



New South Wales

DEPARTMENT OF PRIMARY INDUSTRIES



DA05/773

28 NOV 2005

Mr James Cox
Chief Executive Officer
Independent Pricing and Regulatory Tribunal
Level 2, 44 Market Street
SYDNEY NSW 2000

Dear Mr Cox

Thank you for the opportunity to provide input to the IPART Review of Bulk Water Prices from 2006/2007. Please find attached a submission which raises issues for consideration by IPART in this Determination.

Of particular concern is potential short term pricing increases as the NSW irrigation industry emerges from the worst drought in 100 years.

IPART is also requested to consider the issue of innovation in water resource management and water delivery systems and impacts on future water charges. It is suggested that IPART discuss with the National Water Commission innovative approaches in these areas that may have been presented during the June 2005 call for submissions for funding from the Australian Government Water Fund.

A copy of the Business Plan from the National Program for Sustainable Irrigation is attached for your information. This National Program is a potential source of information on innovation in water resource management. The Program Coordinator is Murray Chapman (03) 5763 3214, fax (03) 5763 3241, email rplan@benalla.net.au

NSW Department of Primary Industries is prepared to discuss these issues further with the Tribunal as the Determination process proceeds.

Yours sincerely

B D BUFFIER
DIRECTOR-GENERAL

Encl

NSW Department of Primary Industries Submission to IPART on Bulk Water Prices from July 2006

NSW DPI and Water Management in NSW

The NSW DPI Corporate Plan articulates our vision, values and strategic directions for the period 2005-08. Over the next three years we will be working with our stakeholders toward a vision of 'profitable and sustainable primary industries building vibrant communities'.

To achieve this vision, NSW DPI has identified the following Key Result Areas:

- Strong economic performance of primary industries
- Appropriate access to and wise management of natural resources
- Healthy and safe industries
- Stronger voice for primary industries in Government decision-making
- Excellence in service delivery to stakeholders.

The first two KRAs involve NSW DPI in the water management arena in a combination of roles. NSW DPI:

- provides expertise to assist with planning for water management/sharing;
- provides research and extension in irrigation to improve water management at the farm level; and
- has some regulatory responsibilities in the fisheries area.

In the immediate past, there has been a level of activity by NSW DPI which reflected the government's significant emphasis on water reforms. Funding for much of this activity was provided through Treasury Enhancements associated with the Water Management Act Implementation and the Water Reform Structural Adjustment Program. Much of that focused activity is now concluded. Present activities are primarily funded from recurrent funding. NSW DPI is investing about \$3 m annually in the water planning and irrigation extension areas alone.

Full Cost Recovery

NSW DPI agrees that bulk water prices should reflect lower bound prices, and gradually make progress towards upper bound full cost recovery pricing levels. However, NSW DPI is concerned by the large increases in proposed bulk water costs (both State Water Corporation (SWC) delivery costs and NSW Department of Natural Resources (DNR) water resource management costs) since the 2001 Bulk Water Prices determination.

NSW DPI is particularly concerned about the impact of these potential price increases on irrigators in regions where the costs of bulk water supply are shared by a relatively small number of water access entitlement holders (such as the North Coast, South Coast and Peel), and especially given the assertion within the SWC submission that existing NSW Government subsidies (which currently cover operating expenditures in valleys where they are currently not fully recovered from users) must be phased out over the next five years. NSW DPI does not support the imposition of cross-subsidies between valleys, and believes that mechanisms must be developed to ensure that irrigators in valleys facing large increases in bulk water prices can adjust to these increases. It is critical in all cases

that DNR and SWC costs are constrained to efficient and effective delivery and service charges.

DNR and SWC should be encouraged to investigate and invest in new and innovative systems which minimise ongoing and increasing charges to water users.

Issue for consideration

Issues within the DNR and SWC proposals that NSW DPI would specifically encourage IPART to critically analyse during the determination of bulk water prices include:

