant environmental and other public benefit outcomes. The approach taken in Tasmania is to apply a rules based approach through water management planning or specific licence conditions.

The WMA provides for the development of Water Management Plans with clearly defined environmental and socioeconomic objectives, providing a more outcome-focussed approach to the development of a Plan. The environmental objectives not only set the standard for the ongoing protection of key environmental features of the

relevant water resources but also recognise important social and economic needs of the catchment community.

As the Water Resource Manager, DPIW undertakes a range of activities to ensure environmental and other public benefit outcomes are achieved, primarily through activities that will support water management planning and sustainable water resource development. Examples include:

- Conservation of Freshwater Ecosystem Values Project (CFEV) – a strategic Freshwater Management System for implementation through integration with Tasmania’s existing planning and regulatory instruments to conserve and manage the State’s freshwater ecosystem values.

The CFEV Project is currently developing the user-friendly interface for access to all the data and a comprehensive technical manual. It is intended that Tasmania’s water management decision-making bodies and NRM Committees will use CFEV’s Freshwater Management System to assist in the assessment of future water development proposals and to assist in focussing management efforts to protect and/or restore high conservation value ecosystems. CFEV is currently being supported further through a Regional NRM project relating to the conservation and protection of critical freshwater ecosystems through NRM planning.

CFEV will also provide the baseline information for determining the environmental objectives of a Water Management Plan. This may include the flow regime required to conserve important freshwater ecosystem values and flows required for geomorphic and ecological processes.

Funding as part of the Australian Government Water Fund Project: “Better information for better outcomes – enhancing water planning in Tasmania will support the development of the CFEV user interface and validation of the conservation management priorities in water management planning catchments by January 2007.

- Water for Ecosystems Policy (Water Resources Policy #2001/1) –a framework for the identification and provision of water for ecosystems both within and outside the context of a Water Management Plan. The policy has assisted in determining low flow requirements in 48 catchments. During 2006 the *Water for Ecosystems Policy* will be revised to better incorporate the concepts of an holistic approach to establishing environmental water provisions.
- Holistic environmental flows methodology – identifying the specific flow requirements of the various ecosystem components of a water resource. This methodology incorporates a “risk assessment” type framework and will build upon previous minimum environmental flow assessments carried out in over 40 Tasmanian catchments.

Phase 1 of the project has been completed and the draft framework will be tested and refined in selected catchments with different hydrologic characteristics over the next two years.

The *Water for Ecosystems Policy* will be revised during 2006 to take into account the suite of decision support tools that have been developed since the policy came into effect in 2001. The outcomes of the holistic environmental flow project will

provide protocols for formally assessing the water requirements of ephemeral streams, riparian and other flood dependent vegetation and estuaries, and the recently developed CFEV framework conservation management priorities that should be taken into account when allocating environmental water.

- Continued monitoring of river health and the status of Tasmanian rivers – which provides information that is the foundation for effective management of environmental outcomes. This will also be complemented with targeted monitoring projects to determine the effectiveness of environmental water allocations.
- Development of hydrological models. To date Tasmania has developed 15 surface water hydrological models, this work will be substantially expanded through the Australian Government Water Fund Project: “Better information for better outcomes – enhancing water planning in Tasmania”. This project will develop surface water hydrological models for a further 54 priority catchments as well as up to 20 integrated surface-groundwater models that will enable Tasmania to more effectively manage significantly interconnected surface-groundwater systems.

The mechanisms through which the audit, review and public reporting of the achievement of environmental and other public benefit outcomes include:

- Reporting of activities as part of existing Water Management Plans. Tasmania is currently considering how best to monitor/report on how well a Plan is achieving its objectives.
- Consideration of monitoring information and resource condition targets for the three Regional NRM Strategies.
- Tasmania’s State of the Environment reporting program (next report due late 2007/early 2008) which is undertaken by the Resource Planning and Development Commission (RPDC).

### **Water recovery**

Tasmania’s unregulated systems generally have sufficient flow to meet both environmental and user demands in most years (for example 8 years in 10). The introduction in 1995 of a moratorium on the issue of new water entitlements during summer has protected the rights of existing users and the environment from over-allocation. This means that there is normally scope to provide environmental and other public benefit outcomes without the need to undertake water recovery.

In unregulated river systems, the main mechanism for providing environmental water is to manage extractions through a rules based approach, rather than through abrogation or reduction of consumptive water entitlements. Where it is necessary to reduce the level of extraction to achieve environmental outcomes, rules restricting consumptive use at various levels of flow are determined. This is done through water management planning, by considering key environmental features of the relevant water system as well as social and economic needs of the catchment community.

## Implementation Timetable

Step/Deliverable (Integrated Management of Environmental Water)	Start date	End date	Lead Agency
Ongoing implementation of the CFEV Project: <ul style="list-style-type: none"> <li>• Completion of CFEV database.</li> <li>• Completion of CFEV technical report.</li> <li>• Development of CFEV users interface.</li> <li>• Validation of conservation management priorities in priority water management planning catchments.</li> </ul>	Commenced	On-going Completed Dec. 2006 Jan. 2007 Jan. 2007	DPIW
Monitoring and coordination of river health, streamflow and water quality data.	On-going	On-going	
Implementation of the holistic environmental flow methodology (supported by NAP/NRM): <ul style="list-style-type: none"> <li>• Draft framework.</li> <li>• Testing of methodology on Ringarooma and Macquarie catchments.</li> <li>• On-going testing in Little Swanport catchment.</li> <li>• Development of final framework.</li> </ul>	Commenced	Completed Dec. 2006  Dec. 2006 Dec. 2008	
Revise <i>Water for Ecosystems Policy</i>	Sept. 2006	March 2007	
Targeted monitoring: <ul style="list-style-type: none"> <li>• Great Forester wetlands water requirements study.</li> <li>• Scientific investigations into Ringarooma RAMSAR wetland.</li> <li>• <i>Astacopsis</i> habitat investigation.</li> </ul>	Commenced Commenced  Commenced	Oct. 2006 Oct. 2007  Oct. 2006	
Enhanced knowledge of surface-groundwater systems through the implementation of the “Better information for better results – enhancing water planning in Tasmania” Project (for more details see Action 18).	Commenced	Jan. 2008	
Reporting of activities as part of existing Water Management Plans. <ul style="list-style-type: none"> <li>• Annual interim monitoring and assessment report for the Great Forester Water Management Plan.</li> <li>• Development of an approach to monitor and audit the achievements of Plan objectives.</li> <li>• Reporting on the achievements of objectives for existing Plans.</li> </ul>	Annual  June 2006  Dec. 2006	Annual  June 2007  On-going	
State of the Environment reporting (next report due late 2007/early 2008).	On-going	On-going	RPDC
<b>Progress reports to NRMCC</b>			
Establish effective and efficient management and institutional arrangements to ensure the achievement of the environmental and other public benefit outcomes. (IGA 79(i)).		Jan 2005	DPIW

Where it is necessary to recover water to achieve environmental outcomes, adopt the principles in paragraph 79(ii) for determining the most effective and efficient mix of water recovery measures. (IGA 79(ii)).		On-going	DPIW
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### **Cooperation with other jurisdictions**

Nil

### **Link to outcomes in the NWI**

The actions support the following outcomes stated in clause 78 of the NWI IGA:

78. The Parties agree that the outcome for integrated management of environmental water is to identify within water resource planning frameworks the *environmental and other public benefit outcomes* sought for water systems and to develop and implement management practices and institutional arrangements that will achieve those outcomes by:

- v) identifying the desired *environmental and other public benefit outcomes* with as much specificity as possible;
- vi) establishing and equipping accountable *environmental water managers* with the necessary authority and resources to provide sufficient water at the right times and places to achieve the *environmental and other public benefit outcomes*, including across State/Territory boundaries where relevant; and
- vii) optimising the cost effectiveness of measures to provide water for these outcomes.

