



Submission to the Inquiry into the impact of the Murray-Darling Basin Plan in Regional Australia

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Overview

The impact of the MDB Plan on communities depends upon its content and the way the transition from where we are today to a new, sustainable regime is managed.

A full submission is attached.

Summary

From an administrative perspective, the submission recommends

1. Giving responsibility for coordinating development of a whole of government approach to the resolution of the Basin's problems and development of the Basin Plan to the Chair of the Authority.
2. Preparing a green paper for consultation with all involved.
3. Releasing a white paper that states the Government's and the Authority's collective position on the best way forward.
4. Then preparing a draft and then a final plan that is consistent with the white paper.

Amongst other things, the green paper should explore the merits of facilitating greater engagement with community representatives.

1. Using a property-right approach to define the sustainable diversion limits in each region. This can be achieved by defining the minimum proportion of each entitlement type that needs to be secured for the environment in each region and the nature of the portfolio that needs to be held to manage risks and accommodate any climate and other changes that may occur.
2. Placing a significant proportion of the entitlements secured for the environment in regional environmental trusts and then challenging each regional trust to work with communities to ensure that local knowledge and skills are used to make best use of the water purchased.
3. Allowing the government to always be able to buy more water for the environment and never return to the compulsory compensation scheme envisaged in the Water Act and in the Guide to the Basin Plan.
4. Allowing iteration towards clever solutions that encourage innovation in the management of environmental water.
5. Establishing regional development funds and progressively placing money into these regional development funds as water entitlements are purchased for the environment.
6. Instead of putting money into infrastructure investments, putting money into these regional development funds on a sliding scale that increases as the proportion of water purchased for the environment from a region increases. Irrigation communities should then be left to decide whether or not to use this money for the development of irrigation infrastructure.

7. When buying water for the environment, offering to pay more than the minimum price so that the process is faster.
8. In regulated river systems, requiring each state to allow the unrestricted carry forward of water allocations from one year to the next.

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Improving the Basin Plan - Options for consideration

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Introduction

The Guide to the Basin Plan released by the Murray Darling Basin Authority represents one of the first attempts by a Government to develop management plan for a large river system that has its roots in scientific analysis. The approach taken was to trust the science and then present a strong set of recommendations to the community.

Rather than criticising the approach taken by the Authority and the communication mistakes made, this submission focuses on institutional opportunities to develop and deliver a plan that communities can embrace. The proposed approach enables greater use of community skills and knowledge, encourages innovation in the management of environmental water and provides funding for adjustment.

It is recommended that the approach taken to the definition of Sustainable Diversion Limits (SDLs) be changed. Consistent with the National Water Initiative, the environment's share of inflows into the system should be defined using a property-right rather than a rules-based planning approach. The result is a regime that allows further adjustments to be made without the compulsory acquisition of water from entitlement holders.

Ways forward

Giving the environment an entitlement

In recent times, the Commonwealth has been purchasing water for the environment and investing in projects that save water. Whenever a purchase or saving is made, water entitlement is transferred to the Commonwealth Environmental Water Holder. This property-right based approach is very different from the conventional planning approach that the Authority proposes to revert to. Around the world, Australia is being admired for the progress it has been making in the resolution of over-allocation problems through the purchase of water entitlements for the environment. The option should be kept on the table.

Under a planning approach, the environment is allocated a prior right via a legislative statement and an entitlement system used to define the rights of those licensed to take water. As experience in the Murray Darling Basin has shown, this planning approach has a tendency to fail. In practice, the needs of the environment are met only after commitments to other water users have been honoured. The new property-rights based approach that has been developed in the Basin gives the environment an entitlement equivalent to that given to other users. The approach forces governments to allocate water to the environment whenever it allocates water to any user holding an equivalent entitlement. The Guide to the plan, however, makes it clear that this arrangement is not to continue.¹ To implement a property-

¹ At page 103, the Guide says "Long term sustainable limits (SDLs) represent the volume of water that is available for consumptive use (irrigation, town water supplies, industry, etc) after the environment has received what it requires."

