



Tasmania

PREMIER

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Senator Andrew Murray
Chair
Senate Rural and Regional Affairs and Transport References Committee
SG.62
Parliament House
CANBERRA ACT 2600

Dear Senator Murray

Please find attached the Tasmanian Government's submission to the Senate Rural and Regional Affairs and Transport References Committee Inquiry into Water Policy Initiatives.

Yours sincerely

Paul Lennon
Premier





Tasmania

*Senate Rural and Regional Affairs and
Transport References Committee*

Inquiry into Water Policy Initiatives

Tasmanian Government Submission

December 2005

The principal instrument for managing water resources in Tasmania is the *Water Management Act 1999*. The Tasmanian Government is currently undertaking a statutory review of this Act and on 24 May 2005 a *Report on the Operation of the Water Management Act 1999* was presented to the Tasmanian Parliament. The report provides a comprehensive overview of water management in Tasmania. A copy of the report is attached for your information.

(a) Development of Water Property Titles

Under the Tasmanian *Water Management Act 1999*, consumptive users are required to hold a water licence with a water allocation from a specified water resource endorsed on that licence, before they can legally take water from Tasmanian rivers and streams. The only exception is users with rights under Part 5 of the *Water Management Act 1999*, for example, stock and domestic users.

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. Tasmania's water entitlements are widely recognised as ongoing. This means that while water licences and allocations are granted for a specified period of time, provided that the licensee meets the requirements of s80 of the *Water Management Act 1999*, they must be automatically renewed upon application. Section 80 refers to matters such as not having been convicted of an offence under the Act, not having been disqualified from holding a licence, payment of fees and compliance with licence conditions.

Tasmania currently does not have a system of water property titles. However, as a signatory to the National Water Initiative, the Tasmanian Government will be reviewing the current water management system to ensure consistency with national requirements. This will draw on work undertaken at the national level as well as investigations by the Tasmanian Government. The Tasmanian Government is in the early stages of reviewing the feasibility of introducing a Torrens based system in relation to the registration of water rights. It is likely that such a system will only be implemented where it is considered to be cost effective.

(b) Methods of Protection for Rivers and Aquifers

Tasmania has a robust framework for ensuring that its freshwater resources are protected. A range of activities have been undertaken to support the implementation of the *Water Management Act 1999* resulting in a number of positive outcomes for Tasmania's freshwater resources, including:

- promoting and fostering social and economic benefits from the development of water resources;
- maintaining ecological processes;
- providing for the fair, orderly and efficient allocation of water resources; and
- enhancing the community's understanding and involvement in water resource management.

The *Water Management Act 1999* has enabled Tasmania's water resources to be managed to protect the rights of existing water users and the environment. The framework used in Tasmania also allows the identification of opportunities for further water development consistent with protecting these rights.

The primary mechanism for management of water quality in Tasmania is through the *State Policy on Water Quality Management 1997*. The State Policy established a water quality management framework including protected environmental values and water quality objectives for Tasmanian water resources.

In addition, Tasmania has implemented a number of programs and policies to ensure water resources are protected from over allocation. This includes undertaking environmental flow assessments for priority river systems, developing Water Management Plans, implementing the Water Use Sustainability Project and establishing conservation priorities through the Conservation of Freshwater Ecosystem Values Project. Over the past five years Tasmania has introduced a number of water resources policies to support the management and protection of water, including:

- Generic Principles for Water Management Planning;
- Enforcement Policy for the *Water Management Act 1999*;
- Guiding Principles for Water Trading in Tasmania;
- Guidelines to Assess Applications for New Water Allocations from Watercourses During Winter; and
- Water for Ecosystems Policy.

It should also be noted that Tasmania does not have any over allocated systems. Water is allocated under various levels of surety that reflect the reliability of flows in a river system and, in general, water is allocated such that 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, for eight years out of ten.

In 1995 Tasmania introduced a moratorium on the issuing of new water entitlements during summer. This has ensured that new allocations for summer water takes can only be made where appropriate environmental flow regimes have been established. This has protected the rights of existing users and the environment from over allocation.

Through the Water Development Plan initiative and ongoing work with stakeholders, a range of significant opportunities for sustainable and efficient water development have been identified with a particular focus on the irrigated agriculture sector. This has been achieved through a number of mechanisms:

- investigation of strategic water development opportunities;
- effective decision making for new water development proposals;
- maximising water availability in some areas of Tasmania; and
- providing tools for more effective local management of water.

Tasmania's current framework for protection of rivers and aquifers will be supported through additional actions that will be identified as part of the Tasmanian Government's Implementation Plan for the National Water Initiative.

A project funded under the Australian Government Water Fund, entitled *Better information for better results – enhancing water planning in Tasmania*, will complete surface water balance models for 54 agricultural catchments and fund the development of 20 integrated surface-groundwater balance models. The information provided by the project will allow informed and expedient water management planning decisions based on sound science to progress catchment water management plans across Tasmania. The development of both surface and groundwater balance models will contribute significantly to understanding the interactions and connectivity between surface and groundwater systems and support a more integrated system for their management as a single resource where required.

