PRODUCTIVITY COMMISSION RESEARCH STUDY

RURAL WATER USE AND THE ENVIRONMENT: THE ROLE OF MARKET MECHANISMS

VICTORIAN GOVERNMENT COMMENTS ON DISCUSSION DRAFT

JULY 2006

BACKGROUND

The Victorian Government welcomes the opportunity to comment on the Productivity Commission's Discussion Draft on *Rural Water Use and the Environment: The Role of Market Mechanisms*.

The purpose of this submission is to comment briefly on aspects of the Discussion Draft and help inform the Commission's final research study report. Representatives from the Department of Sustainability and Environment are also available to meet with the Commission should it require any further information or clarification of issues raised in this submission.

GENERAL COMMENT ON DISCUSSION DRAFT

Victoria supports the draft report's conclusion that markets are already making a significant contribution to allocating rural water to higher value uses but there is considerable scope to improve performance.

It also accepts the draft report's overall strategy of continuing to develop an expanded water market (provided trade proceeds on a competitively neutral basis) and exploring opportunities to use alternative market mechanisms to address water-related environmental externalities.

However, the Victorian Government considers that more attention needs to be given to:

- the interrelationships between certain issues rather than considering the economics of particular issues in isolation;
- prioritising the Commission's findings into short and longer-term issues to focus the attention of governments; and
- the next steps or minimum actions required to achieve the potential benefits associated with a number of findings.

By considering the economics of certain issues in isolation, the report fails to recognise how different findings may interact to achieve the stated goal of expanding the water market.

For example, the economics of exit fees linked to water trades suggest that they are inefficient and should be removed. However, if these fees were linked to infrastructure, set appropriately and subject to independent scrutiny, they could potentially play a role in building irrigator confidence in the market and paving the way for other restrictions, such as the NWI's 4% limit on trade, to be lifted.

Other areas where the interrelationships of certain findings could be further explored include:

- risks associated with developing multiple water products when the primary market for water is not settled; and
- options for setting an externality tax and the funding arrangements for environmental managers and/or purchasing water for the environment.

The draft report has some 31 preliminary findings. To assist governments in identifying the issues that need to be addressed immediately compared to longer-term issues that require further work/research, the report could benefit from prioritising its findings.

In addition, to avoid certain findings being considered "aspirational" or "too hard at this stage", the report could benefit from providing practical next steps or minimum action required under certain findings.

For example, the finding that return flows need to be accounted for in entitlement specification and/or resource management policies is qualified due to the lack of knowledge about return flows and therefore recommends adaptive management and the use of interim measures in high priority areas. This finding could be strengthened by a discussion on the practical steps required to specify an entitlement and the issues that need to be considered irrespective of the current level of knowledge. Chapter 5 of Victoria's *Draft Central Region Sustainable Water Strategy* provides a discussion of Victoria's proposed policies with respect to defining rights to water and proposes that stormwater, recycled water and irrigation drainage not be included when bulk water entitlements, diversion licences and environmental water reserves are determined.

Similarly, the finding on exit fees could benefit from minimum requirements in relation to how these fees should be set if governments/authorities decide to levy, or continue to levy, exit fees (discussed further below).

The Victorian Government would also like to draw the Commission's attention to its recently released National Water Statement, *Governments Working Together, National Water Reform, The proposals of the Victorian Government* (copy attached). This Statement calls for a rethink on how water reform is managed and funded in Australia and is relevant to how the findings of the Commission's study could be best implemented, particularly across State boundaries.

The Statement is also relevant to the Commission's discussion on investing in off-farm infrastructure and identifying opportunities to source water for the environment. It makes recommendations on how the $1.8 billion Australian Government Water Fund should be administered and highlights the need for improved management of the Darling River to provide environmental benefits to both the River Murray and the Darling River itself. Options for improved management of the Darling River to address environmental externalities include the clawing back of water from floodplain harvesting. This could be achieved through a combination of market mechanisms and targeted investment in off-farm infrastructure.