The amount the environment requires determines the limit and, hence, cannot be changed by purchasing entitlements from a consumptive water user.

rights based approach, it is necessary to change the way sustainable diversion limits are defined.

Under the Guidelines, the SDL is defined quantitatively as a volume rather than within a property-rights based sharing regime. The volume chosen to define the SDL is a long-term average reduced by 3 per cent to adjust for the Authority’s assessment of that part of the predicted effects of climate change not included in regional plans.

Once the implementation of the Basin Plan and regional plans is completed (2019), any further reduction of SDLs will need to be via a compulsory reduction of entitlements and the payment of compensation.²

This situation arises because, under the proposed Basin Plan, all water secured or held for the environment is defined as being outside the SDL. Further, the Water Act defines

“the *environmentally sustainable level of take* for a water resource means the level at which water can be taken from that water resource which, if exceeded, would compromise:

- (a) key environmental assets of the water resource; or**
- (b) key ecosystem functions of the water resource; or**
- (c) the productive base of the water resource; or**
- (d) key environmental outcomes for the water resource.”**

Significantly and if a quantitative approach is taken to the definition of a SDL, the words “if, exceeded, would compromise” mean that water held for the environment is not part of the SDL.

Once the Basin Plan is in place and regional plans approved, it will no longer be possible to reduce the amount of water being used by purchasing water entitlements for the environment. When a quantitative approach is taken, the only way to increase the environment’s entitlement or share of inflows is to revise the SDL and then either

- a) pay compensation for the reduction in the value of all entitlements in the system; or
- b) compulsorily acquire a proportion of each entitlement.

The way out of this surprising and presumably unintended feature of the Water Act is to use a property-rights based sharing rather than quantitative approach to the definition of SDLs. This is possible because section 23 (2) of the Water Act states that the

“A long-term average sustainable diversion limit for the Basin water resources, for the water resources of a particular water resource plan area or for a particular part of those water resources may be specified:

- (a) as a particular quantity of water per year; or**
- (b) as a formula or other method that may be used to calculate a quantity of water per year; or**
- (c) in any other way that the Authority determines to be appropriate.”**

There are a number of additional advantages as follows:

² See the bottom of page 154 in the guide and Division 4 of the Water Act.

1. Consistent with section 23 (2), the Basin Plan could require that regional plans establish rules for the allocation of water to each entitlement class in a region. The proportion of water allocated to the environment would then be determined by the size and portfolio of entitlements held for it in that region and, also, in regions from which water could be transferred to that region. When the portfolio of entitlements held in the environment's interest is judged to be inadequate, the market can be used to secure more water in a timely manner and without the need to run a complex administrative process.
2. The property rights approach enables iteration towards a solution with a focus on ways to improve the efficiency of environmental water use. If this approach is taken, the Basin Plan would need to indicate the minimum portfolio of shares to be acquired in each region, a timeframe for its acquisition and a target portfolio to be acquired if no ways to improve the efficiency in the delivery of required environmental outcomes can be found.
3. It also makes it possible for environmental managers to manage supply risk more effectively. A South Australian environmental manager may, for example, conclude that the most cost effective strategy would be to secure a portfolio of entitlements that included some general security entitlements from NSW and some low security entitlements from Victoria.³ Similarly, an environmental water manager may decide to sell some water allocation and use the money received to pay for the installation of a control gate that would allow the much more efficient use of environmental water.
4. An additional advantage of the property-right approach is the fact that accounting risks are distributed in proportion to the number of the entitlements held. If, for example, estimates of the amount of water being intercepted by a forest are too conservative then all water users, including the environment, will have less water made available to them. When a quantitative approach is taken, the SDL remains the same and, as a result, the amount of water allocated to the environment is reduced by the size of the under estimate in the amount of water intercepted. In short, when a quantitative approach is taken, the environment takes all the downside risk.⁴
5. It focuses discussion on the best way to manage environmental water and avoids the temptation for people to add up regional SDL and debate this number as if it has real meaning. Conceptually, one should only add quantitative SDLs together when the regions are closely connected and have a similar flow distributions.
6. It reverses the role of the entitlement system and regional plans. Freed from the need to determine the way that water will be partitioned between the environment and other entitlement holders on a day by day basis, plans can be made much more strategic and flexible in their orientation. Less prescription is necessary.
7. The proposed property-rights approach also deals with climate change and variability in a much more transparent manner. This is especially the case in the Southern Connected River Murray System where the MDB Authority is required to establish a conveyance reserve to ensure that enough water is available to supply critical human needs throughout the system and generally maintain the river⁵ at a minimum level. As a result of this arrangement, if a

³ This would have the additional advantage that it would enable a South Australian Environmental Water Manager to carry forward water from one season to the next.

