

Inquiry into the Impact of the Murray Darling Basin Plan in Regional Australia.

Submission by Peter Millington, Water Resources/River Basin Management Consultant;

Director General, NSW Department of Water Resources (1987 to 1995),

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Summary.

1. Background Issues relating to Socio-Economic Impacts.

- The TOR for the enquiry specifically relate to the socio-economic impacts of the MDBA's 'Guide to the Proposed Basin Plan'. They do not appear to allow the Enquiry to search down and into the planning activities to gauge whether the resulting, severe levels of socio-economic impacts are based on reasonable hydrologic or scientific assumptions.
- That is, the Committee cannot scrutinise how the Authority has used the hydrology and the related simulation models, and the available science, to make assumptions and reach conclusions, yet the regional communities argue that the Authority's process is deeply flawed and without scrutiny,
- The Commonwealth Water Act is framed in such a way that it prevents 'integrated river basin management' in a way that is consistent with international 'best practice'. The Act requires the MDBA to first determine the volume of water required to maintain and restore environmental assets, using best available science and the principles of ecologically sustainable development, and then subsequently (*that is, with whatever water is left*) the Authority should address the optimisation of other environmental issues and social and economic outcomes.
- This approach doesn't address the varying long term national and state objectives and goals across all disciplines and sector areas, and does not allow the seeking of some agreed 'balancing point' between environmental, social and economic outcomes for the basin, as exists in internationally recognised 'best practice' approaches to integrated river basin planning,
- Virtually all countries now follow approaches that seek to determine an 'agreed balance' between environmental, social and economic outcomes – not give a 'first up' priority to any one of these - and to do this through open and transparent participation and consultation with all basin stakeholders, and to consider short, medium and long term issues and scenarios,
- The present basin plan is really producing an '**environmental watering plan**' with the socio-economic impacts just added on at the end
- There are major deficiencies in how MDBA has gone about the planning. Basic to any 'best practice' basin planning approach, is the need for wide spread 'participation and consultation' with the widest spread of stakeholders – this has not occurred; MDBA has not undertaken any meaningful basin-wide consultation during the formulation of the plan,

- Communities have not had any chance to see, discuss and debate the hydrology assumptions and how the various models have been used to determine ‘sustainable yields’ for each valley, how the science has been used to conclude that the basin is in poor health, and why all this means that ‘3000 GLs are the minimum extra water needed to satisfy the environmental needs’,
- There should have been workshops in the upper and lower parts of each of the 18 or so valleys/sub-basins in the MDB and probably two or so rounds of these workshops, to properly explain and then allow discussion, scrutiny and debate about all these underlying assumptions and data.

To summarise, the Committee appears to have no option but to accept and then consider regional socio-economic impacts that will occur as a result of:

- An inappropriate piece of legislation that expressly prevents integrated river basin planning, nor a ‘balanced approach’, in accord with widely accepted ‘best practice’ concepts,
- A planning process that has not opened up the science and hydrology to scrutiny and public discussion and debate, and that often appears at odds with what the regional communities see on the ground, as improvements in land and water management,
- A complete lack of meaningful consultation and participation between MDBA and the communities up and down the 18 or so valleys within the MDB – all communities must first understand the ‘robustness’ or otherwise, of the science and the hydrology to be able to then judge the relativity of the socio-economic impacts; why debate these s-e impact levels if in fact the underlying science just can’t be justified?
- A lack of consideration of the long term socio-economic objectives for Australia and the basin, meaning that the present short term decisions being considered will almost certainly be at odds with the long term needs and strategic directions.
- A lack of consideration of food security and food and fibre productivity issues over the short, medium and long term - it is now said by some economists that Australia now consumes as much as 70% of its food production (previously thought to be more like 35%) so what long term impacts if we take away say, 35% of water from production, during a time when we need to be increasing food productivity.