### **Link to relevant performance indicators**

Await finalisation of performance indicators at the national level.

# Water Resource Accounting

## 17. Benchmarking of accounting systems

### Key action(s) and implementation dates

Key Actions (Benchmarking of accounting systems)	Date	IGA paragraph	Responsibility
Benchmarking of accounting systems.	Mid 2005	81	All Parties

### Context

To date Tasmania has not developed any formal accounting standards to support the development of consolidated water resource accounts and does not have protocols for external reporting of data from the hydrological models. Nevertheless, Tasmania monitors and reports on a considerable number of water quality and quantity parameters for use in water management activities as well as for meeting responsibilities for reporting on Tasmania *Together*, Water Management Plans, the *State Policy on Water Quality Management 1997*, Waterways Monitoring reports and State of Environment reports.

A number of activities are being undertaken in Tasmania that with an appropriate framework in place will form the basis of a water account for the State. This includes:

- Development of surface and groundwater hydrological models.
- Baseline hydrological data collected from 54 stream gauging stations in the developed catchments in the State by DPIW and routine monitoring of groundwater resources by Mineral Resources Tasmania's aquifer baseline networks of around 30 bores.
- Hydro Tasmania's monitoring network.
- Tasmania's water licensing system: the Water Information Management System (WIMS).

The benchmarking of jurisdictional water accounting systems will be undertaken at the national level. The NRMCC NWI Working Group will benchmark jurisdictional water accounting systems, taking into account existing benchmark reports (IGA 81). The NRMCC NWI Working Group will then develop accounting system standards (IGA 82), drawing on the work of the jurisdictions, the Executive Steering Committee on Australian Water Resource Information (ESCAWRI), Murray-Darling Basin Commission, the Bureau of Rural Sciences and linking in with the National Land and Water Resources Audit Water Theme, and the Australian Bureau of Statistics, and incorporating principles for environmental water accounting (IGA 84).

## Implementation Timetable

<b>Step/Deliverable</b> (Benchmarking of accounting systems)	<b>Start date</b>	<b>End date</b>	<b>Lead Agency</b>
NRMMC NWI Working Group finalises project scope and timetable for benchmarking of accounting systems.		Completed	DPIW
National Water Commission hold accounting workshop.		Completed	
Stocktake and benchmark of accounting system.	Commenced	April 2006	
NRMMC NWI Working Group develops project scope and timetable for developing accounting system standards and process for delivery of standards.		May 2006	
NRMMC NWI Working Group considers draft accounting system/template.		June 2006	
NRMMC NWI Working Group seeks clearance of accounting system/template from NRMMC.		Oct. 2006	
Tasmania implements accounting system/template.	Sept. 2006	On-going	
NRMMC annual report to COAG in 2006/07 to include jurisdictions' actions to implement accounting system.		Oct. 2007	

### Cooperation with other jurisdictions

Tasmania will cooperate with other jurisdictions on this action where required through representation on the NRMMC NWI Working Group and through the Expert Advisory Panel on Water Accounting.

### Link to outcomes in the NWI

The actions support the following outcome stated in clause 80 of the NWI IGA:

80. The Parties agree that the outcome of water resource accounting is to ensure that adequate measurement, monitoring and reporting systems are in place in all jurisdictions, to support public and investor confidence in the amount of water being traded, extracted for consumptive use, and recovered and managed for *environmental and other public benefit outcomes*.

### Link to relevant performance indicators

Await finalisation of performance indicators at the national level.

# Water Resource Accounting

## 18. Consolidated water accounts

### Key action(s) and implementation dates

Key Actions (Consolidated water accounts)	Date	IGA paragraph	Responsibility
Develop and implement robust water accounting.	End 2006	82	All Parties
Identify situations where close interaction between surface and groundwater exist.	End 2005	83	All Parties
Implement systems to integrate the accounting of surface and groundwater.	End 2008	83	All Parties

### Context

Development of accounting system standards to cover surface and groundwater systems will be an outcome from Action 17 “Benchmarking of accounting systems”. Once the new accounting system standard is nationally endorsed, Tasmania will consider how best to apply the standard for its surface and groundwater systems.

Tasmania currently monitors and reports on a considerable number of water quality and quantity parameters for use in water management activities as well as for meeting responsibilities for reporting on Tasmania *Together*, Water Management Plans, the *State Policy on Water Quality Management 1997*, Waterways Monitoring reports and State of Environment reports.

### Enhanced surface-groundwater modelling

Tasmania’s capacity to understand the close interaction between surface and groundwater systems and capability to develop robust water accounts will be greatly enhanced with the commencement in 2006 of the Australian Government Water Fund Project: “Better information for better results – enhancing water planning in Tasmania”.

To date DPIW has developed 15 surface water hydrological models that allow the generation of streamflow data for 100 years and provide the ability to model streamflow under natural and current (with water abstraction) conditions. A further 54 priority catchments have been identified as requiring models to enable Tasmania to meet its NWI commitments. These models will be completed through the “Better information for better results – enhancing water planning in Tasmania” project.

At this stage, Tasmania does not intend to develop hydrological models for those areas where there is negligible allocation of water or in Tasmania’s World Heritage Area or in catchments where water is solely used for hydro electricity generation.

The project also provides for the development of surface-groundwater models for up to 20 selected catchments already under some level of stress due to water usage, or with potential to become stressed. Detailed knowledge of groundwater hydrology in these catchments is currently poor and the development of these models will provide essential planning information to support the development and implementation of groundwater management measures and to develop water accounts for Tasmania.

Both surface water and groundwater models are essential to enable a better understanding of the sustainable yields of surface and groundwater resources in Tasmanian catchments. This in turn will guide not only future water management planning decisions and enable more accurate measurement, monitoring and strategic management of Tasmania's water resources in accordance with the principles of the NWI.

### **Implementing water accounting in Tasmania**

Once a new accounting system has been developed (Action 17), Tasmania will develop a framework to implement the water accounting system standard in the State. It is anticipated that during 2007 and 2008, Tasmania will commence trialing the water accounting framework as improved data to support the accounts becomes available.

Enhancements to data to support water accounting will be an on-going and iterative process over the coming years as more information becomes available, for example:

- Incorporating externalities associated with large scale land use change through the integration of forest hydrology modelling components with new hydrological models where appropriate (refer to Action 7).
- On-going collection and enhancement of Tasmania's baseline hydrological data. This includes implementation of an Australian Government funded project to upload Mineral Resources Tasmania's baseline groundwater data into Hydstra.
- Enhancements to the Water Information Management System (WIMS) water licence register, including more detailed information on water trading (refer to Action 8).
- Enhancements to Tasmania's water meter database (refer to Action 21).

Hydro Tasmania collects extensive data in the State's 7 Hydro Electric Districts. DPIW will liaise with Hydro Tasmania regarding access to this data on an on-going basis to support the development of water accounts.