⁴ Irrigators will argue that they would prefer the existing quantitative regime as this is what they understand. They also understand that when a quantitative regime is put in place, the impact of the majority of accounting risks fall on the environment.

⁵ Strictly, this is only required as far as Wellington.

property-rights approach is taken, a built in mechanism for managing the effects of adverse climate change is always in place – as the amount of water in the system reduces a larger proportion of water is allocated to the environment.

In summary, by taking a property-rights based sharing approach and defining the Environmental Water Requirement (EWR) as the portfolio of entitlements to be held for the environment in each region, accounting risks can be managed more effectively, the need to compulsorily acquire water in the future avoided and a more flexible approach taken to the resolution of the Basin's problems.

Significantly, whenever more water is needed for the environment, the need to switch on the risk allocation provisions of the Water Act that require the Commonwealth to pay compensation is avoided. The option to purchase entitlements for the environment from willing sellers is preserved. The compensation provisions set out in section 77 of the Water Act titled "Payments to water access entitlement holders" would never need to be used.

Maximising innovation - A regional approach

The next opportunity to consider is one that increases the opportunity to use local knowledge and skills in the management and use of environmental water.

Under the current administrative regime, all water being acquired for the environment is being transferred to the Commonwealth Environmental Water Holder. The result is a regime where ultimately, the Commonwealth Environmental Water Holder will have access to around 35% of all water entitlements. States and local communities will have to negotiate access to this water.

The alternative approach is to hold some water centrally but transfer a significant proportion of the entitlements acquired to regional environmental water trusts (See Young 2010). This approach builds upon the European concept of "subsidiarity" – the notion that a central authority should be responsible only for those functions that cannot be handled more effectively at a regional level. In this context, some but not all environmental water needs to be held centrally to ensure that Basin-wide trade-offs can be managed and opportunities to synchronise inter-regional initiatives pursued.

In the case of environmental water management, it is virtually impossible for any one person or entity to be aware environmental needs and opportunities throughout the Basin. Local knowledge is needed and as experience in Oregon's Water Trust has demonstrated is best achieved by giving local trusts absolute control of a water entitlement. Using existing laws the Commonwealth Government could decide to establish a set of regional environmental trusts and lease some of the Commonwealth Environmental Water Holder's entitlement to these trusts on a long-term basis.

When a significant proportion of a region's environmental water entitlement is held in a regional environmental water trust, local managers can plan with confidence and explore innovative options. A local manager, for example, may decide to water an area for three weeks and set aside enough water to guarantee that this area can be rewatered the following year.

When a regional approach to environmental water management is taken, there is greater opportunity to take advantage of local knowledge. Local pride in the extent of outcomes achieved per unit of water allocated to the environment emerges. Tension dissipates. More effort goes into the delivery of outcomes and a less into negotiation with a centralised bureaucracy (Young 2010).

If knowledge about how to distribute environmental water entitlements throughout the Basin is insufficient to do this on a permanent basis then, as a transitional arrangement, the Commonwealth could establish an environmental water management trust in each region and instruct the Commonwealth Environmental Water Holder to lease around 50 per cent of water being held by this entity to these regional trusts for, say, ten years.

In summary, there is an opportunity to establish regional environmental trusts throughout the Basin, allocate entitlements to them and make them both responsible and accountable for wise use of this water.

