

SUBMISSION TO THE

ENQUIRY INTO WATER MANAGEMENT

IN THE COORONG AND THE LOWER LAKES

AND THE IMPLICATIONS FOR THE LONG-TERM

SUSTAINABLE MANAGEMENT OF THE MURRAY

DARLING BASIN SYSTEM

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2008

24th September

SUBMISSION

SUMMARY

1. To enable a decision to be made on provision of fresh water to the Coorong and the Lower Lakes, and determine the implications for the long-term sustainable management of the Murray Darling Basin (MDB) system requires the upgrading of the current Commonwealth Department of Water (CDoW) within the Department of Climate Change, to a Department in its own right with its own Senior Minister.

Water management is a critical component of the nation's economy and must be managed in the context of policies developed by the Department of Climate Change just as in every other sector of the economy. Water issues are important enough to need representation at Cabinet level particularly when the issue arises of the States ceding certain powers to the Commonwealth to manage water.

2. The independent CDoW must have significant in-house professional expertise in all aspects of water management and should be headed a suitably technically qualified Secretary. Its highly qualified staff will need to be able to brief research organisations and data gathering bodies, converse with catchment management committees and the dozens of entities involved in water management within a catchment.

3. The CDoW's first task should be to examine the operations of all agencies operating in the water management field within a catchment to determine gaps in available data and commission research to fill them. To do this will require negotiation with the States and other funding bodies to gain access to information.

4. The goal should be to develop a MDB wide water balance model which balances water runoff into the catchment, with the minimum usage requirement of the environment, cities and towns within the catchment, agriculture and horticulture and industry.

5. This will enable the CDoW to develop basin wide policies to ensure water management in the national interest. These policies may be drastic, such as forbidding any transfer of water out of the catchment, restricting rural property owners' rights to all the water that falls on their land, and that the Coorong cannot be provided with fresh water in the long term, and hence the short term.

The CDoW will be developing and implementing policy in the light of the impact of climate change, such as the prediction that a drop in rainfall of 10% will result in a reduction of in excess of 30% in runoff, and hence the quantity of water available for use in the catchment.

6. At this stage it will be necessary to negotiate with the States to enable certain powers to be ceded to enable water management in the national interest. In particular, in relation to monitoring and policing of water use and the possibility of partial allocation of water to markets rather than relying on open water trading to ensure that

the environment and agriculture can compete with domestic and “non critical” use water such as Managed Investment Schemes.

7. The basic foundation for the CDoW clearly exists in the MDB Commission(MBDC). Its incorporation into the current Department within the Department of Climate Change and Water does not appear to significantly change the way in which the MDBC has traditionally operated.

The relevant point in the July 2008 COAG Agreement on MDB Reform is in Cl 14 of the preamble that preserves States’ rights in the matter of water management issues and the requirement for Commissioners to reach unanimous decisions.

8. There are many extremely competent agencies operating in water management in the MDB. The States’ Water Sharing Agreement, although at present suspended due to the extreme drought, has been in place for almost 100 years. Since 1895 we have suffered two droughts of the severity and duration of the current one.

The issue of whether or not the current crisis in the MDB is due to drought or climate change is irrelevant. The reality is that there is a finite quantity of water in the MDC which each year has to be managed in the national interest, in the light of the inevitable but unquantified impact of climate change on the availability of water for use in the catchment.

The pressing need is for an agency to coordinate the information available from all sources, formulate policy in the light of climate change and manage the available water in the national interest.

9. It must be stressed that the vast majority of information called for in this paper is available in the system. The issue appears to be one of drawing it together into a Commonwealth agency that has the technical ability and the authority to develop water management policy in the national interest, accounting for the increasing impact of climate change, and limited powers acquired from the States to allow implementation of key policies.

INTRODUCTION

A decision to provide water to the Lower Lakes cannot be made until there is a comprehensive understanding of the needs of the environment in the context of competing water interests and the likelihood of significant reductions in water runoff due to climate change.