The recommendations in Victoria's Statement generally seek to generate greater economic, social and environmental benefits from the investment funds available as well as identifying all possible sources of water for the environment.

COMMENTS ON SPECIFIC FINDINGS

Comments on certain findings in the draft report where Victoria has concerns and/or believes the findings could be improved are set out below.

Preliminary Finding 2.2:

Unbundling water entitlements into tradeable water share and delivery share components may be beneficial in areas where there is substantial congestion of water delivery.

The unbundling of water and delivery shares will enable any access and exit fees to be linked to the delivery share rather than the water share. This should free up the water market by allowing individuals to make decisions about trading water independently of decisions about the provision of irrigation infrastructure. It also recognises the value derived by landowners who have access to the infrastructure and provides other benefits such improved infrastructure management and greater certainty/transparency around the terms and conditions of supply.

The linking of access and exit fees to the delivery share also reduces the potential for these fees to become an impediment to trade, a point supported by a recent ABARE[1] report, which suggested that:

> If infrastructure access was unbundled, irrigators could be required to pay the annual access charge or a lump sum reflecting the capitalised value of the annual access fee to recover recurrent non-volumetric costs. If this liability was independent of whether an irrigator elected to trade all or part of their entitlement it would not distort the incentive for trade.

This suggests that unbundling of water entitlements is beneficial even where there is no substantial congestion. Therefore, it may be useful for the Commission to consider the benefits of establishing delivery shares in two parts:

- the application of market-based instruments for resolving access issues when infrastructure capacity is constrained; and
- the arrangements for managing and recovering the costs of providing delivery infrastructure and the impact those arrangements may have on the water market.

The discussion on the benefits of delivery shares for managing and recovering the costs of infrastructure and implications for the water market should then be cross-referenced and incorporated into the discussion and findings on exit fees.

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[1] Goesch, T., Hafi , A., Heaney, A. and Szakiel, S. 2006, *Exit Fees and Interregional Trade: An Analysis of the Efficiency Impacts of Exit Fees,* ABARE Report to the National Resource Management Division, Australian Government Department of Agriculture, Fisheries and Forestry, Canberra, June 2006.

Preliminary Finding 2.3:

Recognising the connectivity between groundwater and surface water systems is fundamental to the efficient management of water resources. In highly connected systems, failure to incorporate these linkages may reduce or counteract the benefits achieved in other areas of reform, including water trade. Undertaking further research on groundwater systems and their connectivity to surface water, and developing effective water accounting systems, are essential to address this issue.

Preliminary Finding 2.4:

Excluding groundwater extractions from the Murray-Darling Basin Cap significantly reduces its effectiveness in managing the health of the Murray-Darling river system.

Victoria agrees as a matter of principle. However, this issue can be progressed through the process to specify entitlements for both surface water and groundwater systems in advance of further research on the connectivity of these systems. Provided surface water systems and groundwater systems are capped at their sustainable yield (the definition of sustainable yield for groundwater needs to take into account surface water interactions including the needs of groundwater dependent ecosystems) and trading can occur between and within the systems, the potential impact of groundwater use on the health of river systems will be managed.

Preliminary Finding 2.5:

Return flows need to be accounted for in entitlement specifications and/or resource management policies. Adaptive management and the use of interim measures in high priority areas may be necessary.

Return flows contribute to downstream river flows. However, it is essential that states do not lock in inefficient operational practices (irrigation outfalls) which can have a detrimental impact on water quality. Accounting measures need to be developed to allow more effective use of the resource.

As mentioned in the background section above, this issue should be considered as part of the process for specifying entitlements. In this regard, Victoria refers the Commission to Chapter 5 of Victoria's *Draft Central Region Sustainable Water Strategy*, which considers the relevant issues and presents Victoria's proposed policies with respect to defining rights to water.

