

MURRUMBIDGEE IRRIGATION

A.C.N. 084 943 037



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Your

Committee Secretary
Senate Rural and Regional Affairs and Transport Committee,
Department of the Senate,
Parliament House,
Canberra, ACT, 2600

Dear Sir/Madam,

I am pleased to attach for consideration Murrumbidgee Irrigations' submission to the Senate Rural and Regional Affairs and Transport Committee enquiry into Water Policy Initiatives.

I apologise for our delay in making this submission, but I understand that John Howe, the Company's Water Policy Manager, has already spoken to your staff, and arranged for a postponement of the date for submissions.

I trust that our submission is useful. Please feel free to contact me if you need any further clarification or information.

Yours sincerely

A handwritten signature in black ink, appearing to read "Brett Tucker", followed by a period.

Brett Tucker,
Chief Executive

23 December 2005

SUBMISSION TO THE SENATE RURAL AND REGIONAL AFFAIRS
AND TRANSPORT REFERENCES COMMITTEE INQUIRY INTO
WATER POLICY INITIATIVES

Murrumbidgee Irrigation

19 December 2005

OVERVIEW

General

The Commonwealth needs to continue its role as 'honest broker' during the critical early stages of implementing the NWI reform program for water property titles.

- Greater consultation by NWC Commissioners and officials with practitioners before making decisions. Expediency cannot be an excuse for shoddy decisions that impose unnecessary costs on investors and rural communities
- The differing circumstances of States (and Valleys) must be recognised and respected. State interests must be balanced and 'one-size-fits all' solutions need to be avoided, if we are to protect current private water access property rights.

Water property titles

There is a need to continually reflect NWI IGA values when dealing with property and delivery rights, including recognition that those values can be affected by changes to the Governance framework of property rights (eg, trade, delivery, and use rules).

- There must be greater specification of delivery rights (in terms of timing, flow rates, and known constraints to delivery).
 - ⇒ Environmental and other public benefit outputs should be better specified to enable accountability of environment and public benefit managers, and to enable trading solutions among the various stakeholders.
- The access rights to water should be viewed as a private right that needs to be respected and protected at all times.
 - ⇒ Access rights should not be subject to administrative or legislative change without independent assessment of the "increased knowledge".
- The property rights and governance of those rights must be targeted to individual rights and responsibilities. Governance of trade is a particular threat in this respect.
 - ⇒ Promote 'tagging' as the basis for trade, and eliminate the ability to extinguish rights in one jurisdiction and create new rights in another. The buyer – via the relevant service provider – simply gets the product that existed prior to sale.
 - ⇒ Confine the use of exchange rates to relative caps (as a % of entitlement) and environmental flows (as a % of entitlement) to ensure environmental water stays within the Valley of origin.
 - ⇒ Improve information about the various entitlement products, and access constraints throughout the basin.
- Governments should not be able to pass all the costs of reform to private investors (while retaining the benefits).
 - ⇒ Cost shares implied by the NWI risk sharing framework should be reflected in pricing policies by government agencies.
- The Commonwealth should strive to have States reinvigorate the public sector reform components of the COAG agenda.

Protecting rivers and aquifers

- Environmental needs and demands should be better specified in water sharing plans, catchment management plans, or their equivalent.
- Environment managers need to be appointed for each catchment, and processes formulated to enable coordinated activity by environment managers to deliver basin objectives.
- If public service providers in rural water supply, including water resource management, water delivery, and environmental services cannot deliver gains the public sector reform agenda should be re-invigorated including to the extent of giving private agencies the opportunity to do better.
- Support for projects that seek to build on the above recommendations and governance framework to enable cooperative action between catchment managers, irrigators, irrigation companies, and environmental stakeholders to deliver innovative environmental services. For example, Murrumbidgee Irrigation has a project involving these elements before the AWF for a manageable section of the Murrumbidgee.

Farming innovation

- The Commonwealth should encourage all opportunities for education, research and development throughout the value adding chain for regional water distribution and use.