An examination of water management issues in Australia reveals the need for a technically competent Department capable of evaluating the many current activities in the field, planning future research, audit and infrastructure initiatives, and most importantly, having the authority currently held by the States, to implement them. There are many highly competent bodies working in aspects of water management hampered by gaps in available information and the lack of central coordination of the necessary initiatives.

The previous Commonwealth Government announced the establishment of a CDoW in 2006 which should have been resourced to provide this coordination and management function. The CDoW's role should have been carefully defined, enabling it to exercise control over management of water whilst recognising the expertise and role of existing organisations and balancing States' interests.

The need to assemble comprehensive accurate data on all aspects of water behaviour is acknowledged by both the National Water Initiative (NWI) (2004), and previous Government's "A National Plan for Water Security" (January 2007). The knowledge produced from collecting these data is the prerequisite for the development of comprehensive water policy leading to expenditure on specific initiatives and the taking of specific action.

However neither of these documents recognises this principle and the proposed expenditure appears ad hoc, lacking the necessary priority hierarchy which reflects best return for taxpayers' dollars. Although much is being done in research data collection and management of the complex water issues, coordination is necessary to fill gaps.

The "Strategic Science Framework for a National Water Commission" (NWC) (Chartres, April 2006) which discusses the objectives of the National Water Initiative (NWI) was produced two years after the NWI document. Although a very informative document, it becomes a justification for already proposed actions rather than a basis for selecting and setting priorities for them. The Science Framework does however point to many areas where research is needed to support principles outlined in the NWI.

The report of Australian Government's Standing Committee on Agriculture, Forestry and Fisheries "Getting Water Right(s) - The Future of Rural Australia" (2003) contains among its many recommendations pertinent to the current debate, the suggestion that The Living Murray Initiative return of 500 gigalitre (GL) per year to the river system should not proceed until adequate environmental scientific investigation is completed.

A comprehensive water environmental plan realistically integrated with competing water requirements is yet to be developed.

As a result of this situation there are a number of serious inadequacies in the NWI, The Living Murray initiative and the previous Government's "Water Plan" which has in effect been adopted by the Rudd Government .

An example is the "\$3 billion to address water over allocation (sic) in the Murray Darling Basin"

Irrigators have a water licence entitlement which used to be attached to the land title but which is now separate. There are approximately thirty different types of water entitlement. The entitlement is a virtual right against which water is allocated once the available quantity of water is determined each year. Provided water is not allocated until water is in the relevant storage, over allocation should not occur. The issue becomes the volume of water licence entitlements that exist in each catchment and its appropriateness, and abuse of process by participants in the process.

On the basis of the Living Murray initiative wherein \$500 million is to deliver 500GL through water buyback and water savings, the aim of the "\$3 billion to address over

allocation” (sic) seems to be to achieve savings and reduced entitlements of the order of 3000 GL. This could involve a significant reduction in the amount of irrigated land. What impact will this have on our capacity to feed ourselves and what will be the socio-economic impact on the Murray Darling Basin particularly in relation to stranded assets? Why should the remaining irrigators receive half the water savings when nearly all the costs to achieve them are being met by the taxpayer? What is the real water requirement for the environment? How much of the river “water loss” is recharging depleted ground water? Are the anticipated water efficiency savings scientifically achievable or simply wishful thinking?

A significant component is to come from water savings. Where is the data suggesting that this magnitude of water saving is possible? There have been extensive water saving measures implemented by the irrigation industry in recent years. It is likely that due to the severe drought we are drawing on ground water at an unsustainable rate and that significant river water will be required to recharge some of this ground water. Where is the data to determine the extent of this problem?

The major beneficiary of the proposed initiative is rightfully to be the environment. However the proposed jump from hundreds of GL at present committed annually to the environment, to the proposed thousands of GL to flow from this initiative, does require justification on the basis of sound science. The data gathering and research must be commissioned immediately to enable rational decisions to be made.

Despite impressions to the contrary, the July 2008 COAG “Agreement on MDB Reform” effectively endorses the Howard Government’s hastily prepared Plan, plus an extra \$1 billion for Victoria. Crucially however the Agreement leaves the vital issue of the control of water with the States. (Preamble Para 14)

SOME ISSUES

1. Whether the current crisis in the Murray Darling Basin (MDB) is due to drought or as the result of climate change is not relevant.