Preliminary Finding 2.6:

Government and utilities should enable entitlement holders to carry over water individually, with adjustment to allow for storage and evaporation losses. Appropriate charging for storage management and allocation structures will be required to address third party impacts.

Preliminary Finding 2.7:

Uniform carryover arrangements across districts are unlikely to be appropriate given different water management objectives, storage capacity, evaporation losses and potential third party impacts.

Preliminary Finding 2.8:

Trading unused seasonal allocations across districts may improve intertemporal water-use choices where carryover is not available in all districts.

Victoria will consider the introduction of carryover once experience has been gained with the new lower-reliability product. However, there are a number of issues that need to be worked through, such as the impact on large users, charging arrangements for capacity shares and the impact on the MDB cap, and until carry-over is available in Victoria, the existing restrictions on late season trades will need to be maintained. Victoria will need to consult with the irrigation community on the issues and impacts associated with introducing carryover.

Initial consultation with irrigators on the possible introduction of carryover was held at the time of developing and implementing the Government's *Our Water Our Future* irrigation reforms. Initial feedback from irrigators was that Government should concentrate on implementing the key irrigation reforms in *Our Water Our Future* such as the 'sales deal' and the unbundling of water rights and consider the issue of carryover at a later date.

Preliminary Finding 2.9:

For many storage systems, storage capacity share arrangements offer entitlement holders greater management over the storage and use of water to which they are entitled. Governments and rural water utilities should provide for storage capacity share arrangements where the benefits exceed the costs.

Preliminary Finding 2.10:

Where capacity share is not feasible, more frequent and pre-scheduled allocation announcements and/or continuous accounting would improve information to irrigators on likely water availability and, thereby, assist water use and investment decisions.

Victoria is already doing this to the extent practical. Victoria examined the option of introducing capacity sharing to individuals in Northern Victoria in 1994 (NERA report) and determined that the transaction costs associated with applying this in large complex integrated water supply systems (Goulburn-Loddon System) exceeded the benefits.

Victoria has adopted the practice of making regular seasonal allocation announcements and has increased the frequency of these during recent years, particularly after rainfall events when resources have rapidly improved, to improve investment decisions.

Preliminary Finding 3.1:

Relaxing restrictions on who can participate in water trade would improve the economically efficient use of rural water.

Victoria supports the finding that relaxing restrictions on who can participate in water trade would improve the economically efficient use of rural water. However, some restrictions are justified to manage third party impacts and to build community confidence in the water market. The NWI's 4% limit on trade provides a clear example of a restriction designed to address concerns about, and time to assess, the potential impact unlimited water trading may have on the community.

10% Limit on Water Held by Non-Water Users

The draft report highlights Victoria's 10% limit on the volume of entitlements that can be held by non-water users as a potential restriction that should be relaxed. In line with the NWI's requirements to engage water users and other stakeholders in delivering water reforms, this limit was developed following extensive consultation on the Government's Green Paper, *Securing Our Water Future*, and announced in the Government's White Paper, *Our Water Our Future*. Public consultation on the Green Paper, which involved more than 60 meetings across the State and 670 public submissions, revealed community and irrigator concern that non-water users could buy up much of the water and drive up its price. In response to this feedback, the Government established the 10% limit to reassure people that 'water barons" would not monopolise the market.

Like the NWI's 4% limit on trade, this limit on the amount of water held by non-water users will assist in building irrigator confidence in the unbundled regime and the market. It will also provide time to assess the likely impact on the community and economy of non-water users holding water entitlements.

The 10% limit may not be reached for some years, and if it ever is it will be reviewed. The 10% limit will also be reviewed under the various review processes outlined in the NWI. Under the *Water (Resource Management) Act 2005*, the Minister for Water, in consultation with relevant stakeholders, may review and revise the limit on how much water can be held by non-water users.

Preliminary Finding 3.5:

Exit fees and other unjustified limits on trade out of an irrigation district constrain trade in entitlements and impede adjustment and should be removed.