Climate change

- Urban dwellers should be prepared to meet responsibilities insofar as they impose the costs of climate change on rural dwellers and water users.
- Reductions in rural water supply should be shared on a pro-rata basis according to current shares in the river system (reflected in water sharing plans in NSW).
- Opportunities for pro-active investments to deliver win-win outcomes for irrigators and the riverine environment, such as cloud seeding, should be encouraged.

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1. Introduction

Murrumbidgee Irrigation was active in inviting Federal intervention in rural water supply because we saw the need for an honest broker. The benefits of that role have clearly been demonstrated in the formulation of the NWI¹, which is balanced and provides a clear map for all stakeholders. Highlights include:

- The exchange of clear and secure property rights and mechanisms for water recovery
- Clear assignment of risks of changes to those property rights
- Comprehensive program of governance (including trade, delivery pricing, and accounting) for those property rights

Unfortunately, the devil always lay in the detail of implementation, and it is here that the need for balance is most critical. Key risks areas for the Murrumbidgee Valley are:

- Activities that undermine the strength of private property rights and delivery rights through stealth (eg, changes due to 'increased knowledge' from modelled outcomes).
- 'One size fits all' approaches to governance of water access rights and trade – without due attention to ensuring a level playing field.
- A focus of reform and restructure on private sector stakeholders in rural water supply without corresponding reform of public sector stakeholders. For example, the threat of inefficient or exploitative delivery pricing from Bulk Water suppliers and river managers.

In many cases, resolution of these issues has often been handed back to the bureaucrats that helped create the problems in the first place.

The Commonwealth needs to continue its role as 'honest broker' during the critical early stages of implementing the NWI reform program for water property titles. In particular there is a need to ensure:

- There is adequate consultation by NWC Commissioners and officials with practitioners before making decisions. Expediency cannot be an excuse for shoddy decisions that impose unnecessary costs on investors and rural communities
- The differing circumstances of States (and Valleys) must be recognised and respected. State interests must be balanced and 'one-size-fits all' solutions need to be avoided, if we are to protect current private water access property rights.

2. The Development of Water Property Titles

2.1 *Specification of property rights*

The current NWI formulation of water access property rights is excellent in principle, but the implementation contains risks for stakeholders, especially for holders of existing access rights. Firstly, there remains a lack of specification in key rights areas, including delivery issues, the environment, and other public uses/benefits. Second, the legislation is still inconsistent or inadequate in some areas. For instance, in NSW, towns can increase entitlement at the expense of existing entitlement holders. But purchase of water to enable development should

¹ The 'Inter-Governmental Agreement on a National Water Initiative', June 2004.

be the same as purchase of land if private rights are to be respected. Third, there is potential to misuse “improved” modelling or increased knowledge to reduce effective private access rights. Finally, the Governance of trade and use continues to ignore individual rights and responsibilities in critical areas. For instance, targeting Valley caps – rather than incentives for individual responsibility – enables acquisition of water at the expense of third parties (including irrigators and the environment).

- There must be greater specification of delivery rights (in terms of timing, flow rates, and known constraints to delivery).
- Environmental uses and other public benefit uses should be better specified to enable accountability of environment and public benefit managers, and to enable trading solutions among the various stakeholders.
- The access rights to water should be viewed as a private right that needs to be respected and protected at all times.
 - ⇒ Access rights should not be subject to administrative or legislative change without independent assessment of the “increased knowledge”.
- Property rights and governance of those rights must be targeted to individual rights and responsibilities. Governance of trade is a particular threat in this respect (see next section).

2.2 Property rights and trade of entitlement and allocation

Murrumbidgee Irrigation supports water trade, and our annual trade volume regularly exceeds 10% of our entitlement. But, we know the pitfalls, especially the potential for poorly or ungoverned trade to erode the effective entitlements or allocations of stakeholders not involved in the trades – and to harm water buyers/investors. Also, solutions for trade that may be easy for bureaucrats are likely to be disastrous for producers. We need to be careful to avoid single product and other ‘one-size-fits all’ solutions. These have not worked in other markets, and are not likely to be any more efficient for water, which varies according to reliability, quality, timing of flows, and deliverability. Increasing returns to water from trade requires trade to be built on the true characteristics of the product – not by pretending that it is homogenous.