Tasmania's streamflow, water quality and river health baseline monitoring network provides an early warning mechanism for environmental issues. This includes maintenance of 54 stream gauging sites in Tasmania's developed catchments, collection of water quality data and implementation of the Tasmanian Surface Water Quality Monitoring Strategy. During 2004-05, the Tasmanian Government committed \$154,000 to implement a pesticide-monitoring program. This includes quarterly monitoring for a range of pesticides at all 54 stream gauging sites plus two additional sites and an event based monitoring program for the detection of pesticide levels during flood events in four targeted catchments.

Specific site monitoring is also undertaken as necessary, for example, increased streamflow, water quality and river health monitoring has been undertaken as part of the implementation of the Great Forester Catchment Water Management Plan. Additional monitoring may also be required in some catchments to support the implementation of restriction management protocols under the Water Use Sustainability Project, and may also be required to support Natural Resource Management (NRM) strategies, both in terms of environmental flow protection and water quality targets.

Tasmania's topography means that there are a large number of small catchments that require monitoring. This is quite a different situation to other States, where much larger catchments exist. Consequently, monitoring can be resource intensive and the Tasmanian Government has limited resources with which to undertake additional monitoring. The Commonwealth could play a role in supporting such monitoring.

(c) Farming innovation

Consistent with national trends the size of holdings has increased, and the number of farmers decreased due to consolidation and, as is the case in some other parts of Australia, through the use of land for forestry production.

Tasmanian farmers are aging and young people are reluctant to enter the industry. Some industries are experiencing growth, for example, dairying, whilst others, such as vegetables, are in decline. Skill levels of those participating in the industry will be required to increase, particularly management skills and skills to effectively utilise a range of technologies. Extreme competition from least cost competitors will drive innovation, both in technologies and cooperative arrangements in an attempt to drive costs out of local supply chains.

Growth in Tasmanian agricultural production in recent years has clearly been tied to water development and to the expansion of irrigated cropping. Fifty percent of the gross value of agricultural production in Tasmania is now produced from irrigated land.

Two key trends are:

- greater reliance on more intensive irrigated production systems, both in pasture based systems (dairying) and cropping (for example, wine grapes, cherries, poppies); and
- greater emphasis on water use efficiency – better monitoring of crop requirements and soil moisture, uptake of more efficient irrigation systems (for example, a move from gun irrigators to centre pivots).

Future market led increases in agricultural production will lead to greater demand for water. A recent consultant's report identified the following sectors as those with the greatest capacity to contribute to growth in production in Tasmania – dairying, cherries, poppies, wine grapes, apricots and potatoes – all of which are dependent upon irrigation.

A key constraint to achieving the growth opportunity for all of these sectors is water availability and reliability. The Tasmanian Government *Report on the Operation of the Water Management Act 1999*, May 2005, pages 21-24, discusses maximising water availability and local management of water development in Tasmania.

An ongoing project in the vegetable and dairy industries has identified opportunities, through improved soil moisture monitoring information, to improve irrigation management and hence achieve higher levels of water use efficiency on farm. This project has been important in allowing improved management of new irrigation systems such as pivot, linear move and solid set, which have been increasingly adopted in recent years in Tasmania.

(d) Monitoring drought and predicting farm water demand

The above mentioned consultant's report identified a potential for \$300 million in increased agricultural production over ten years requiring an additional water requirement of 150,000 megalitres, although some of this water could come from substitution effects or increasing irrigation efficiency.

(e) Implications for agriculture of predicted changes in the patterns of precipitation and temperature

As noted above, the Tasmanian Government is currently undertaking a review of the *Water Management Act 1999*. As part of this process the Government received some thirty public submissions. The impact of climate change on water allocations was raised in a number of these submissions. However, the Tasmania Government does not yet have information that is sufficient to predict with any reasonable degree of accuracy the impact that climate change will have on particular agricultural activities.

Current indications are that average Tasmanian temperatures will increase. This is expected to manifest through greater variability in the temperature range, with the warming likely to be most evident in spring and least evident in winter. The number of frosty days is also expected to decrease, which may affect some activities negatively and others positively.

Average total rainfall is not predicted to change dramatically, although seasonal and regional patterns of rainfall are expected to alter. There is likely to be increased winter rain and declining summer, spring and autumn rainfall across the State. It is also expected that total

rainfall in the west and south may increase while the north and east will decline, which may result in reduced rainfall for high agricultural production areas.

These regional water issues may be exacerbated by evaporation, which will be enhanced by increasing average temperatures and higher wind speeds. This will result in a decline of soil moisture, with subsequent impacts upon soil fertility and an increased demand upon irrigation infrastructure.

The relatively large number of small catchments in Tasmania means that greater detail is needed from climate change models. Hydro Tasmania, in conjunction with the CSIRO, is currently preparing detailed projections for Tasmania's climate over the next 20 years. The Commonwealth Government is encouraged to continue to develop climate models with greater predictive power for smaller regions and to provide assistance in the evaluation of raw climate data and the development of effective strategies to enhance the sustainability and adaptive resilience of various agricultural activities.