- *The methodology used by DNR and SWC to determine their respective regulatory asset base (RAB) and weighted average cost of capital, used for calculating the required return on assets;*
- *The rationale proposed by DNR for changing the existing cost sharing framework, used for allocating costs between water users and government. For example, DNR needs to provide justification of some of their activities being costed fully to the irrigation community when there is clearly a larger community benefit, or environmental outcome from the activity such as wetland ecology. It is important that all water users pay appropriate charges and where individuals or groups are not able to identified to pay costs then government pay on their behalf*
- *The DNR proposal to apply uniform water resource management tariffs across valley groupings, rather than to individual valleys. NSW DPI contends that while averaging of these costs across years may be necessary because of the "lumpy" nature of some water resource management investments, the allocation of these costs to individual valleys contributes significantly to maintaining transparency and efficiency in the determination of these costs. In addition, the historical analysis of water resource management costs may not accurately reflect future costs in various valleys, potentially resulting in significant future cross-subsidies between valleys if "valley grouping" was adopted. NSW DPI therefore considers that DNR would need to demonstrate that the current approach of applying water resource management costs to individual valleys imposes large unnecessary costs before the "valley grouping" proposal is accepted; and*
- *The DNR rationale for recovering water resource management costs entirely through a single access charge based on ML of water entitlement. NSW DPI agrees that there are significant limitations in the ability of usage-based pricing to achieve demand management objectives. However, NSW DPI disputes the need for DNR to move to a fixed charge on entitlement volume in order to maintain DNR revenue stability during periods of low water usage (such as during droughts). DNR has a much greater ability to accommodate fluctuations in revenue during drought than the irrigators who pay these costs.*
- *The validity of costs by DNR and SWC for the implementation of Water Sharing Plans and the sharing of costs across water users and the community.*

Impact on the irrigation industry in NSW

Irrigation industry cost increases of the magnitude identified with DNR and SWC submissions will erode already slim margins for many irrigation farmers. Global economic forces dictate prices received for many products eg wheat, oilseeds, etc, as well as prices paid for inputs eg fuel fertiliser etc. Another increase in input costs will further impose on irrigation industry's ability to actively undertake improvements in their business. The whole rural community benefits from a vibrant irrigation industry. The economic multipliers from irrigated production are recognised as being higher than for rainfed agricultural systems.

These increased price rises will not necessarily force irrigation industry to move to higher value crops eg grapes, olives etc, as they have market forces working against them already. This view is idealistic and can work in some cases, however, there is always a state of flux on what is a high value crop, depending on the country's food needs, climate eg drought, and other economic forces.

Irrigation farmers need to be profitable in what they do, so that they may make informed decisions, and be able to adapt to changing market forces with a minimum of fuss, and cost to their business. Eroding viability by continually increasing costs such as water to a great extent will only lead to lower reinvestment into existing infrastructure (systems, pumps, new technologies etc.), which may result in poorer environmental outcomes.

There may be an opportunity for bulk water customers to negotiate delivery WRM charges with SWC and DNR. It has been argued that in a business situation, purchasers and providers may negotiate a price for provision of a product. This could be the case where customers have access to technology such as telemetry based meters that enable a reduction in labour requirements, which are a major component of SWC's costs.



NATIONAL PROGRAM FOR
Sustainable Irrigation

Draft 31 October 2005

**Phase 2 Strategic Direction
2006 – 2009**

The National Program for Sustainable Irrigation will complete its first phase in June 2006. The purpose of this paper is to develop agreement amongst current and future Program investors about the substantial elements of the next Phase.

2002 - 2005

An external evaluation has been commissioned and results will further inform the Phase 2 Business Plan. We know that the Program has been valuable in generating knowledge of relevance to irrigation regions and commodities about the need and how to improve sustainability. The approach in Phase 1 has resulted in substantial partnerships being formed to concentrate on northern Australia irrigation futures, as well as irrigation futures in established 'old' irrigation areas such as the Goulburn-Broken in Victoria.

Essential research into rootzone salinity issues has been commenced with highly valuable results for production and the environment, and scoping to understand and plan for new approaches such as Open Hydroponics has been completed. Ecological Risk Assessment has been developed with regional industries for practical application in catchments, and there has been improvement in the development and management of reclaimed water in horticulture, including understanding the attitudes of consumers.

The partnership approach to discussing and funding essential research has been a positive one, and useful for the new CRC for Irrigation Futures as it further develops its research program. The partnership approach has resulted in cross-fertilisation of ideas with consequent benefits. For example, the Harvey(WA) project substantially benefited from the experience and knowledge of

Queensland and Victorian researchers. The method of achieving research focused on production and sustainability has become clearer, with the Program providing clear signals of investor priorities and a purchasing role, for providers such as CRC IF and others. The establishment of research steering committees that represent investors, technical experts and end-users has aided early adoption.

All these activities have helped build a foundation for more productive *and* sustainable water and land use systems. There is the opportunity to progress this substantially through another 3 year investment program.

Management Committee

There are 14 funding partners in Phase 1 representing irrigators, water authorities, research agencies, Commonwealth and state departments and commodity groups. A skills based management committee provided strategic direction and governance for phase 1. With agreement from investors it is envisaged a similar arrangement for phase 2 would apply.