Funding adjustment

The next opportunity to consider is the question of how best to assist communities to adjust to a regime where accounting and supply risks are shared more evenly between the environment and all other users. Whilst strictly outside the control of Authority, it is current policy to resolve the over-allocation problem by

1. Purchasing water entitlements for the environment only from people prepared to sell some of their entitlement at the current market prices.⁶
2. Investing in projects which, by making irrigation more efficient, enable 50% of the savings to be transferred as an entitlement to the Commonwealth Environmental Water Holder.

Typically, the price paid per megalitre of entitlement secured through an infrastructure project is two to three times higher than that paid for a megalitre of water purchased by the Commonwealth. Many criticisms have and will continue to be made of this approach.

One of the criticisms made is that these two mechanisms do not address the interests of the communities affected by the transfer of water to the environment. Another criticism is the observation that government investment in projects that improve the efficiency of water use is best described as a “subsidy” that disadvantages irrigators who have upgrade infrastructure at their own expense. Moreover, several people have observed that the \$8.9 billion allocated for the purchase of water and investment in infrastructure is insufficient to secure the water needed to achieve the SDL limits proposed by the MDB Authority. There is, however, sufficient money to achieve the proposed SDL and make some money available to assist communities to adjust if most of this money is used to acquire water entitlements for the environment.

Instead of directly funding infrastructure projects, the Commonwealth Government could decide only to purchase water for the environment and, in parallel with this approach, make contributions to development funds set up to support adjustment in each region. Acting on the assumption that community impacts are non-linear, the size of the contribution made per megalitre purchased could be increased as more and more water is purchased from a region.

Within broad guidelines, each region would then be free to determine how best to allocate this money and determine how much should be invested in projects that improve irrigation efficiency, how much should be invested in the restructuring of supply systems and how much in building the infrastructure needed to enable those adversely affected by the purchase of water for the environment to pursue new opportunities.⁷ If this approach is taken the

⁶ It is Commonwealth policy to try to do this without increasing market prices.

⁷ A warning needs to be issued, a review of Australian experience with ten eras of adjustment experience found that, despite the best intentions, most adjustment assistance programs have had severe unintended

resolution of over-allocation problems could be speeded up through the use of reverse tender and other similar buyback arrangements that offer to pay more than the current very low prices being offered.

In summary, rather than investing in projects that improve irrigation efficiency, consideration could be given to the establishment of regional development funds which give all members of a community an opportunity to apply for and receive financial assistance.

Carry forward - reducing that amount of water needed for the environment

The remaining institutional opportunities addressed in this paper would require amendment to the Water Act and agreement among all the parties involved. The first of these is a policy change that would allow the carry forward of water by all entitlement holders. This already happens in Queensland's regulated river systems under what is known as a continuous accounting arrangement. Carry forward is allowed in Victoria and New South Wales up to 100% of entitlement but under normal (Tier 1) conditions carry forward is not allowed in South Australia. In contrast with irrigation, often the most appropriate strategy for an environmental manager to adopt includes the creation of flood like conditions every few years. If this is to be done efficiently, then environmental managers need to be able to accumulate water over several years and then release it over a short period of time.

In addition to this, the arrangements for the guaranteed supply of water into South Australia need to be changed so that releases of any water carried forward by a South Australian entitlement can occur outside the envelop of flow obligations that the Water Act requires New South Wales and Victoria to honour.

In summary, the proportion of water entitlements that need to be acquired for the environment will be less if the Basin Plan requires all States to move to a continuous accounting regime and optimise the inter-temporal use of water.

Next steps

As indicated above, the next steps require development of a whole-of-government strategy for structural adjustment in the Basin and the development of the Basin Plan. Given the complexity of the issues and the nature of recent community responses, one option is to expand the role of the Chairman of the MDB Authority to include responsibility for coordinating and communicating a whole-of-government response as well as developing the Basin Plan.

As the issues are complex and require careful consideration, one way forward would be to prepare a green paper that explores the many issues and choices with care and then follow this paper with release of a white paper to define the direction that the Government and the Authority proposes to take.

Formal preparation of a draft and then a final Basin Plan in a manner consistent with the conditions set out in the white paper would follow.

consequences that undermine most if not all of the benefits sought. Rather than placing this impediment rather than expedited change (McColl and Young 2006, 2007).

References

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