As mentioned above, the potential for access and exit fees to impede water trading can vary depending on whether these fees are linked to the water share or the delivery share. At this stage, the draft report and related findings appear only to consider exit fees linked to the water share.

In Victoria, access and exit fees will be linked to the delivery share, which means decisions to trade water can be made independently of decisions about the provision of irrigation infrastructure. While irrigators' decisions to sell will be influenced by the costs of remaining connected to the infrastructure (ie payment of annual access charges or an exit fee), they will not be forced to pay an exit fee when they sell their water. They can then make a separate decision on whether to remain connected to system that takes into account the value derived from the connection – either directly (through the use of it to deliver temporary purchases of water or for delivery of a subsequent purchase of a new entitlement) or indirectly (through the value of the property).

The report should acknowledge the different types of exit fees and the implications for water trading. In particular, the report should acknowledge that exit fees linked to the water trade and/or ongoing payments for the upkeep of infrastructure to which a customer is not connected (ie "retail tagging") are more likely to restrict trade.

Notwithstanding the future work of the ACCC in reviewing exit fees, the report could comment on the minimum requirements if governments or service providers decide to levy, or continue to levy, exit fees.

Victoria has considered the Commission's staff working paper on *Stranded Irrigation Assets*. Whilst noting that this paper is separate to the research study, Victoria has concerns about some of the issues raised in the paper. Given the paper's relevance to the research study, Victoria provides the following comments:

- the paper includes an assumption that "it is not certain that proposals under the National Water Initiative (NWI) to relax restrictions on permanent water trading will necessarily result in widespread stranded (under-utilised) irrigation assets". While it cannot be certain, it is prudent to plan for the possibility that there will be substantial trade out in some areas. The intent of trading is to allow water to move, so presumably some water will indeed move. The fact that sales historically "did not always reach restriction levels" underplays the fact that they sometimes did (eg most G-MW districts in 2005/06, and many in 2004/05 as shown in the report's Attachment 3A), and almost always did in NSW (where there was historically a limit of no net trade, and other trade restrictions as well). The history could equally suggest that substantial trades might occur out of some districts when trade impediments are removed and therefore some measures to mange the resultant transitional issues are warranted;
- the paper defines the assets likely to be stranded as service provider's engineering assets (eg weirs, channels, pipes etc). However, equally important and also costly are the management and business systems required for an infrastructure business;
- the paper assumes that "return on capital" is a large component of current infrastructure charges, thus leading to the suggestion of a better solution to pursue "cost recovery pricing and revaluing assets to better reflect their economic value at the new, lower level of use". This fails to recognise that, in Victoria at least and most likely other states, the return on existing capital is effectively zero reflecting the fact that the costs associated with constructing existing irrigation infrastructure are largely sunk (ie already paid off or funded by Government). This means that the option of writing down the assets values to manage stranded assets is not readily available in Victoria because for price setting purposes, it has already been adopted;
- the paper suggests that "increasing infrastructure charges to achieve full cost recovery is unlikely to have adverse implications for irrigators if managed appropriately" based

on the fact that the price for water on the market are substantially greater than zero, with the value being set by the difference between the cost of delivered water and the value that can be obtained from its use. This is a simplistic statement that would be strongly opposed by most irrigators and appears to suggest that irrigators make decisions to farm at the whim of market price for water and ignores the many other inputs and factors influencing irrigators' decisions; and

- of the three conventional measures to manage stranded assets – ongoing access charges, "retail tagging" of access fees and exit fee – the paper endorses ongoing payment of access fees as the "least undesirable" from an economic perspective. However, Victoria sees this option as the fundamental recognition of a service being provided for which a payment should be made.

With the staff paper potentially underestimating the likely impact of water trade and presenting a preferred alternative measure that is not readily available to most states, Victoria believes that access and exit fees, if set appropriately and subject to independent scrutiny, provide a useful tool to address community concerns about stranded assets and will assist in building irrigator and community confidence in increased water trading.

