

Committee Secretary  
Senate Standing Committee on Rural Affairs and Transport  
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### **Management of the Murray-Darling Basin**

I welcome the opportunity to submit a response to the Senate Inquiry into the Management of the Murray-Darling Basin.

I live in a country town with a population of 3300 in the north central Victoria in an area dominated by irrigated agriculture.

The future of the Murray- Darling Basin (MDB) is crucial to the prosperity of Australia. We now have the opportunity to relook at how we can best utilise the vast potential of the MDB without further plundering its natural resources and improving the environmental health where ever possible.

Matters that must be considered include the following:

#### *Expectations of rural people*

It is unreasonable to expect that rural communities will have the same standard of services at at the same cost as in major cities and larger regional centres.

#### *Communication*

The proposed national broadband network should be rolled out to every rural town with a population of more than 2000 prior to capital cities to give rural communities an advantage.

#### *Population*

We need an Australia wide consensus on future population levels and a broad undertaking on where they may live.

#### *Peak Oil*

We need to appreciate the implications of peak oil and how and in what time frames it will impact on most aspect of our lives including transport, energy use and community life.

#### *Climate Change and Carbon Sequestration*

Climate changes have already had an impact on water resource management and further consideration must be given to the long term viability of grazing and cropping across the MBDA.

It is interesting to note that 75% of Australia land mass has historically received less than 400mm of rain annually. In other words approximately 5,750,000 square kilometres receives less than 400 mm per year- 2,500,000 square kilometres of this area is cropped or grazed with

varying degrees of financial success and a whole lot of environmental damage. For the vast majority of the time this area is not viable and is financially supported by government.

There must be a better way to manage this vast area of 2,500,000 square kilometres.

World awareness of environmental issues is gathering pace at a tremendous rate and I suggest now is the time to re-think the way in which we manage more than 30% of this continent. We should take action now to capitalise on carbon trading and commence rehabilitation of and returning this scarred and fragile land to a natural or near nature state and make it available for carbon sequestration and haven for our animals and plants.

The rate of carbon sequestration of this land could very conservatively approach 250 tonnes/square kilometre/year in perpetuity and a \$30/tonne relates to revenue approaching \$20 billion /year.

This massive rehabilitation project will naturally create millions of tonnes of unwanted plants (weeds) that will need to be harnessed and where possible eliminated to allow the landscape to revert to a near natural state. These unwanted plants present an opportunity for biofuel production.

### *Rural City/Town Planning*

If there in fact there is an increase in rural population we must not allow the urban sprawl to be relocated to regional and subregional centres. Every significant community should have plan that limits urban sprawl and has a range of urban option that enhance living experiences, are low energy and are complement with suitable service supported by appropriate transport systems.

### *Water Resource Management*

#### ***1. Adequacy of proposed Sustainable Diversion Limits (SDLs)***

The intent of the Water Act 2007 (Act) was correct in 2007 and the need has been magnified following experiences since that date. The benefits of planning for the long term, rather than for short term expediency, needs to be promoted.

Analysis released by the Murray-Darling Basin Authority's (MDBA) Guide to the Draft Basin Plan (Guide) made it clear that "The real possibility of environmental failure now threatens the long-term economic and social viability of many industries...".

The principle aim of the Basin Plan is to return water extraction in the Basin to environmentally sustainable levels. The purpose for this is to meet our international obligations, protect and restore ecological values and ecosystem services, and improve water security for all users. To meet this aim the Act clearly and deliberately establishes a process that requires the assessment of what is environmentally sustainable extraction to be based on scientific analysis. It does not allow the decision of what is environmentally sustainable extraction to be based on a balancing out of environmental, social and economic factors. If such non-scientific considerations were to be injected into the assessment process, the resulting determination would not establish 'environmentally sustainable extraction' levels, it would instead simply justify adoption of current extraction levels - that are clearly unsustainable and that prompted passage of legislation seeking to address the Basin's long-term survival in the first place.

Reliance on scientific data alone in determining what environmentally sustainable extraction is- does not mean that economic and social factors are not important or should not be considered – indeed the Act requires that they are considered. The key issue is the point in the process where non-scientific considerations should be taken into account. Rather than being part of the decision of what is environmentally sustainable extraction, economic and social considerations are properly part of the decision of how best to deliver that environmentally sustainable extraction outcome and what transitional assistance is needed to achieve this outcome.

SDLs must be set at an ‘environmentally sustainable level of take. These levels must not compromise key ecosystem functions, key environmental assets, the productive base of the water resource, and key environmental outcomes including ecosystem function, biodiversity, water quality and water resource health.

The Act requires the MDBA and the Minister to meet the environmental requirements of the Act. They cannot favour social and economic considerations if to do so would mean they are not meeting the environmental requirements of the Act. However, provided the environmental requirements are met, they must consider how to meet them in a way that optimises social, economic and environmental outcomes. This does not mean that all three are balanced against each other right from the start; it means that in meeting the environmental outcomes in the Act, they must do it in a way that minimises negative social and economic impacts.