Over a defined period, the MDB catchment contains a quantity of water which is measurable to a fair degree of accuracy. This actual quantity of water should be managed by an independent CDoW administering comprehensive water policies developed in the national interest, and in the light of inevitable but at this stage unquantified reduction in stream flow due climate change.

Climate change will impinge on most aspects of government activity Eg. Transport and Agriculture but that is not a reason to place those departments within an umbrella Department of Climate Change.

The vital issue of water management particularly in the MDB, the nation’s most important catchment, is significant enough to have its own Department and Senior Minister rather than a Division in a Department grappling with developing policy on climate change, a major issue impacting on most aspects of the economy.

2. The most significant strategy contained in the Water Plan is the ceding of the States' control over water to the Commonwealth Government (CG), which should result in all water management issues being coordinated by one authority, a CDoW. There has never been an explanation as to what this takeover of States' powers by the Commonwealth means in practice and it hasn't occurred, despite impressions to the contrary.

There are dozens of bodies impacting on aspects of water management ranging from State Government Water Departments, the MDBC, CSIRO, Cooperative Research Centres, catchment management authorities, universities, the NWI, the NWC, and the National Water Audit to name a few. A process needs to be developed that will enable the States to clearly see the implications of at least a partial power transfer. It really depends on how serious we believe the water situation to be.

3. The main thrust of the NWI involves facilitating open water trading. However the concept of unrestricted water trading does not recognize the unique nature of water as partly a public good, the over thirty different types of water licence entitlements, the fact that a licence represents an entitlement against which a percentage annual allocation is made on the basis of water availability, and the fact that open trading particularly between catchments may result in major inequities for some efficient irrigators. There are significant socio-economic factors requiring consideration, including issues surrounding the privatisation of water and the resulting impacts on the community and the environment.

4. The publication "High and Dry – How Free Trade in Water will Cripple Australian Agriculture" (Byrne et al.) 2006, contains informed analysis of these issues from the irrigators' perspective. It is the type of analysis that is required from the perspective of each water user interest group including urban, industry and the environment, to ensure rational consideration of sharing and balance between these users.

5. The "Water Plan" only addresses specifically the issue of agricultural and horticultural water and by implication, water for the environment. Urban water is inadequately dealt with, and industrial, energy industry and mining industry use of water are not mentioned. The publication "High and Dry" raises the need to consider Commonwealth Government (CG) partial intervention in the allocation of water between these uses or "markets" as the CG terms them and discusses the problems associated with letting the free market alone resolve them.

STEPS TO DEVELOP AND IMPLEMENT A COMPREHENSIVE NATION WATER POLICY

- 1 Create an independent CDoW with the power to investigate all aspects of water management, with the ultimate goal of acquiring certain States' powers to implement policies developed in the national interest.
- 2 Design a theoretical model based on available data in each major catchment
- 3 Conduct a comprehensive water audit including ground and fossil water, and rationalise and coordinate the relevant water research and monitoring activity.
- 4 Create a national water balance model based on sustainability in each of the

- major catchments
- 5 Develop a comprehensive national water policy
 - 6 Set priorities for expenditure on infrastructure and research to optimise national water management
 - 7 Manage the Commonwealth's 13 per cent share of Snowy Hydro Limited
 - 8 Implement policies, wherever possible using existing efficient agencies.

1. Create a separate Commonwealth Government Department of Water

A separate department charged with managing water in its own right is an imperative, as water becomes our nation's scarcest and most important natural resource.

There was a conflict of interest when control of water fell within the Department of Environment. The importance of the environment is incontestable. However the management of water needs to balance the needs of the environment with the needs of agriculture, horticulture, cities and towns and industry both urban and major water users such as electricity generation and mining.

The effect of climate change impacts on all aspects of our nation's future and it is appropriate that a significant department is dedicated to developing policy that will impact on most government departments dealing with significant aspects of the economy.

Water is a vital component and one of many aspects of the economy such as transport and agriculture which have to be managed in the context of climate change realities and predictions.