Preliminary Finding 4.2:

The management, performance and activities of water utilities have important implications for the efficient use of rural water on- and off-farm. Improving incentives to manage water resources to maximise community benefits, and removing unjustifiable impediments to their activities, are likely to improve water-use efficiency.

The discussion supporting this finding would be strengthened by highlighting the benefits of independent economic regulation in improving the management, performance and activities of water utilities. Greater transparency and independent scrutiny of how authorities deliver and fund the provision of irrigation infrastructure would greatly assist market participants in making decisions to trade water and establish agricultural activities in certain areas.

In Victoria, the Essential Services Commission has been given responsibility for regulating prices for the entire water industry, including average prices for rural water authorities. This contrasts to other states where independent regulators have no role in setting irrigation prices or light handed, advisory or dispute settling roles. As the market evolves, cross-jurisdictional issues such as the setting of exit fees and the potential for third party access will highlight the importance of independent and public scrutiny of all pricing decisions.

General Comments on Market Mechanisms to Manage Salinity

The context of the present policy is not well recognised or described. The chapter needs to consider the effectiveness or weaknesses of the existing approach which combines regulation with some market signals at both the catchment and farm levels. It then should consider what other benefits could be achieved by developing additional market mechanisms, potentially attached to either water trades or water use licences.

The chapter should also consider the extent to which different arrangements for dealing with salinity in different jurisdictions may impede or distort interstate water trading. For example, are the arrangements for dealing with salinity in the Mallee regions of Victoria, New South Wales and South Australia consistent? Or will the application of salinity levies in some regions but not others distort the water market, encouraging development in areas where the potential environmental impacts are similar but the arrangements for managing those impacts are less stringent. Victoria will continue to monitor this issue as the arrangements for interstate trade are further developed.

Another key consideration is the extent to which market mechanisms for the management of salinity could impact on the water market. The Basin Salinity Management Strategy seeks to protect the community from the adverse (salt) impacts of water trade in a manner that allows the water market to operate openly and freely without undue restrictions. Therefore, the costs and benefits, particularly those associated with the water market, should be fully considered before the introduction of any new market mechanisms to manage salinity.

General Comment on Water Registers

Victoria notes the comments in regard to “a review should include all the states and territories and engage the finance community on its views regarding the risks or otherwise of non-Torrens-based title systems and opportunities to learn from the CHESS registration system.”

Prior to committing to the design and development of its register, Victoria visited New South Wales, Queensland and South Australia and met with representatives from each state and examined systems and trading arrangements in each of these states. Victoria also considered other registration systems including CHESS and motor vehicle registration systems as well as registers of entitlements in Victorian water authorities.

Victoria also consulted with a group of financiers and the Australian Bankers' Association as well as reviewing relevant literature including the ACIL Tasman work referred to in the Commission’s report.

Victoria examined water market requirements from an efficiency perspective and considered NWI requirements in regard to water trading and water accounting.

After detailed examination, Victoria has embarked on the development of a water register that will integrate the recording of water entitlements (and interests in those entitlements such as mortgages and limited term transfers) allocations derived from those entitlements, efficient trading of entitlements and allocations and full water accounting that will enable analysis and reporting of information on entitlements, allocation, use and trade by water authority, water source and type, trading zone, delivery system and individual entitlement and allocation holders.

The water register will also record unbundled delivery shares and water use licences and their association with land. This will enable spatial representation of entitlement, allocation, trade and use.

If further work is undertaken by the Commission in the area of water registers, Victoria would appreciate being involved at an early stage to inform the Commission work underway to develop Victoria's water register. Victoria would also like to ensure that any further work in this area encompasses the full requirements associated with the development of a water register.

Victoria considers that future water registers must consider requirements associated with efficient trade of entitlements and allocations, water accounting and the relationships between unbundled elements such as water shares, delivery shares and water use licences. Recording the title to water is just one of a number of critical areas that must be evaluated in the development of water registers.