2. Mitigating the Adverse Impacts,

On the basis that the environmental watering needs defined in the plan cannot be questioned (***really a major conceptual problem that impacts on the integrity of the plan***), the medium and long term impact issues must be addressed first by developing ‘***strategic development, business and people management plans***’ for each of the 18 or so valleys in the MDB, (short or immediate term responses are not covered here; local government, industry and social welfare groups should be advising on these),

These ***strategic plans*** should have many sub-plans or sector plans that feed into the overall perspective. There will be, as an example;

- Population trends and possible expansion, industry and regional growth options, land use and agriculture perspectives (see comment in the report below on the ‘McGovern conclusions’),
- ‘Water infrastructure, efficiency, research, new technology and long term needs’ plans (10, 25, and 50 year perspectives) – these respond to the medium and long term population/development trends by defining where water needs may come from, ,
- Food and fibre trends, requirements and obligations – local, regional, state and national present and future needs, world needs in an increasingly affluent society and Australia’s role in meeting these expanding needs,

- Transport, health, business, social assistance and other services perspectives – how to manage the needs of changing regions and adjust to likely changes in the ‘shape and content’ of regional economies
- People strategies to better equip communities for a different future.

Once these ‘regional/valley strategic plans are accepted there must be long term financial support from commonwealth/State governments to implement them, under the oversight of state agencies, regional councils and local stakeholders.

This strategic planning must be completed before any large scale water re-allocations occur in practice. In NSW, the present water sharing plans are up for review in about 2014, whilst in Victoria it is 2019.

Implementing these long term ‘strategic plans’ on a valley by valley basis will be difficult and costly but essential if up to 40% of a basic ‘economic input’ (water) is removed from regional business and economic profiles. National and State Treasuries need to understand this, and should want to question whether all this comes from ‘balanced’ integrated river basin planning supported by a robust cost-benefit analysis – large amounts of tax payers funds are involved here,

House Standing Committee on Regional Australia.

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Who am I - Peter Millington;

- Previously **Director General, NSW Department of Water Resources** (1987 to 1995), and **Commissioner on the Murray Darling Basin Commission** (1987 to 1996); involved in water resources/river basin management at the highest level for the last 25 years,
- Since 1996, **river basin/water resources/natural resources management consultant** to the World Bank, Asian Development bank and many international aid agencies working on major water resources/river basin planning and management projects in twelve countries.

The Scope of this Enquiry

The TOR for the enquiry specifically relate to the socio-economic impacts of the MDBA's 'Guide to the Proposed Basin Plan'. They do not appear to allow the Enquiry to search down and into the planning activities to gauge whether the resulting, severe levels of socio-economic impacts are based on reasonable hydrologic or scientific assumptions.

That is, there can be no scrutiny as to how the Authority has used the hydrology and the related simulation models, and the available science, to make assumptions and reach conclusions as to the 'health' of the various catchments/sub-basins within the MDB, and to what level of water 'take back' is necessary to overcome these perceived problems, and to meet the international obligations as referred to in the Water Act. Nor is scrutiny allowed of the Authority's approach, or lack of it, to bring medium and long term planning perspectives (20 to 50 year planning horizons) into the planning considerations, and the related issues of desirable food production and food security levels.

These, and many others, are fundamental planning issues in any 'integrated river basin planning' exercise and any enquiry should be able to consider all these related issues as it is not possible to properly assess the 'balance' of the planning outcomes, or the 'pluses and minuses' associated with the socio-economic impacts if the variance and 'strength' of the underpinning science and other key technical aspects is not transparent and under scrutiny.

It is understood that this enquiry must 'live' within its TOR but it is important to the scope of my submission to first record the basic underlying problems with this whole MDBA planning exercise and the Water Act that empowers it, as this creates the 'playing field' within which the basin plan has had to exist .

The Underlying Issues.

The Commonwealth Water Act is framed in such a way that it prevents 'integrated river basin management' in a way that is consistent with international 'best practice'. The Act requires the MDBA to first determine the volume of water required to maintain and restore environmental assets, using best available science and the principles of ecologically sustainable development, and then subsequently (*that is, with whatever water is left*) the Authority should address the optimisation of environmental, social and economic outcomes. (*Note that as the key environmental assets are already satisfied by the first allocation of water in the basin plan, this subsequent optimisation is all about allocating remaining water between other 'second level' environmental issues and the social and economic uses and users of water*).

Obviously, this approach doesn't address the varying long term national and state objectives and goals across all disciplines and sector areas, and does not allow the seeking of some agreed

'balancing point' between environmental, social and economic outcomes for the basin; yet this is the basis for internationally recognised 'best practice' approaches to integrated river basin planning – seeking a balance that meets a countries long term objectives and goals, through a very broad participative and consultative approach.