The answer for trade lies in leaving products as they currently are and providing better information about them. Full descriptions of the right (entitlement, allocation, deliverability, etc), rules for use and trade, and other responsibilities should be available at the point from which the right is defined (eg, DNR and Murrumbidgee Irrigation for Murrumbidgee irrigation entitlements). Better information is the best protection for the buyer.

Once this is achieved, all that is required for the good governance of trade is to make sure that the playing field is level. That is, trade should not be able to change the nature of the product and tilt the playing field with respect to effective access and use (either positive or negative). All that is required is mechanisms to ensure that the seller cannot sell a product that is better or worse than the existing product in terms of access. Deliverability constraints for the purchaser should also be well defined.

The current approach of complicated exchange rates, involving the extinguishment and creation of new entitlements is counter-productive, and likely to impede rather than promote trade. The only time exchange rates are needed is for trade between jurisdictions with different basin caps on diversions relative to entitlement (and reliability). This is to ensure the retention

of environmental flows within valley of origin, and maintenance of user rights. In these cases the relative caps (as a percentage of entitlement) are effective exchange rates, and no further work is required.

In summary, our recommendations for governance of trade are:

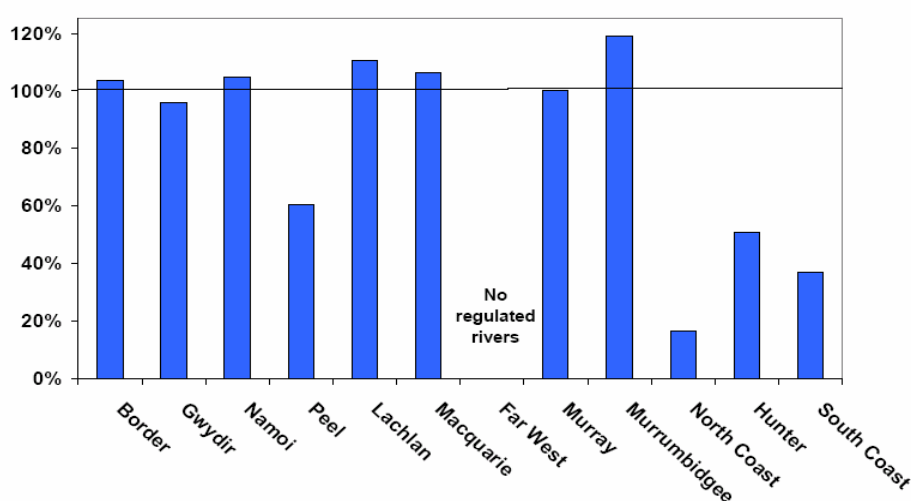
- Promote 'tagging' as the basis for trade, and eliminate the ability to extinguish rights in one jurisdiction and create new rights in another. The buyer – via the relevant service provider – simply gets the product that existed prior to sale.
- Confine the use of exchange rates to relative caps (as a % of entitlement) and environmental flows (as a % of entitlement) to ensure environmental water and access rights of other users stay within the Valley of origin.
- Improve information about the various entitlement products, and access constraints throughout the basin.

2.3 Pricing issues in delivery of bulk water, and property rights

The value of water access entitlement should reflect the asset and uses to which it is put – not inefficiencies and inequities in water delivery pricing. In other words, Murrumbidgee Irrigation supports capping and trade in water access entitlement or allocation as the means to incorporate scarcity pricing - not through artificially inflated delivery prices.