## Implementation Timetable

Step/Deliverable (Consolidated water accounts)	Start date	End date	Lead Agency	
<b>Develop and implement robust water accounting</b>				
Implement nationally endorsed accounting system standard resulting from Action 17.	Sept. 2006	On-going	DPIW	
Develop and trial a water accounting and reporting framework for Tasmania.	July 2006	Dec. 2008		
Implement water accounting framework.	Dec. 2008	On-going		
<b>Enhanced information to support water accounts</b>				
Implementation of the Australian Government Water Fund Project “Better information for better results – enhancing water planning in Tasmania”: <ul style="list-style-type: none"> <li>• Development of 27 surface water hydrological models.</li> <li>• Development of up to 20 groundwater models.</li> <li>• Groundwater field assessments and model upgrades and refinements completed.</li> <li>• Development of remaining 27 surface water hydrological models.</li> </ul>	Jan. 2006	 Jan. 2007  Jan. 2008 Nov. 2007  Jan. 2008	DPIW	
Enhancement of DPIW’s in-house expertise in integrating forest hydrology modelling components with water balance models (for more details see Action 7).	Sep. 2006	Jan. 2008		
Enhancement of baseline data <ul style="list-style-type: none"> <li>• Baseline groundwater data available up-loaded to Hydstra.</li> </ul>	Feb. 2006	On-going		
Enhancements to WIMS water licence register, including more detailed information on water trading and groundwater licensing (for more details see Actions 1 & 8).	Oct. 2006	Jan. 2008		
Enhancements to Tasmania’s water meter database (for more details see Action 21).	Commenced	July 2008		
<b>Progress reports to NRMCC</b>				
Identify situations where close interaction between surface and groundwater exist. (IGA 83).		Dec. 2005		DPIW
Implement systems to integrate the accounting of surface and groundwater (IGA 83).		Dec. 2008		

## Cooperation with other jurisdictions

Nil.

### **Link to outcomes in the NWI**

The actions support the following outcome stated in clause 80 of the NWI IGA:

80. The Parties agree that the outcome of water resource accounting is to ensure that adequate measurement, monitoring and reporting systems are in place in all jurisdictions, to support public and investor confidence in the amount of water being traded, extracted for consumptive use, and recovered and managed for *environmental and other public benefit outcomes*.

### **Link to relevant performance indicators**

Await finalisation of performance indicators at the national level.

# Water Resource Accounting

## 19. Environmental water accounting

### Key action(s) and implementation dates

Key Actions (Environmental water accounting)	Date	IGA paragraph	Responsibility
Develop an environmental water register and annual reporting arrangements.	Mid 2005	85	All Parties
Apply the environmental water register and annual reporting arrangements.	Mid 2006	85	All Parties

### Context

Development of accounting system standards to cover surface and groundwater systems will be an outcome from Action 17 “Benchmarking of accounting systems”. Once the new accounting system standard is nationally endorsed, Tasmania will consider how best to apply the standard for its environmental water accounting and reporting. It will, however, have limited application due to the way in which environmental water is accounted for in Tasmania.

### Statutory recognition of environmental water in Tasmania

As detailed in Action 2, statutory recognition of environmental water is as an entitlement or through a rules based system under the *Water Management Act 1999* (WMA). The Act provides for licensing and allocation of water and this may include the licensing of a specific allocation of water for the environment. To date, no specific environmental allocations have been registered as a water access entitlement.

The current approach taken in Tasmania for achieving environmental outcomes is to apply a rules based approach through water management planning or licensing rather than as a specific water access entitlement. This is due to the fact that most Tasmanian river systems are run of river systems and water licence conditions are made in terms of minimal flow conditions or specific requirements for passage of flood flows that provide for relevant environmental benefits.

Accounting for environmental water in unregulated rivers cannot be quantified as a specific volume. The amount available for the environment is affected by seasonal fluxes and the implementation of regimes through conditions on water licences that 'mimic' natural flow variation, rather than provide a constant baseflow. As such is it generally not practical for formal registration as an environmental allocation.

## Environmental water reporting framework

Although in Tasmania no environmental water is currently held as a water access entitlement, an appropriate framework will be put in place to enable the development of environmental water accounts if such entitlements are issued in future.

Tasmania will also participate in any further nationally led work on the registration of rules based environmental water.

The two main mechanisms for reporting on rules based environmental water in Tasmania are through DPIW's Annual Report which details actions undertaken to implement adopted Water Management Plans and through Hydro Tasmania's annual reporting arrangements to DPIW on compliance with its water licence conditions. Hydro Tasmania hold the largest licensed water allocation in Australia and implements environmental rules for releases from its storages and regulated rivers systems within the State's 7 Hydro Electric Districts. Tasmania will consider the development of a framework to ensure reporting on significant rules based environmental water is undertaken consistently with the requirements of the NWI Agreement, in particular paragraph 82(ii). This is supported by the Reporting actions in Action 22 of this document.

## Implementation Timetable

Step/Deliverable (Environmental water accounting)	Start date	End date	Lead Agency
<b>Guidelines for environmental water register system</b>			
NWC, in consultation with NRMCC NWI Working Group, develops Terms of Reference for development of guidelines for environmental water register system.		July 2005	DPIW
Draft guidelines developed.		Sept. 2005	
NWC seeks comment from NRMCC NWI Working Group on draft guidelines.		Oct. 2005	
NRMCC NWI Working Group seeks approval of guidelines from NRMCC.		April 2006	
<b>Environmental water register</b>			
Develop an environmental water register framework and annual reporting arrangements for Tasmania.	July 2006	Dec. 2006	DPIW
Apply environmental water register where necessary.	Jan. 2007	As required	
<b>Progress reports to NRMCC</b>			
Application of the environmental water register and annual reporting arrangements.		June 2006	DPIW

## Cooperation with other jurisdictions

Tasmania, as a participant in the NRMCC NWI Working Group and through the Compatible Registers Working Group and Expert Advisory Panel on Water Accounting will contribute to the nationally driven work on an environmental water register system as well as environmental water accounting.

### **Link to outcomes in the NWI**

The actions support the following outcome stated in clause 80 of the NWI IGA:

80. The Parties agree that the outcome of water resource accounting is to ensure that adequate measurement, monitoring and reporting systems are in place in all jurisdictions, to support public and investor confidence in the amount of water being traded, extracted for consumptive use, and recovered and managed for *environmental and other public benefit outcomes*.

### **Link to relevant performance indicators**

Await finalisation of performance indicators at the national level.

# Water Resource Accounting

## 20. Information

### Key action(s) and implementation dates

Key Actions (Information)	Date	IGA paragraph	Responsibility
Implement information measures.	On-going	86	All Parties

### Context

#### Data collection and management systems

All streamflow, water quality and riverine health data collected by DPIW is subject to rigorous quality control and quality assurance protocols both for field data collection and assessment and uploading onto the States streamflow and water quality database (Hydstra).

DPIW is firmly committed to providing catchment communities and other interested parties with simple and timely access to streamflow, water quality and river health information. Water related data have been provided through the web through a number of mechanisms:

- DPIW's web site that provides general information on a range of water related issues. <http://www.dpiw.tas.gov.au/water>
- All water licensing and allocation information including water transfer details is recorded on the Water Information Management System (WIMS) database. WIMS sits on an oracle platform and has a web interface attached to it. The web interface provides to the public water allocation information for rivers and streams in Tasmania. Over the next 12 months it is proposed to review the web interface as part of the ongoing enhancements to the State's Water Information System of Tasmania (WIST) project. <http://wims.dpiw.tas.gov.au>
- Water Information System of Tasmania (WIST) currently provides real-time and historic stream gauging and water quality data including data summaries and reports for individual flow/sampling sites: <http://water.dpiw.tas.gov.au/wist>.

DPIW is currently working towards improving access to water related data for all stakeholders. In November 2005 the WIST website came into operation providing a single point of access for the effective delivery of Water Resources, Environment and Inland Fisheries Services water data and documents.

WIST will significantly improve the standard of access to Government water related data for organisations and the general public. The type of data that WIST will display includes: water flow records, water quality data including pesticide sampling results, water licence and farm dam information, Conservation of Freshwater Ecosystem

Values data, macroinvertebrates and fish sampling records, water resources published documents and annual waterway monitoring reports.