A new CDoW must have significant in-house expertise in all aspects of water management. It must reject some public service managerial models that in many cases have insufficient in-house expertise available to effectively brief, supervise, and assess the work of external consultants when their use becomes necessary.

It will require a highly experienced permanent head to manage the resolution of extremely complex technical, scientific, economic and socio-economic problems in the context of a political environment involving five governments.

A key objective should be to minimize CG duplication, keeping existing bodies in place wherever possible.

The Department might have Divisions that could;

- identify and coordinate the operations of existing bodies where relevant as discussed above,
- determine which tasks require CG control and which remain under State or local control
- Identify areas of necessary research and relevant data collection
- Develop water balance models- one initially based on currently available data to rationalize water audit and water management regimes to enable the preparation of a more accurate water balance model.

- Develop national water policy based on sustainability within each catchment,
- Implement policy. This would involve appropriate project delivery expertise to administer expenditure of CG funds and require certain of the States' powers to perform agreed functions,

The Department of Water could carry out the following tasks

2. Design a theoretical model based on available data on major catchments.

There are twelve major catchments in Australia of which the Murray/Darling is the most important in economic terms. Among the first tasks to enable an adequate Water Balance Model to be developed will be to identify the necessary parameters to evaluate all issues relating to water entering and leaving a catchment and its use and reuse. This will inform exactly what data has to be collected, the shortcomings in measuring techniques and other matters requiring research and development.

The broad basis for analysis of each catchment would be: Water in = Water out. Hence 'Available water within a Catchment' equals 'Measured Runoff' minus

- total evaporation,
- net increase in storages,
- net transfer to/from ground water,
- water flowing out of the catchment.

This quantity of water is available for distribution between users including cities and towns, agriculture and horticulture, the environment and industry including power generation and mining.

The understanding of the role of fossil water and environmental water are crucial areas requiring extensive investigation and research.

This development of a preliminary water balance model based on available data should precede the development of an audit and measurement regime.

3. Conduct a comprehensive water audit and rationalise water research and monitoring activity.

This is a process that is in progress as part of the NWI and is a plank of the Government's Water Plan. However it is reported that there are significant gaps in both these proposals, and it follows that it is only after step 2 above that the most rational audit and measurement program can be designed. The proposed audit is far more complex than assessing water in storages, figures for which are available which include estimates of water in private dams. The audit must include assessment of ground and fossil water. It cannot possibly be done by an outside organisation.

It will be politically expedient to encourage the most appropriate and efficient State based organisations to continue individual tasks within a framework of rationalisation, and coordination of activities by the CDoW.

4. Create a water balance model based on sustainability in each of the major catchments incorporating the data collected in 3 above.

This model will indicate as far as possible all water movement within a catchment and will inform the development of a rational water policy. The model encompasses precipitation, evaporation, storage, transfer to and from ground water, fossil water, use by agriculture, industry, towns and cities, the environment and outflows.

5. Develop a comprehensive national water policy.

Only after the above steps have been attempted will the data be available to set research and infrastructure priorities to ensure optimum national outcomes for taxpayers' dollars, in the development of a National Water Policy.

6. Set priorities for expenditure on infrastructure and research to optimise national water management.

It is at this stage that the CDoW can set and implement meaningful priorities in the national interest for projects proposed in the NWI and the current "Water Plan" and other initiatives that this developed Policy may embrace.

7. Manage the Australian government's 13% share of Snowy Hydro Limited.

Prior to water reaching the currently State controlled Blowering and Hume Dams, up to 5300 gegalitres of water, possibly the most significant storage in the country given its location, is in control of SHL. SHL's ultimate legitimate criterion for water release or withholding, is electricity generation and legitimate protection of their insurance contracts.

The CG in conjunction with the States should be viewing Snowy Water as a significant water asset with the capacity to play an increasingly important part in water management as priorities for use of SHL's water changes.

CONCLUSION

It must be stressed that the vast majority of information called for in this paper is available in the system. The issue appears to be one of drawing it together into a Commonwealth agency that has the technical ability and the authority to develop water management policy in the national interest, accounting for the increasing impact of climate change, and limited powers acquired from the States to allow implementation of key policies.