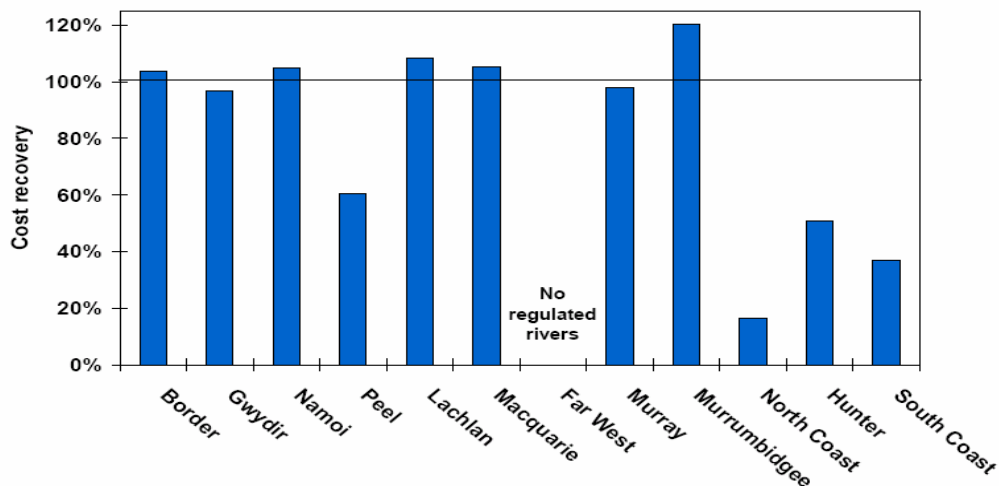
In the Murrumbidgee Valley, the State Water Corporation (SWC) delivers bulk water and the Department of Natural Resources (DNR) provides water resource management (WRM) services. SWC and DNR seek price determinations from the Independent Pricing and Regulatory Tribunal (IPART) to cover efficient costs for 3 years. These prices cover efficient operating expenditure, externalities, and capital costs (allowing for a WACC). Cost recovery is therefore 'upper bound' (subject to argument about extent of externality pricing). IPART determined that the Murrumbidgee Valley is above full cost recovery in its determination of 2005-06 (see following charts drawn from the IPART's 2005-06 Determination²).

Figure 3.1 State Water regulated rivers estimated cost recovery levels 2004/05



² 'State Water Corporation and Water Administration Ministerial Corporation, Bulk Water Prices for 2005-06, IPART Reports Nos 8 and 9, 2005.

Figure 3.2 DIPNR regulated rivers estimated cost recovery levels 2004/05



SWC and DNR are now claiming significant increases in costs (that, if they get their way, would be met 100% by 'water users') due to costs arising from the NWI reform program. Yet, the level of servicing and strength of property rights seem little different from those of the last price determination period. Murrumbidgee Irrigation is concerned that this is just a 'back door' method to reduce the effectiveness of water access entitlements. It should not be supported. The NWI aims for cost recovery of efficient service delivery, not methods of raising revenue for inefficiencies.

- Governments should not be able to pass all the costs of reform to private investors (while retaining the benefits). In particular:
 - ⇒ The shared responsibilities implied by the NWI risk sharing framework should be reflected in cost sharing and pricing policies by government agencies.

This highlights the need to re-invigorate the public sector reform components of the original COAG agenda for water reform spelt out in 1994. The objective being to increase efficiency to lower costs and/or improve the quality of services. The latter is particularly relevant for activities to protect rivers and aquifers (Section 3).

- The Commonwealth should strive to have States reinvigorate the public sector reform components of the COAG agenda.

At the same time, there is a need to recognise the legitimate differences in objectives and strategies for catchment management between States and Valleys. Murrumbidgee Irrigation does not support Commonwealth interventions that try to bludgeon States and jurisdictions into adopting 'one-size-fits-all' water management solutions.

The objectives of improving efficiency and enhancing the environment are common to all jurisdictions. But strategies and activities may vary slightly from Valley to Valley, and State to State. For example, the Murrumbidgee Valley emphasises the importance of confining annual diversions to the climatically adjusted cap. That is, less water is diverted in wetter/colder years than in hotter/drier years. That strategy is not reflected in many other jurisdictions. But, either approach is legitimate – and should be recognised as such – as long trade maintains the same playing fields and relevant State and Federal laws are being complied with.

- The differing circumstances of States (and Valleys) must be recognised and respected, and 'one-size-fits all' solutions need to be avoided.