A further concern in relation to social and economic impacts is the apparent assumption by the MDBA and others that the only social and economic impacts to be considered from returning the Basin to environmentally sustainable levels are negative impacts. This includes optimising the positive social and economic impacts that will result from achieving environmentally sustainable extraction levels and the resulting environmental benefits and increased water security. These positive social and economic impacts must therefore be included in any decision-making around options for meeting the environmental requirements of the Act.

The following evidence indicates that the 3000 – 4000GL will not meet the environmental requirements of the Act:

- a) The Guide states that the lower range will leave five regions in ‘poor’ condition. Catchments with a ‘poor’ rating were judged to be in a state where the ecosystem functions are at significant risk of being compromised.
- b) The Guide states that the predicted outcomes at the 3000GL level have a high dependence on a long-term return to wetter climatic conditions. This statement and the MDBAs reliance on it does not appear to accord with the best available climate science
- c) 3000-4000GL is unlikely to meet the environmental requirements of the international agreements.
- d) It is clear 3000GL is likely to lead to a slow decline in waterbird numbers, will not meet the threshold for native fish breeding, and is unlikely to meet the target of 75% of red gum communities maintained or restored. The assertion in the Guide that 3000GL is within the range that meets the environmental requirements of the Act is therefore contradicted by the MDBA’s own analysis. Outcomes for the 3500GL and 4000GL scenarios are improved but will still not meet environmental requirements in all areas.

Therefore, the MDBA’s assertions in the Guide that the lower band *will* meet the environmental requirements of the Act this does not appear to be supported by the MDBA’s own analysis. Certainly the 3000GL scenario appears in no way to meet the environmental requirements of the Act.

In addition it is understood that MDBA justified not setting SDLs above 4000GL on one social and economic study. The study was based on interviews with entitlement holders – posing questions such as whether negative social and economic impacts would be too great if their allocations were reduced by 20%, 40% or 60%. These questions do not accord with the way in which the Basin Plan is to be implemented (for example no individual allocations will actually be reduced), and therefore is an unsound basis for making the key decision in the development of the Basin Plan.

The economic and social issues have been highlighted by many communities as requiring further investigation, and we agree. However, I reiterate that the environment should take precedence and social and economic consequences should be managed with a transition program and, if necessary, staged implementation of the return of water to the environment. There has been much comment about the negative impacts on the economy and social well being of the Basin, but this needs to be balanced by the considerable positive benefits, particularly long term. For example, the full economic benefit of eco system services provided by the 18 Ramsar Sites healthy rivers is believed to be in excess of \$2.1bn.

## ***2. Achieving suitable SDLs***

For the environment to acquire the minimum of 3000 to 4000GL entitlement, all options should be considered, including buy back from willing sellers, infrastructure upgrades and on farm efficiency incentives. An integrated approach, on a regional basis, is needed to get the best outcome in obtaining water by these three options. There may be value in having longer term carryover options for environmental entitlements. In the buyback of water, the Governments should target low productivity areas and be prepared to pay a premium for water from these areas. In the Victorian irrigation areas the infrastructure access fees, associated with water purchased for the environment, should be amortized and bought out by a lump sum payment to the Water Authority and water-use licence extinguished with appropriate compensation to landowners. Where complete channel systems can be eliminated part of the amortized infrastructure access fee should be made available to relevant landowners as an incentive to change farming practises. Piped stock and domestic systems should be installed as required to maximise opportunities on land previously irrigated.

## ***3. Better use of water***

As part of the adjustment/transition programs there should be research and development projects focused on increasing productivity - aiming for twice the production using half the water on half the land. A rapid rate of adjustment to agriculture throughout the Basin is required to deliver the water to the environment before the rivers are irrecoverably damaged. Therefore substantial Government funding for agricultural research and extension services is required to facilitate the changes needed to meet the Basin timetable.

With regard to water resource management across the MDB I urge the Standing Committee request the MDBA to:

- Develop scenarios assessing the environmental outcomes of returning between 4,500 and 7,600 GL/y, and the social and economic costs, benefits and opportunities of each scenario.
- Assess the benefits and opportunities for other government investment in the Basin to offset any negative economic impacts from reducing the over-use of water in the MDB in the range of 4000-7600GL/y.

- Model and publicly release the economic and social costs of environmental decline resulting from current levels of water-extraction from the Murray-Darling Basin.
- Communicate the benefits and opportunities of water reform for the environment, economy and the Australian people.
- Strengthen the way that climate change is incorporated into SDLs calculations by increasing the 3% reduction to adequately manage risks of reduced water availability arising from climate change.
- Articulate the need for a complementary suite of Basin-wide management measures to optimize the benefits of additional water availability and adequately protect the ecological values of high conservation value fresh-water areas, especially the 16 Ramsar wetlands in the Murray-Darling Basin.
- Promote and advocate for the reconfiguration of irrigated agriculture by removing irrigation from land-that for environmental reasons- should never have been irrigated and integrating buy back of entitlement from willing sellers, infrastructure upgrades and on farm water efficiency incentive programs.
- Actively support increasing dramatically funding levels for research and development projects focused on increasing productivity - aiming for twice the production using half the water on half the land.

I look forward to deliberations on this most important matter

Yours sincerely

Terry Court