Through an Australian Government funded project (through the Bureau of Resource Sciences), data from Mineral Resources Tasmania's baseline groundwater database has recently been up-loaded into Hydstra.

### **Partnerships in data collection and storage**

Through the Tasmanian Surface Water Quality Monitoring Strategy (SWQMS) it is the role of the State Government to coordinate water quality monitoring and reporting programs, develop and maintain a centralised database, and form strategic partnerships with a variety of community stakeholders.

One of the key actions that DPIW has undertaken to implement the SWQMS is the implementation of Partnership Agreements with local governments to share water quality information and integrate water monitoring activities. Currently formed arrangements are in place with Break O'Day Council, Meander Valley Council, Central Highlands Council, Latrobe Council and Kentish Council.

Through the Partnership Agreements, both DPIW and the relevant Councils audit their water quality monitoring activities and associated data to identify opportunities for integrated water quality monitoring and data sharing.

DPIW is also working towards the development of Partnership Agreements with industry groups such as Hydro Tasmania, to enable the sharing and reporting of streamflow, water quality and river health information. Currently an agreement with Tas Alkaloids regarding linkages with their water quality, streamflow and riverine health data is being finalised.

### **Best practice in data management**

As a member of the Executive Steering Committee for Australian Water Resource Information (ESCAWRI), Tasmania is part of a national steering committee and working group for an Australian Water Resource Information system. This is being coordinated by the Bureau of Resource Sciences and involves the development of a national website for the provision of hydrometric data. The aim is to have a working prototype of the hydrometric database developed by mid 2006.

Tasmania is also committed to best practice in data management through its participation in the Hydsis/Kisters Users Group and the River Health Assessment Technical and Professional Advisory Committee (RHATPAC).

ESCAWRI will also keep a watching brief on this action, and will report to NWI Working Group on progress in relation to work under IGA 82 and 84.

## Implementation Timetable

Step/Deliverable (Information)	Start date	End date	Lead Agency
Implement any national agreed measures to improve collection, storage and sharing of data on water traded, extracted and recovered and managed for environmental and other public benefit outcomes.	On-going	On-going	DPIW
NRMMC NWI Working Group requests ESCAWRI to take action under this item (Tasmania is an active participant in the inter-jurisdictional NRMMC NWI Working Group and ESCAWRI).		March 2006	
NRMMC NWI Working Group, working with ESCAWRI, describes project scope and timetable.		June 2006	
NRMMC NWI Working Group receives initial report.		Sept. 2006	
Ongoing implementation in jurisdictions and report annually through NRMMC report to COAG.		On-going	
Report progress to NWC as part of the 2006/07 biennial assessment.		Oct. 2007	
Maintain national standards and consistency through participation in Hydisis/Kisters Users Group and the River Health Assessment Technical and Professional Advisory Committee.	On-going	On-going	

## Cooperation with other jurisdictions

Tasmania will provide input into nationally driven work through its participation in ESCAWRI and the NRMMC NWI Working Group.

## Link to outcomes in the NWI

The actions support the following outcome stated in clause 80 of the NWI IGA:

80. The Parties agree that the outcome of water resource accounting is to ensure that adequate measurement, monitoring and reporting systems are in place in all jurisdictions, to support public and investor confidence in the amount of water being traded, extracted for consumptive use, and recovered and managed for *environmental and other public benefit outcomes*.

## Link to relevant performance indicators

Await finalisation of performance indicators at the national level.

# Water Resource Accounting

## 21. Metering and measuring

### Key action(s) and implementation dates

Key Actions (Metering and measuring)	Date	IGA paragraph	Responsibility
Develop metering and measuring actions.	End 2006	88	All Parties
Implement metering and measuring actions.	End 2007	88	All Parties

### Context

The *Water Management Act 1999* provides that the Minister may require the installation of a meter by any person taking water from a water resource in the State.

Until 2003, installation of water meters by water licensees had only been required in specific cases where there were ongoing and localised water management difficulties or where strict accountability for licence compliance was required for the issue of a new licence in an intensively used water resource.

In 2003, DPIW commenced a five year program to extend water metering more broadly. The program aims to progressively require the installation of water meters for commercial taking of surface water for direct use, for all catchments where water usage is intensive (ie. subject to significant competing interests, including the interests of the aquatic environment). To date about 500 water meters measuring diversions from rivers and streams in Tasmania have been installed, primarily located in the Great Forester, Clyde, Meander, Macquarie, Flowerdale, Inglis and Elizabeth River catchments. Many of these meters have been installed over the last 1 to 2 years.

By the end of 2008 it is proposed to have meters installed on all commercial direct-take water extractions in catchments where intensive water usage occurs.

In general, the water metering program is being implemented as part of Water Management Plans, the Water Use Sustainability Project and other specific projects for formalising water use (eg granting of new water allocations in the lower Derwent River and allocations formalised in the South Esk Basin through the Memorandum of Understanding between DPIW, Hydro Tasmania and Tasmanian Farmers and Graziers Association).

A further program, which is ongoing, is to meter commercial water extractions from all new farm dams. In general, licences permit the taking of water into storage only during the “winter period”, nominally May to October. This ongoing storage metering program is being undertaken as a compliance check to ensure that no more water is taken from storages for use over the summer irrigation season than is legitimately permitted to be taken into storage over the winter period.

Water meters are required on all new water allocation takes. In addition, Water Management Plans developed to date all have a requirement to have water meters installed on all existing and future water allocation takes.

Outside the above programs, metering may be required in specific cases as a condition of water transfers, where there are ongoing and localised water management difficulties or where strict accountability for licence compliance is required for the issue of a new licence in an intensively used water resource.

Water meters are required to be installed in accordance with DPIW's *Water Meter Standard* that sets out the technical specifications including accuracy limits, installation requirements, and reporting requirements for water meters.

Water meter information is currently recorded both on paper and electronically. Public availability of water usage information is currently being addressed as part of the assessment program to review water meter recording and storage of information. DPIW is currently assessing how information is being recorded and stored and will be looking at ways to streamline this as well as making information more readily available.

Tasmania intends to develop a protocol for meter data collection and a framework for installing meters to assist enforcement and compliance of water licence conditions.

Other work currently being undertaken includes an audit of the location of existing meters and enhancements to DPIW's water meter database to incorporate metering data into Time Studio.

At the national level, work has commenced on a national standard by the National Measurement Institute for NWI M 10-1 (Meters intended for metering of irrigation water). A Metering Expert Group has been established to work collaboratively with the National Measurement Institute to develop the standards required under paragraph 88 of the NWI Agreement.

### Implementation Timetable

Step/Deliverable (Metering and measuring)	Start date	End date	Lead Agency
<b>Development of metering and measuring actions</b>			
NRMMC NWI Working Group develops project scope and timetable and establishes metering working group to develop meter standards and specification to meet requirements of IGA 88 (Tasmania is an active participant in the inter-jurisdictional NRMMC NWI Working Group).		June 2005	DPIW
NRMMC NWI Working Group finalises standards.		Dec. 2006	
NRMMC NWI Working Group seeks approval from NRMMC.		April 2007	

<b>Implementation of metering and measuring actions</b>			
Audit of existing meter locations.	Commenced	Dec. 2006	DPIW
Development of a protocol in relation to collection of metering data.	Commenced	July 2007	
Water meter database enhancement.	Commenced	July 2007	
Tasmania implements metering standards.	Dec. 2007	July 2008	
<b>Progress reports to NRMCC</b>			
Implement national metering and measuring actions. (IGA 88).		Dec. 2007	DPIW
NRMCC annual report to COAG in 2007/08 to include jurisdictions' actions to implement metering standards.		Oct. 2008	

### **Cooperation with other jurisdictions**

Tasmania will contribute to any nationally driven work in relation to the development of meter standards through the Metering Expert Group.