Virtually all countries now follow approaches that seek to determine an 'agreed balance' between environmental, social and economic outcomes – not give a 'first up' priority to any one of these - and to do this through open and transparent participation and consultation with all basin stakeholders, and to consider short, medium and long term issues and scenarios – that is, none of these three 'competing' water use categories are given immediate priority; they are first considered in the context of medium and long term national/State objectives and goals (a country's 'lifestyle, people and environment/socio-economic goals') and then debated and discussed to find possibilities for agreed, balanced outcomes,

The present basin plan is really producing an '**environmental watering plan**' with the socio-economic impacts just added on at the end – it is not an integrated planning approach that seeks some agreed balance between the environmental, social and economic outcomes, and it is just ridiculous to say that 'this is an integrated, long term basin plan' because it is not.

One must question whether Parliament really wanted this narrow approach to basin planning in the Water Act or did the hype about the supposed 'basin decline' simply cloud the proper considerations about how to go about sensible, integrated and balanced basin planning??

The previous MDBC was considered a world leader in developing and promoting these integrated and balanced approaches through a highly participative approach, and has been wrongly accused of 'stuffing up the basin' when in fact the main issue 10 to 15 years ago was the reluctance of the scientists to provide 'best estimates' input of the science to use in integrated basin planning and water re-allocation studies. Yes, as a result, the planning outcomes were probably short on environmental rigour and responses, and there may be a need to re-adjust the shares between the three outcomes but this must be based on good, accountable science and hydrology, open to wide public scrutiny and in a way that seeks some form of acceptable balance and takes account of Australia's long term aspirations, goals and emerging food security and production targets.

This wide scrutiny must start by looking at the varying impacts on basin health of both the long drought, and the levels of water development/irrigation, and opening up for debate the conclusions that MDBA draws from such an analysis. Let's not confuse both impacts; it is very wrong to make quick assumptions, or take short cuts, in making judgments on the causes of any basin health decline. Judgments must be based on the widest possible estimates of 'cause and effect', be very clear on what is drought-induced and what is the result of high water abstractions, and be open to wide scrutiny and debate.

Where has this all gone wrong?

- The Water Act simply doesn't allow for creating an 'integrated basin plan' – it creates an environmental watering plan with related socio-economic impacts added on as 'further information'. Is this really what Parliament wanted ??

If this is what is intended, then the government should come out and say so – this at least means that everyone knows what 'playing field' we are in. *But if the intention is that 'integrated river basin planning' is the basis on the plan, that we need to take strong account of international wetland and*

*biodiversity agreements, but that, overall, 'balanced' environmental, social and economic outcomes over the medium and long term is the goal, **then the Act must be changed as it can never promote this in its present form.***

- Even allowing for this dilemma as to the problems with the Act, there are major deficiencies in how MDBA has gone about the planning. Basic to any 'best practice' basin planning approach, is the need for wide spread 'participation and consultation' with the widest spread of stakeholders. This occurs world-wide in all developed countries and even in developing countries, where meaningful consultation is difficult due to the poor education levels, very little basin planning would now occur without stakeholder input at all stages of the planning process – everyone now realises that knowledge, opinions and good ideas are not just the domain of the bureaucrats!!.
- The MDBA has not undertaken any meaningful basin-wide consultation during the formulation of the plan, and even the round of discussions after the 'guide' was released were little more than short information sharing sessions with no time or effort made to get into essential detail. I have worked at high levels on water planning in developing countries such as Thailand, Cambodia, Laos, Vietnam, Namibia and Peru and all are making more effort, and doing a better job, at 'stakeholder consultation' than MDBA; in fact in most cases of these developing countries, the approaches to integrated basin planning are now better than what is occurring under the Commonwealth Water Act – what an indictment!
- What this means is that communities have not had any chance to see, discuss and debate the hydrology assumptions and how the various models have been used to determine 'sustainable yields' for each valley, how the science has been used to conclude that the basin is in poor health, how the impacts of the long drought have been differentiated from any long term trends caused by high levels of water use, how the 'key environmental assets' have been chosen, what are the health of these and why, how much water is needed for various levels of improvement and what is reasonable having in mind economic developments and people needs that will persist and grow in the future (long term trends and needs??), and how all of this somehow accumulates to a conclusion that '3000 GLs are the minimum extra water needed to satisfy the environmental needs' (why not 2500, or 2000 or even 1000???),
- There should have been workshops in the upper and lower parts of each of the 18 or so valleys/sub-basins, and probably two or so rounds of these workshops, to properly explain and then allow discussion, scrutiny and debate about all these underlying assumptions and data. How can communities accept these unchallenged science and technical assumptions that are used to conclude that the 'basin's water and land resources are in ill-health' when all they see is improved water quality (less salinity in the lower river, lower nutrient levels), more native fish catches than for many years, much improved land management and less erosion etc., and now, an immediate return to a 'healthy looking basin' following the breaking of the drought. How can they possibly comment on the draft plan when it is released (within only a 16 week review period!!) when they have not had any chance to understand and debate these underlying issues??