3. Methods of protecting rivers and aquifers

3.1 Specify environmental needs and demands in rivers

The need for specific purpose solutions is highlighted by the variable demands for environmental outputs between river reaches, and Valleys. Unfortunately, these demands are not well specified. The establishment of clear environmental demands for water use is a necessary condition for protecting and enhancing the condition of our rivers and aquifers (see also section 2). This is required to, make our environment managers accountable, to help identify priorities and action plans, to provide the supply and demand conditions for trade between users and the environment, and – finally – to operationalise environmental water management.

Each catchment should also have a specific body responsible for delivering environmental demands for water (although the demands arise from many different agencies). Each catchment environmental manager would then be well placed to coordinate Valley services and integrate activities with other catchment environment managers to deliver basin wide objectives.

If the success of achieving the objectives of water use were measured by diversions alone, it is unlikely that our farms and industries would be world leaders in efficiency. The lines of accountability between river managers, water service providers, private irrigation districts and farmers is essential for cost effective achievement of economic and social benefits. Unless we have similar links between resource managers, water service providers, irrigation districts and the environment, the latter will be condemned to receiving a low quality product.

- Environmental needs and demands should be better specified in water sharing plans, catchment management plans, or their equivalent.
- Environment managers need to be appointed for each catchment, and processes formulated to enable coordinated activity by environment managers to deliver basin objectives.

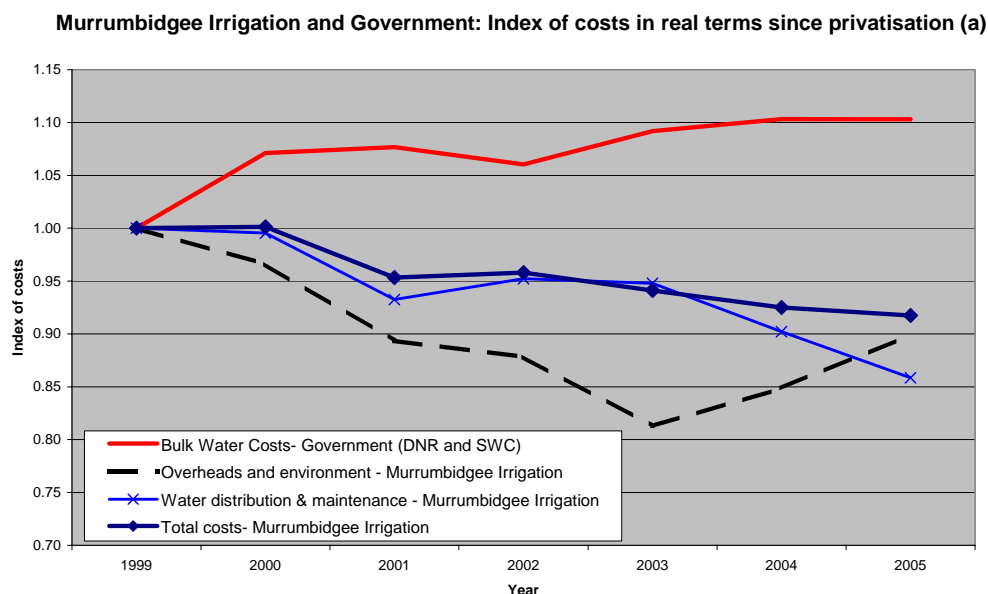
3.2 The need for public as well as private restructuring and reform

At present the rivers and aquifers are managed by Government institutions. But there has been very little mobilisation of the Government agencies to pro-actively identify and formulate strategies to improve service efficiency, generate water savings, and improve water management to achieve multiple targets. Often the rhetoric suggests that our public sector agencies are at maximum achievable efficiency, there are no water savings, and the only improvements to water management that can be made simply involve redistribution of resources (either water, finance, or both). This partly explains a focus on off-river outcomes and restructuring rather than at river and distribution networks.

This should not ring true for anyone with public sector experience. Critical water resource managers and river managers should not be allowed to abrogate responsibilities in such a manner. Otherwise, the potential benefits of on-farm reforms will be unwound or very limited

because of inadequate efficiency and waste on-river. For example, productivity gains for water use on farm could be 'clawed back' by the river to maintain downstream flows. If that happens, the efficiency of water management in river will set the benchmark for all water users.