### **Link to outcomes in the NWI**

The actions support the following outcome stated in clause 80 of the NWI IGA:

80. The Parties agree that the outcome of water resource accounting is to ensure that adequate measurement, monitoring and reporting systems are in place in all jurisdictions, to support public and investor confidence in the amount of water being traded, extracted for consumptive use, and recovered and managed for *environmental and other public benefit outcomes*.

### **Link to relevant performance indicators**

Await finalisation of performance indicators at the national level.

# Water Resource Accounting

## 22. Reporting

### Key action(s) and implementation dates

Key Actions (Reporting)	Date	IGA paragraph	Responsibility
Develop national guidelines on water reporting.	Mid 2005	89	All Parties
Apply national guidelines on water reporting.	End 2007	89	All Parties

### Context

National guidelines on water reporting will be developed through the NRMCC NWI Working Group. Until national guidelines are developed Tasmania will continue with its current strategy for reporting on water management in the State. Currently there are reporting responsibilities through Tasmania *Together*, Water Management Plans, Waterways Monitoring reports, State of the Environment Reports, DPIW's Annual Report and Corporate Plan performance measures and through the Water Information System of Tasmania (WIST).

National guidelines will cover the application, scale, detail and frequency for open reporting addressing: metered water use and associated compliance and enforcement actions; trade outcomes; environmental water releases and management actions; and availability of water access entitlements against the rules for availability and use as per the requirements of paragraph 89 of the Agreement.

### Implementation Timetable

Step/Deliverable (Reporting)	Start date	End date	Lead Agency
<b>National guidelines on water reporting</b>			
NRMCC NWI Working Group finalises project scope and Terms of Reference and process for delivery of guidelines (Tasmania is an active participant in the inter-jurisdictional NRMCC NWI Working Group).		August 2005	DPIW
NRMCC NWI Working Group finalises draft national guidelines.		February 2006	
NRMCC NWI Working Group seeks approval of national guidelines from NRMCC.		April 2006	
Tasmania commences actions to implement reporting arrangements in line with national guidelines and reports annually (in association with reporting requirements under IGA 82(ii)).	July 2006		

National guidelines applied on water reporting: <ul style="list-style-type: none"> <li>• metered water use,</li> <li>• compliance and enforcement actions,</li> <li>• trading,</li> <li>• environmental water releases and management actions, and</li> <li>• availability of water access entitlements against the rules for availability and use.</li> </ul>		End 2007	DPIW
<b>Progress reports to NRMCC</b>			
Apply national guidelines on water reporting. (IGA 89).		Dec. 2007	DPIW
NRMCC annual report to COAG for 2006/07 to include jurisdictions' actions to implement reporting arrangements.		Oct. 2007	NRMCC

### **Cooperation with other jurisdictions**

Tasmania will work cooperatively with other jurisdictions to develop national guidelines.

### **Link to outcomes in the NWI**

The actions support the following outcome stated in clause 80 of the NWI IGA:

80. The Parties agree that the outcome of water resource accounting is to ensure that adequate measurement, monitoring and reporting systems are in place in all jurisdictions, to support public and investor confidence in the amount of water being traded, extracted for consumptive use, and recovered and managed for *environmental and other public benefit outcomes*.

### **Link to relevant performance indicators**

Await finalisation of performance indicators at the national level.

# Urban Water Reform

## 23. Demand Management

### Key action(s) and implementation dates

Key Actions (Demand Management)	Date	IGA paragraph	Responsibility
Implementation and compliance monitoring of WELS, including mandatory labelling and minimum standards for agreed appliances.	end 2005	91(i)	States
Develop and implement 'Smart Water Mark' for garden activities.	end 2006	91 (ii)	States
Review effectiveness of temporary water restrictions and associated public education strategies, and consider extending low level restrictions to standard practice.	end 2006	91 (iii)	States
Implement management responses to water supply and discharge system losses including leakage, excess pressure, overflows and other maintenance needs.	end 2006	91 (iv)	States

### Context

Although Tasmania is generally not under the same pressure for water resources as other jurisdictions, urban water usage, shortages in some catchments, summer restrictions and the potential effects of future climate change remain important issues. The Tasmanian Government fully supports initiatives to reduce excessive water usage and to better manage water resources, and demand management is one of those measures.

Local councils in Tasmania are responsible for water reticulation, treatment, sewage collection and treatment, stormwater, water infrastructure and related catchment management issues. This large scope creates a number of challenges for the limited resources and expertise available to some councils.

Twenty eight<sup>6</sup> councils supply treated and untreated water to their municipalities and own and operate the majority of water treatment and supply schemes. In the metropolitan area this is performed under the corporate bodies of three water authorities (Hobart Water, Esk Water and Cradle Coast Water) who supply bulk water to 18 separate municipalities. In total there are 90 water supply schemes in Tasmania.

The conversion of council water rights previously established under the *Local Government Act 1993*, to water access entitlements under the *Water Management Act*

<sup>6</sup> Only one council, Tasman Council, does not undertake any commercial water and wastewater treatment activities.

1999 has for the first time given councils a volumetric entitlement. As with other water access entitlements, allocations have been made at various levels of surety. Water access entitlements for town water supply have been allocated at surety 1 (2/3<sup>rd</sup> of the converted allocation) and surety 5 (1/3<sup>rd</sup> of the converted allocation). Access to the surety 5 allocation is restricted when streamflows are insufficient to meet the needs of higher surety users (including the environment).

The implementation of metering and two-part pricing for urban water schemes, where cost-effective, in accordance with the COAG 1994 water reform framework has also driven efficiencies in usage and demand management across the State.

Local government in Tasmania continues to provide educational and public awareness material in relation to the provision of water services. In addition to printed promotional material many Councils also maintain water conservation related information on their websites. The three bulk water authorities also undertake educational activities in relation to their responsibilities.

Efficient water usage is also addressed through the *Tasmanian Plumbing Code 1994* established through the *Local Government (Building and Miscellaneous Provisions) Act 1993*. The Code has been drafted as a performance based code for the design and construction of plumbing and drainage installation in Tasmania.

The Local Government Division in DPAC continues to support water reform by councils. DPAC's website consolidates information relating to urban water pricing principles and the objectives of water reform as they relate to councils. DPAC runs the Key Performance Indicator (KPI) reporting system for councils on an annual basis. KPI reporting provides the mechanism through which a range of policy, resource and service delivery areas can be reviewed, including infrastructure issues such as the reliable provision of a continuous supply safe of drinking water and equitable pricing. Demand management is covered through KPIs on water restrictions, system breaks, system losses and consumption.

The NWC will fund a review of water restriction practices across Australia. Tasmania will work cooperatively with the NWC in progressing this review as necessary.

### **Living Environment Program**

Through a recent Tasmanian Government initiative, the Living Environment Program, various programs are under development aimed at improving efficiency in both residential and commercial water usage. Large commercial and industrial water users will be targeted for education and assessment of water use practices with the aim of increasing efficiency. Residential water use will be addressed through a Water Sensitive Urban Design program.

### **Water Efficiency Labelling and Standards (WELS) Scheme**

The Tasmanian Parliament passed legislation (*Water Efficiency Labelling and Standards Act 2005*), to complement the national WELS scheme legislation. This Act was proclaimed on 15 February 2005. The Commonwealth will lead the development and implementation of the WELS scheme, including education, awareness and

enforcement, as well as a communications and marketing strategy. Tasmania is represented on the National WELS Steering Committee and coordinates local feedback and input into standards and new product inclusions.