So, based on its TOR, the Committee appears to have no option but to consider regional socio-economic impacts that are set to occur as a result of:

- An inappropriate piece of legislation that expressly prevents integrated river basin planning, nor a 'balanced approach', in accord with widely accepted 'best practice' concepts,
- A planning process that has not opened up the science and hydrology to scrutiny and public discussion and debate, and that often appears at odds with what the regional communities see on the ground, as improvements in land and water management,

- *A complete lack of meaningful consultation and participation* between MDBA and the communities up and down the 18 or so valleys within the MDB – all communities must first understand the ‘robustness’ or otherwise, of the science and the hydrology to be able to then judge the relativity of the socio-economic impacts; why debate these s-e impact levels if in fact the underlying science just can’t be justified?
- *A lack of consideration of the long term socio-economic objectives* for Australia and the basin, meaning that the present short term decisions being considered will almost certainly be at odds with the long term needs and strategic directions.
- *A lack of consideration of food security and food and fibre productivity issues* over the short, medium and long term - it is now said by some economists that Australia now consumes as much as 70% of its food production (previously thought to be more like 35%) so what long term impacts if we take away say, 35% of water from production, during a time when we need to be increasing food productivity.

So my following comments on socio-economic impacts on regional Australia are made to comply with the Committee’s TOR but must be seen in the light that the whole planning process is badly flawed and we should have a much more vigorous and broadly based debate on the fundamental underpinning issues before coming anywhere near socio-economic evaluations. Why discuss the ‘icing on the cake’ if the cake itself is flawed and likely to collapse???

The Socio-economic impacts

The socio-economic impacts are far reaching and will have major impacts on regional communities, particularly those that have a high reliance on an ‘irrigation fed economy’. Impacts on individual water users may not be significant if proper market rates are paid for water purchases and this is still targeted at ‘willing sellers’ – and this means sellers that are not forced to this situation by drought-induced economic conditions, but genuinely want to leave the irrigation industry.

But regional impacts accumulate as many sellers from a particular region leave the industry. Economists in the past have inferred that if between 10 and 15% of water was to leave a regional centre, this would create an irreversible decline as many of these centres tend to be ‘one industry specific’ (irrigation related) and can’t readily change to adapt to completely new industries (Griffith, Deniliquin, Shepparton). The basin plan talks about water re-allocations of much more than this – up to 40% for some key areas.

These water cutbacks are obviously linked to food and fibre production levels, which are much more important to the domestic economy and to ‘supermarket supplies and demands’ than had been previously assumed. In May 2000 a group of leading economists and Australian Bureau of Statistics (ABS) statisticians reached a little publicised agreement. It was concluded that the long held claim of the Australian Bureau of Agricultural Economics (ABARE) that Australia exported 80% of its agricultural product “has no basis in fact.”

The meeting was prompted by the publication of a landmark study by Queensland University of Technology’s Dr Mark McGovern¹, an economist specializing in input-output analysis. His paper contradicted the long-held belief that Australian agricultural product was primarily exported. In fact, the bulk is sold onto the domestic market.

¹ McGovern, Dr Mark, QUT School of Marketing and International Business, “On the Unimportance of Exports to Australian Agriculture”, *The Australian Journal of Regional Studies*, Vol. 5, No. 2, 1999)

The meeting was held at Brisbane's old Customs House. In what was called "The Customs House Agreement"² it was agreed that;

- 22% of unprocessed agricultural product was directly exported (e.g. live cattle, wheat, cotton) (Appendix 1);
- "about 30%" in total was exported, when agricultural product in first round manufactured products (e.g. raw sugar, processed beef) were included; and
- therefore, the remaining 70% of agricultural product at the level of first round manufacturing was sold into the Australian domestic market.