The following chart shows the efficiency gains made by Murrumbidgee Irrigation in terms of cost trends since the Company was privatised relative to the government service providers of bulk water (DNR and SWC). In total the Company has improved efficiency relative to the Government agencies by almost 30% in 6 years, without taking account of quality improvements in service provision (which have also been significant). Similar gains on river would deliver substantial benefits to the environment and society.



(a) Costs in real terms are nominal annual costs deflated by the all items CPI.

In this light, the nation may yet rue the lack of more fundamental public sector reform of rural water delivery. To date, apart from privatisation of ICs in NSW and SA and corporatisation of SWC in NSW, there has been very little reform of public sector institutions and practices throughout the basin.

- If public service providers in rural water supply, including water resource management, water delivery, and environmental services cannot deliver efficiencies the public sector reform agenda should be re-invigorated including to the extent of giving private agencies the opportunity to do better.
- Murrumbidgee Irrigation has an important project before the AWF that seeks to build on cooperative action between catchment managers, irrigators, irrigation companies, and environmental stakeholders to deliver innovative environmental services for a manageable section of the Murrumbidgee.

4. Farming innovation

Farming innovations are proceeding apace – with observed on-farm water efficiency gains of up to 2% per year over the last few decades. It is quite difficult to discern the impacts of water reforms on water use efficiency on farm. However, it is likely that incentives to reduce losses have had a marked effect, and production has held up, perhaps more than expected during the

recent drought. Farming innovation is likely to continue to generate significant water use efficiency gains into the future – if only because the relative scarcity of water resources is likely to stay with us even after the drought and agriculture must reduce costs to survive declining terms of trade.

But as noted in section 3.2 we need these sorts of efficiency gains to be delivered in the areas of environmental management and river systems if the on-farm benefits are to be sustained.

Unfortunately, Government support for research and development in very critical areas where on-farm efficiency gains would deliver greatest savings – such as developing more efficient rice varieties - has fallen in recent years. Government support for regional education institutions that could be focussed on addressing water management issues – from catchment to farm – has also been very limited.

- The Commonwealth should encourage all opportunities for education, research and development throughout the value adding chain for regional water distribution and use.

5. Monitoring drought and predicting farm water demand

Agronomists can provide quite accurate data about farm water demands for a range of reasonable climatic conditions prior to the cropping or production decision. The difference will provide an estimate of the annual requirement for irrigation water for a given level of cropping (or production).

The major unknown remains future climate. In these circumstances, any improvement to extend the range and accuracy of weather forecasting, reductions in plant growing times, or development of plants that are more capable of resisting climatic variations will deliver significant efficiency gains.

6. Implications of predicted changes in patterns of precipitation and temperature

The main threat for water users in respect of climate change is the view that water users should meet all of the costs of such change (in terms of reduced access). The current principles applied by society to deficits in water supply should be applied to the costs of climate change. The cost drivers/beneficiaries should pay. On this basis, urban dwellers would likely need to meet a substantial part of the costs of climate change as they have clearly been the main drivers of such change (eg, in terms of net greenhouse gas emissions, and production of pollutants), and are likely to be significant beneficiaries of mitigation strategies. An appropriate share of the resources raised could be directed towards mitigating the impacts on third parties in rural water basins.

- Urban dwellers should be prepared to meet responsibilities insofar as they impose the costs of climate change on rural dwellers and water users.

Beyond that, if the projected climate change reduces the availability of water in rivers it seems fair that all current entitlement holders should share in the reduction.

- Reductions in rural water supply should be shared on a pro-rata basis according to current shares in the river system (reflected in water sharing plans in NSW).

However, there are some significant opportunities to deliver benefits for both water users and the environment. Early results in the Snowy suggest that cloud seeding can provide significant additional resources at important times. If managed carefully this could deliver benefits to users (especially in terms of reliability), and to the environment (in terms of flow volumes).

- Opportunities for pro-active investments to deliver win-win outcomes for irrigators and the riverine environment, such as cloud seeding, should be encouraged.