### Smart Water Mark

The ‘Smart Approved Water Mark’ is the nationally endorsed water conservation labelling scheme recognising products, services and organisations assisting all Australians to save water. The Scheme seeks to accredit water-efficient garden products, water-efficient organisations, and other water users. The Smart Approved Water Mark Scheme compliments the WELS scheme.

The EPHC will establish a working group to consider the status of the Smart Approved Water Mark (SAWM) scheme and develop options for ongoing engagement to support effective implementation.

Any national promotion of the Scheme will be pursued by Water Services Association of Australia (WSAA), Irrigation Association of Australia (IAA) or the Nursery and Garden Industry Association. It is understood that an Australian Government Water Fund application has been lodged by these industry associations for the purpose of promoting the Smart Approved Water Mark Scheme.

The Tasmanian government will assist in promotion of SAWM scheme through existing water efficiency and water sensitive urban design programs.

### Implementation Timetable

<b>Step/Deliverable</b> (Demand Management)	<b>Start date</b>	<b>End date</b>	<b>Lead Agency</b>
Annual KPI reporting by Councils.	On-going	On-going	DPAC
NWC undertake a review of water restriction practices.	June 2006	Dec. 2006	NWC
Demand management projects funded through Living Environment Program.	Commenced	June 2008	DTAE
<b>Implementation of WELS</b>			
<i>Water Efficiency Labelling and Standards Act 2005</i> commenced.	Completed	Completed	DTAE
Implement the WELS scheme nationally.	On-going	On-going	Aust. Govt. through DEH
Tasmania represented on National WELS Steering Committee.	On-going	On-going	DTAE

<b>Smart Water Mark</b>			
Work with EPHC to establish a working group for the consideration of the Smart Water Mark (SAWM) scheme.		Completed	DTAE
Work with EPHC to undertake an assessment of the SAWM scheme.	July 2005	Dec. 2005	
Work with EPHC to establish a policy framework to support the implementation of the SAWM scheme for ongoing engagement.	Dependant on EPHC	Dec. 2006	DTAE
Tasmanian government to assist in promotion of SAWM scheme through existing water efficiency and water sensitive urban design programs.	On-going	On-going	
<b>Progress reports to NRMCC</b>			
Prioritise and implement management responses to water supply and discharge system losses including leakage, excess pressure, overflows and other maintenance needs. (IGA 91(iv)).		End 2006	DPAC
Implementation and compliance monitoring of Water Efficiency Labelling Scheme, including mandatory labelling and minimum standards for agreed appliances. (IGA 91(i)).		End 2005	DTAE
Review effectiveness of temporary water restrictions and associated public education strategies, and consider extending low level restrictions to standard practice. (IGA 91(iii)).		End 2006	DPAC

### **Cooperation with other jurisdictions**

Tasmania will work cooperatively at the national level to progress demand management. Currently a Tasmanian representative sits on the National WELS Scheme Steering Committee. As some of the outcomes under this Action are being driven nationally, the Tasmanian Government will assist to the extent it can, in achieving the milestones set out in the Implementation Timetable.

### **Link to outcomes in the NWI**

The actions support the following outcomes stated in clause 90 of the NWI IGA:

90. The Parties agree that the outcome for urban water reform is to:
- viii) provide healthy, safe and reliable water supplies;
  - ix) increase water use efficiency in domestic and commercial settings;
  - x) encourage the re-use and recycling of wastewater where cost effective;
  - v) encourage innovation in water supply sourcing, treatment, storage and discharge;

### **Link to relevant performance indicators**

Await finalisation of performance indicators at the national level.

# Urban Water Reform

## 24. Innovation and capacity building to create water sensitive Australian cities

### Key action(s) and implementation dates

Key Actions (Innovation and capacity building to create water sensitive Australian cities)	Date	IGA paragraph	Responsibility
Develop and apply national health and environmental guidelines for water sensitive urban designs for recycled water and stormwater.	End 2005	92(i)	All Parties
Develop national guidelines for evaluating options for water sensitive urban developments in both new urban sub-divisions and high rise.	End 2006	92 (ii)	All Parties
Evaluate existing water sensitive urban icon developments.	End 2005	92 (iii)	All Parties
Review institutional and regulatory models for integrated urban water cycle planning and management and develop best practice guidelines.	End 2006	92 (iv)	All Parties
Review incentives to stimulate innovation.	End 2006	92 (v)	All Parties

### Context

#### Water Sensitive Urban Design

The *State Policy on Water Quality Management 1997* (SPWQM) established a framework for achieving sustainable development in relation to surface water quality in Tasmania. Urban runoff is identified as a threat to achieving the objectives of the SPWQM. Water Sensitive Urban Design (WSUD) is seen as best practice for the long-term management of urban runoff quality and has, therefore, been actively promoted through the Derwent Estuary Program since 2002. In early 2005, a draft WSUD Engineering manual was released for Southern Tasmania and will be expanded to a state-wide version by late 2006. The Tasmanian Government's Living Environment Program will also be working to increase adoption of WSUD in new urban development across the State.

On a national level, in October 2003, the NRMCC and EPHC endorsed development of National Guidelines on Water recycling in 2 phases:

- Phase 1 sewage and greywater; and
- Phase 2 stormwater and Water Sensitive Urban Developments.

At its meeting of 9 February 2006, the NWI Committee agreed to establish a Joint Steering Committee for Water Sensitive Cities (JSCWSC) to coordinate and lead the implementation of actions outlined in paragraphs 92(ii) to (v), as an integrated two

step project. The JSCWSC also will ensure there are linkages to the existing Joint Steering Committee for Health and Environmental Guidelines<sup>7</sup> in relation to actions under paragraph 92(i) of the Agreement.

Stage 1 of the project involved collation of background information and review to develop a common understanding of the scope, language and NWI outcomes focus as well as undertaking reviews under paragraphs 92(iii), (iv) and (v). Stage 2 of the project will develop guidelines to support the outcomes under paragraphs 92(i), (ii) and (iv) and evaluation under paragraph 92(iii).

The Department of Tourism, Arts and the Environment (DTAE) is represented on the JSCWSC.

### **Integrated Urban Water Cycle Planning**

Integrated Urban Water Cycle Planning will be driven nationally by the National Water Commission and the Water Sensitive Australian Cities Steering Committee. Their role will be to guide a review of institutional and regulatory models for achieving integrated urban water cycle planning and management and develop best practice guidelines.

A non government Urban Water Advisory Group will also be established by NWI and include membership from relevant professional and industry associations as well as local government to promote capacity building and consultation during actions under paragraphs 92 (ii – v).

As indicated in Action 23 ‘Demand Management’, local councils in Tasmania are responsible for water reticulation, treatment, sewage collection and treatment, stormwater, water infrastructure and catchment management. This large scope creates a number of challenges for the limited resources and expertise available to some councils, in particular those with a small rate base. This impacts on their ability to undertake integrated urban water cycle planning. Substantial funding needs to be secured to support the development of Integrated Urban Water Cycle Planning in Tasmania.

Tasmania will take into account the nationally driven work on this matter and will identify what actions will support the facilitation of integrated urban water cycle planning by councils through a whole of government approach by the Inter-Departmental Committee on Water Policy.

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<sup>7</sup> Relates to existing arrangements set up under the National Water Quality Management Strategy.