Dr McGovern's paper and the Customs House Agreement showed that the claim that Australia exports 80% and consumers 20% of its agricultural product **is simply wrong**. This does not deny the importance of export markets to Australian farmers, but to emphasise the serious error of policy makers in failing to recognise the overwhelming importance of the domestic market to agriculture. In this context, the loss of up to 40% of water from key regional 'food producing areas' will impact greatly on the domestic food supply and demand relationship – this has not been addressed in the basin plan. **So not just regional economies will be impacted but the big city food chain and cost issues will also be a large factor.**

Offsetting the Impacts.

Considering how to manage these major socio-economic impacts must be looked at over short, medium and long term planning horizons – short term to mitigate the immediate impacts on communities and then medium and longer term to ensure that we are taking account of the future trends and possible scenarios when short term decisions are made.

I am not commenting on short term perspectives here. The Committee will no doubt hear submissions from local councils and communities that are much closer to immediate concerns and impacts than I am.

For the medium and long term, in effect, each of the 18 or so valleys within the MDB need a 'strategic development, business and people management plan' developed that covers time frames of up to 50 years. Regional development agencies in the State governments do this type of work now but on a very narrow basis and not with the impact of the water cutbacks in mind. Such a ***strategic perspective*** is critical as water cutbacks are a major change to the 'economic base' of the regions, and will lead to reduced business and economies, that lead to reductions in populations, and then cutbacks in all range of services – banking, transport, education, health etc. So a strategic perspective for the future is essential and this must be done largely by state regional development agencies, in concert with strong regional stakeholder participation, but with commonwealth funding and support, as part of structural adjustment arising from the water re-allocation.

These ***strategic plans*** should have many sub-plans or sector plans that feed into the overall perspective. There will be, as an example;

- Population trends and possible expansion, industry and regional growth options, land use and agriculture perspectives etc., - this is basic to any regional planning exercise,
- 'Water infrastructure, efficiency and long term needs' plans (10, 25, and 50 year perspectives) – these are what water resource agencies used to do as part of routine water planning work that sought to respond to the medium and long term population/development trends, but this doesn't seem to happen anymore – it leads to sensible study of new dams options (yes, they can be sensible!!), major river operations

² The Customs House Agreement, Agricultural Production Destination Committee of the Queensland National Party, 9 May, 2000. The agreement was named after Brisbane's old Customs House where the meeting was held.

efficiencies, piping of inefficient channels etc.. There are still sensible dam options such as Murray gates on the upper Murray system , and the Clarence inland diversion options should not just be rejected out of hand through some emotional perspective (just see what China sensibly does in moving water from one region to another). The point is, is that all of these issues must be looked at as a 'water planning for the future' package and have to be linked to the future population and food security/production needs.

- Food and fibre trends, requirements and obligations – local, regional, state and national present and future needs, world needs in an increasingly affluent society and Australia's role in meeting these expanding needs,
- Transport, health, business, social assistance and other services perspectives – how to manage the needs of changing regions and adjust to likely changes in the 'shape and content' of regional economies
- People strategies to better equip communities for a different future.

Once these 'regional/valley strategic plans are accepted there must be long term financial support from commonwealth/State governments to implement them, under the oversight of state agencies, regional councils and local stakeholders.

This strategic planning must be completed before any large scale water re-allocations occur in practice. In NSW, the present water sharing plans are up for review in about 2014, whilst in Victoria it is 2019. To avoid cross-border distortions a common date of 2019 should be adopted and this should be dependent on these strategic plans being completed, endorsed and suitably costed/funded over the short, medium and long term.

Implementing these long term 'strategic plans' on a valley by valley basis will be difficult and costly but essential if up to 40% of a basic 'economic input' (water) is removed from regional business and economic profiles. National and State Treasuries need to understand this and be part of the strategic planning from day one.

NOTE that Treasuries need to understand that this level of financial assistance needed comes directly as a result of the water re-adjustments dictated by the basin plan, and its underlying assumptions on the hydrology and 'land and water' science, which have never been placed under public scrutiny.

Proper open and transparent discussion, debate and scrutiny of all of this, right across the communities of the basin, is likely to lead to more balanced planning outcomes and to less structural and financial adjustment packages. Why are Treasuries not demanding a more transparent and a much stronger accountability process by MDBA, and a much stronger strategic and long term approach, linked to peoper overall cost-benefit analysis, before committing large amounts of tax payer funds to offset the impacts of the basin plan?