Important functions for Phase 2

In late 2004 the management committee undertook its own research project to consider future sustainability and production issues for the irrigation sector that could be advanced by research investment. As a result, functions were identified that the Program could usefully perform that were not otherwise being addressed.

Phase 2 will perform the following functions:

- Provide a mechanism for irrigation research investors Australia wide to collaborate. Research priorities would be determined through constructive discussion and well informed debate
- Provide investors with control over the research direction and provide a balance of investment in short term and long term sustainability issues.
- Define in research terms total systems approaches that:
 - Improve the harmonisation of the irrigation production system with the natural water system. Such a system will be required to be resilient to reduce the risk of shocks such as greater variability in weather patterns and water availability.
 - Clarify the nett benefits and identify the constraints of different systems approaches.
 - Develop a decision support framework for determining whether to work from the catchment scale (down) or block/paddock scale (up).
- Promote partnership on fundamental issues across irrigation based commodities, particularly in root zone management and the associated water and solute transport issues.
- Develop a cooperative irrigation industry research communication and knowledge management system that delivers a simpler, more efficient service to users. It is considered unlikely that the Program would provide the ongoing knowledge management function beyond –
 - maintaining its web knowledge base as a current, useful search and retrieval engine for all users on information that informs sustainable irrigation
 - investing in capacity development where the Program works directly with partner commodities to extend the latest research information for adaptation/adoption.
- Facilitate the discussion of research needs and implementation for the industry from 2009 – 2015.

- Undertake short term research to improve our understanding of emerging issues and concepts (such as has been undertaken in Phase 1 for Broad-acre Open Hydroponics and System Harmonisation).

To further inform Phase 2 a short consultancy is being undertaken to strategically analyse irrigation R&D needs and priorities, including opportunities to support adoption of R&D outputs. This analysis will ensure that the work undertaken internally by the investing partners through the Program's management committee is built on by an external assessment.

Land and Water Australia – managing partner

The Program's management committee advised Land and Water Australia (LWA) that it supported the Program's continuation via a second phase. The LWA Board agreed at its meeting in June 2005 that it would support the development of a new phase with an in-principle allocation of \$1,500,000 subject to confirmation of partner support and investment. LWA has provided financial support for the development of a phase 2 Program.

The Program's proposed Vision, Mission and Objectives are

Vision

Australia is demonstrably a world leader in sustainable irrigation

Mission

To provide Australia with research and innovation to achieve sustainable irrigation.

Planned outcome

Substantial improvement in the environmental and productive performance of irrigated agriculture and horticulture in Australia.

Program Objectives

- To improve the technology and innovation available for improved irrigation sustainability
- To substantially increase the consideration of ecological impact as a factor in the design or re-configuration of irrigation systems
- To provide the irrigation industry with technology and innovation to enable it to continue as a profitable user of limited water resources. Inform public policy with regard to how this can be achieved.
- To improve the adoption of new technology and innovation

Clients

Program clients are irrigation based commodity groups and their growers, irrigation utilities, policy makers, resource managers and research providers.

Priority Research & Innovation Investment Areas

- Defining and developing systems that achieve harmony and efficiency of the irrigation system with the natural water system whilst maintaining resilience to reduce the impact of shocks.
- Improving technologies for measurement and monitoring
- Development of a cooperative irrigation industry research knowledge management system
- Root zone management and the associated water and solute transport
- Initiate specific research and knowledge outputs to support the implementation of the National Water Initiative
- Undertake short term research to improve our understanding of emerging issues and concepts. Eg Phase 1 undertook a study on Broad-acre Open Hydroponics and System Harmonisation.

Investment partners

There is considerable diversity among the many clients of sustainable irrigation research and innovation. This provides complexity, but also provides the merits described by the Program's management committee above. As an Australia wide program, the National Program for Sustainable Irrigation should achieve investor partnerships across all states. In Phase 2 the Program should continue to represent the widest possible range of stakeholders and expand its investor base.

Investing organizations are expected to be:

- Commodity research and development corporations
- Water authorities/companies
- State and Commonwealth agencies with the charter to improve the sustainability of irrigation by encouragement or regulation

Management structure

A skills-based Program Management Committee representing the interests of the partners will manage the Program investment and make recommendation from time to time to the managing partner, Land & Water Australia. Day-to-day administration of the program will be undertaken by Land & Water Australia. The management structure is:

Land & Water Australia Board
NPSI Management Committee
Program Coordinator