## Implementation Timetable

<b>Step/Deliverable</b> (Innovation and capacity building to create water sensitive Australian cities)	<b>Start date</b>	<b>End date</b>	<b>Lead Agency</b>
<b>Water Sensitive Australian Cities implementation Stage 1: Background and Review (JSCWSC)</b>			
Develop background/scope for Water Sensitive Cities project and frameworks guidance to progress stage 1.		March 2006	NWC
JSCWSC provides Priority advice on paragraph 92(i).		March 2006	DTAE
JSCWSC develops common understanding and language.		March 2006	
JSCWSC recommends “priority elements” of WSUD (paragraph 92(i).		May 2006	
Paragraph 92(ii).		May 2006	EPHC
Paragraph 92(iii) – icon water sensitive developments identified.		May 2006	DTAE
Paragraph 92(iv) – institutional and regulatory models.		May 2006	NWC
Paragraph 92(v) – incentives to stimulate innovation.		May 2006	DTAE
JSCWSC prepared consolidated Stage 1 report.			
<b>Water Sensitive Australian Cities implementation Stage 2: Guidelines and Evaluation)</b>			
Paragraph 92(I) – Phase 2.		Nov. 2006	EPHC
Paragraph 92(ii).		Nov. 2006	
Paragraph 92(iii).		Nov. 2006	To be advised <sup>8</sup>
Paragraph 92(iv).		Nov. 2006	NWC
Publication of consolidated findings.		Dec.. 2006	JSCWSC
<b>Water Sensitive Urban Designs</b>			
WSUD manual developed for Southern Tasmania.	Jan. 2005	Feb. 2006	DTAE
WSUD manual extended state-wide.	Feb. 2006	Dec. 2006	
Projects targeting the adoption of WSUD across Tasmania funded through the Living Environment Program.	Aug. 2005	June 2008	
<b>Progress reports to NRMCC</b>			
Evaluate existing water sensitive urban icon developments to identify gaps in knowledge and lessons for future strategically located developments IGA 92(iii).		June 2006	DTAE
Review incentives to stimulate innovation IGA 92(v).		Dec. 2006	DPAC

## Cooperation with other jurisdictions

To date, Tasmania has worked with Victoria and was granted approval to adapt the Victorian Water Sensitive Urban Design Engineering Procedures – Stormwater manual to Tasmanian conditions. This was a similar approach to that taken by other

<sup>8</sup> Further evaluation if required.

jurisdictions, who have also developed local adaptations. These relationships help to provide a nationally consistent approach to water sensitive design.

Tasmania has joined, and will participate in, the Joint Steering Committee for Water Sensitive Cities to implement Paragraph 92 of the NWI Agreement.

As outcomes under this Action are being driven nationally, the Tasmanian Government will assist to the extent it can, in achieving milestones set out in the Implementation Timetable and consider the outcomes of this work when it becomes available.

### **Link to outcomes in the NWI**

The actions support the following outcomes stated in clause 90 of the NWI IGA:

91. The Parties agree that the outcome for urban water reform is to:
  - i) provide healthy, safe and reliable water supplies;
  - ii) increase water use efficiency in domestic and commercial settings;
  - iii) encourage the re-use and recycling of wastewater where cost effective;
  - v) encourage innovation in water supply sourcing, treatment, storage and discharge; and

### **Link to relevant performance indicators**

Await finalisation of performance indicators at the national level.

# Community Partnerships and Adjustment

## 25. Community Partnerships and Adjustment

### Key action(s) and implementation dates

Key Actions (Community Partnerships and Adjustment)	Date	IGA paragraph	Responsibility
Open and timely consultation with all relevant stakeholders in relation to: pathways for returning overallocated systems to sustainable extraction levels, periodic review of water plans, and other significant decisions affecting the security of water access entitlements.	On-going	95	States
Provision of accurate and timely information to all relevant stakeholders in relation to the progress of water plan implementation and other issues relevant to the security of water access entitlements.	On-going	96	States
Address significant adjustment issues affecting water access entitlement holders and communities that may arise from reductions in water availability as a result of implementing the National Water Initiative	On-going	97	All Parties

### Context

In 2000, with the commencement of the *Water Management Act 1999* (WMA), catchment communities and key stakeholders were given an opportunity to directly provide input into how a catchment's water resources could be best managed to achieve the community's economic, social and environmental objectives through the establishment of Water Management Plans. This is consistent with Tasmania *Together* Goal 12: "Provide all Tasmanians with the opportunity to participate in decisions that affect their lives."

Experience in implementing the WMA has been that public consultation on a range of water issues has been fundamental to the successful operation of the Act. Not only has public consultation enhanced the community's understanding of key water resource management issues but it has also resulted in greater participation by stakeholders in a decision affecting water access entitlements.

Tasmania has no significant adjustment issues. The introduction of a moratorium on the issue of new water entitlements during summer in 1995 has protected the rights of existing users and the environment from over-allocation. As a result Tasmania does not have any identified over-allocated river systems and no COAG 1994 water reform framework commitments. Tasmania does recognise that in some areas of the State, water users have historically extracted greater quantities of water than strictly

permitted by their licences. In 2003 Tasmania initiated the Water Use Sustainability Project (WUSP) to deal with this issue. The WUSP provides for adjustment in advance of the formal water management planning process through the formal recognition of historical water use as lower surety water allocations and development of restriction management protocols to sustain the environmental values of the catchment.

In coming years water users reliant on groundwater in specific areas of Tasmania will be more regulated through the introduction of groundwater licensing. Groundwater licensing will be introduced either through water management planning or the establishment of prescribed groundwater areas where the level of water usage threatens the achievement of the objectives of the Act.

Community partnerships and support for adjustment are also being supported through the State's three NRM regions which assist DPIW to form stakeholder and community partnerships. The joint DPIW/TFGA Joint Water Management Committee is also providing a forum for consultation between Government and the largest sector of water users on the efficient delivery of operation and administration services for water management in Tasmania.

### **Water Management Plans**

Water Management Plans are established under Part 4 of the WMA and provide for the sustainable development and management of a water resource or a series of linked water resources. Water Management Plans present a clear statement of the community's environmental, social and economic objectives for the relevant water resources and describe the water management regime that best gives effect to these objectives. The objectives of a Water Management Plan provide a starting point from which the community can ensure trade-offs are negotiated and the process for any adjustment to occur as a result of changes in water entitlements.

The development of Water Management Plans is also supported formally through the Water Resources Policy #2005/1 *Generic Principles for Water Management Planning* that provide a clear and consistent approach to dealing with planning matters outside the prescribed requirements of the WMA. This includes guidance on the community consultation processes used during the development of a draft Plan.

The value of stakeholder involvement in the earlier stages of the planning process has been recognised and to this end consultation may be facilitated by a range of activities including the establishment of a Consultative Group, direct contact with peak stakeholder bodies, focus groups and public meetings.

Generally, DPIW's preferred option is the establishment of a Consultative Group representing the various interest groups in the catchment. The role of such a group will be to advise the Department on local water management issues; to seek advice from their representative organisations and to represent their economic, social and environmental interests; and to facilitate education of and dialogue with respective stakeholder groups.

No time period is prescribed at which a Water Management Plan must be reviewed. Rather, the Act provides that a Plan is to be reviewed “in accordance with the requirements specified in the Plan” or where the Minister is satisfied that a review is desirable “owing to environmental, economic or other reasons” relating to the relevant water resource (Section 34 of the WMA).

Tasmania recognises that in some catchments information about the water resources and current and future water usage used to develop a Plan will be limited, at least for the initial Plan. In such cases, it is appropriate to review the Plan and make refinements as relevant information becomes available. To provide a reasonable level of certainty for water users, trigger points at which a review is to be considered may be specified in a Plan.

If a review period is specified in a Plan, this is determined through consultation with the Consultative Group during the Plan development phase. Where feasible, triggers will be specified for initiation of a review of part or all of a Plan with the triggers generally guided by the level of water resource development and confidence in information underpinning the Plan, together with the need for certainty for water users.

### **Groundwater management**

Currently the WMA provides that groundwater may be taken for any purpose without the need for a licence unless another instrument under the Act (eg. regulations, a Water Management Plan) provides otherwise. The WMA does not require universal licensing of groundwater as it was considered not to be a high priority for most areas of the State. The 2001 National Land and Water Resources Audit indicated that on a statewide basis around 8% of the sustainable yield was being used.

However, as more and more restrictions are placed on the taking of surface water, there is more pressure on groundwater and in some specific areas of the State the increasing use of groundwater for irrigation has led to potentially unsustainable extraction levels. Currently an integrated licensing system is under development that will be implemented where groundwater resources are under stress or need to be managed in a more coordinated way with surface water. This system will be initially trialed in the Mella and Great Forester regions.

Such a system will provide security of supply to users, ensuring that future development does not impact on the rights of existing users or the environment. Stakeholder engagement will be an important step for DPIW to undertake to ensure the successful introduction of groundwater licensing. This will also be supported through enhanced information on surface and groundwater interactions with the commencement in 2006 of the Australian Government Water Fund Project: “Better information for better results – enhancing water planning in Tasmania”.

The project provides for the development of surface-groundwater models for up to 20 selected catchments already under some level of stress due to water usage, or with potential to become stressed. Detailed knowledge of groundwater hydrology in these catchments is currently poor and the development of these models will provide

essential planning information to support the development and implementation of a groundwater licensing system and to develop water accounts for Tasmania.

## Implementation Timetable

Step/Deliverable (Community Partnerships and Adjustment)	Start date	End date	Lead Agency
Development and review of Water Management Plan (for more details see Action 3).	Commenced	On-going	DPIW
Continuation of the Water Use Sustainability Project (for more details see Action 4).	Commenced	June 2008	
Introduction of groundwater licensing (for more details see Actions 1 and 4).	Commenced	Dec. 2007	
Report on Tasmania's progress in having open and timely consultation with all relevant stakeholders in relation to: <ul style="list-style-type: none"> <li>pathways for returning overallocated systems to sustainable extraction levels;</li> <li>periodic review of water plans; and</li> <li>other significant decisions affecting the security of water access entitlements. (IGA 95).</li> </ul>	On-going	On-going	
Report on Tasmania's progress on the provision of accurate and timely information to all relevant stakeholders in relation to: <ul style="list-style-type: none"> <li>the progress of water plan implementation; and</li> <li>other issues relevant to the security of water access entitlements. (IGA 96).</li> </ul>	On-going	On-going	
<b>Progress reports to NRMCC</b>			
Report annually on how Tasmania addresses significant adjustment issues affecting water access entitlement holders and communities that may arise from reductions in water availability as a result of implementing the National Water Initiative. (IGA 97).	On-going	On-going	DPIW

## Cooperation with other jurisdictions

Nil.

## Link to outcomes in the NWI

The actions support the following outcomes stated in clauses 93 and 94 of the NWI IGA:

93. Parties agree that the outcome is to engage water users and other stakeholders in achieving the objectives of this Agreement by:
- vi) improving certainty and building confidence in reform processes;

- vii) transparency in decision making; and
  - viii) ensuring sound information is available to all sectors at key decision points.
94. Parties also agree to address adjustment issues raised by the implementation of this Agreement.

**Link to relevant performance indicators**

Await finalisation of performance indicators at the national level.

# Knowledge and Capacity Building

## 26. Knowledge and Capacity Building

### Key action(s) and implementation dates

Key Actions (Knowledge and Capacity Building)	Date	IGA paragraph	Responsibility
Identify the key science priorities to support implementation of the National Water Initiative and where this work is being undertaken.	On-going	101(i)	All Parties
Implement any necessary measures to ensure the research effort is well coordinated and publicised, and any gaps are addressed.	On-going	101(ii)	All Parties

### Context

The Tasmanian government is working at a number of levels to increase knowledge and capacity building through a whole of government approach. To achieve this, an Inter-Departmental Committee on Water Policy has been established to oversee Tasmania's implementation of its NWI obligations with representation from the Departments of Premier and Cabinet, Primary Industries and Water, Arts, Tourism and the Environment, Economic Development, Infrastructure, Energy and Resources and Treasury and Finance. The secretariat for the Inter-Departmental Committee on Water Policy is based in the Water Resources Division, DPIW.

DPIW is continuing to foster linkages at various levels (both formally and informally) to ensure that a range of working/consultative groups with representation from peak body, stakeholder groups and scientific experts exist for a variety of projects.

Tasmania has previously made significant investment in enhancing the baseline monitoring network and establishing partnerships with other stakeholders that collect water information. This is to ensure that the most comprehensive information is available on which to base informed water management decisions and is a key component of the *Tasmanian Surface Water Quality Monitoring Strategy*. However, Tasmania has recognised during the development of previous Water Management Plans that a number of tools are required to more effectively progress elements of the planning process. These include activities which Tasmania is or is proposing to undertake as part of its implementation of the NWI:

- Accurate assessment of current catchment water use in relation to natural flow regimes (surface and groundwater).
- Identification of conservation management priorities of freshwater ecosystem values within a catchment.
- Determination of appropriate environmental flow regimes.

- Assessment of the impact of major land use change such as interception from large scale plantations on water resource availability.
- Assessment of the impact of climate change including further modelling of rainfall and the impacts on water storages, sector-level analysis of potential climate change impacts, building knowledge of changes in water availability, and further work on the impact of extreme weather events on dam safety.

The National Water Commission (NWC) has proposed to develop a knowledge strategy. This will enable the identification of the key knowledge and capacity building priorities needed to support ongoing implementation of the NWI, and identify and implement proposals to more effectively coordinate the national water knowledge effort. The NRMCC NWI Working Group will work with the NWC on implementation of paragraph 101 of the NWI Agreement. Through its involvement in the NRMCC NWI Working Group, Tasmania will support this work.

### Implementation Timetable

Step/Deliverable (Knowledge and Capacity Building)	Start date	End date	Lead Agency
<b>Strategic capacity building</b>			
Establishment of the Inter-Departmental Committee on Water Policy.	Completed	Completed	DPIW
<b>Projects facilitating knowledge and capacity building:</b>			
Implementation of the holistic environmental flow methodology, supported by NAP/NRM (for more details see Action 16).	Commenced	Dec. 2008	DPIW
Ongoing implementation of the CFEV Project (for more details see Action 16).	Commenced	On-going	
Targeted monitoring projects to support environmental and public benefit outcomes (for more details see Action 16).	Commenced	April 2007	
Enhanced knowledge of surface-groundwater systems through the implementation of the “Better information for better results – enhancing water planning in Tasmania” Project (for more details see Action 18).	Commenced	Jan. 2008	
On-going development and review of Water Management Plans (for more details see Action 3).	Commenced	On-going	
Enhanced understanding of interception from large scale plantations (for more details see Action 7).	Commenced	2011	
Development and implementation of the Tasmanian Climate Change Strategy.	Commenced	On-going	
Work with the NRMCC NWI Working Group and National Water Commission to develop a suitable timetable for implementing IGA 101 .		June 2006	
NRMCC provided with updates on development and status of ‘knowledge strategy’		On-going	

### **Cooperation with other jurisdictions**

Tasmania will work cooperatively through the NWI Working Group to progress knowledge and capacity building in relation to this Agreement.

### **Link to outcomes in the NWI**

The actions support the following outcomes stated in clause 100 of the NWI IGA:

100. Parties agree that the outcome of knowledge and capacity building will assist in underpinning implementation of this Agreement.

### **Link to relevant performance indicators**

Await finalisation of performance indicators at the national level.