



Australian Government
National Water Commission

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

On 28 October 2010, the House of Representatives agreed that the House Standing Committee on Regional Australia would hold an inquiry into and report on the socio-economic impact of the proposed Murray-Darling Basin Authority's 'Guide to the Proposed Basin Plan' on regional communities. This submission addresses the terms of reference for the inquiry, and is intended to provide information which may assist the Committee in its deliberations.

Overview

The National Water Commission (NWC) recognises that developing a whole-of-basin plan is a difficult and complex task - indeed it is one of the largest and most challenging water planning exercises in the world. The development of a single plan that covers the entire Basin will be a huge step forward for water management in Australia.

The NWC is of the view that the *Water Act 2007* (Water Act) can deliver a Basin Plan that is consistent with the National Water Initiative (NWI). Both the NWI and Water Act require the return of over-allocated or overused systems to environmentally sustainable levels of extraction or take - that is, extraction levels that will support key environmental assets, ecosystem functions and the productive base.

The identification of potential social and economic impacts in the Basin is an important step in the process of developing a Basin Plan.

The NWC has argued that transparency is a critical part of water planning and is essential in building both understanding and confidence concerning final objectives. We therefore welcome the MDBA's public release of the evidence and science underpinning the proposed Basin Plan.

It is important to acknowledge that the release of this Guide to the Basin Plan marks the beginning of the process to develop a Basin Plan over the coming months. What is now crucial is the consultation and engagement with the basin community that will take place in the months ahead. This is the next and most vital step in deciding how best to go about recovering water, whilst easing the impacts on regional communities.

The NWC urges all parties to engage constructively with the process so that ultimately a Basin Plan is implemented and there is clarity about the rules going forward. A constructive approach will allow governments and affected communities to focus on the crucial process of adjustment to secure key environmental assets, a productive irrigation sector and confident communities.

This submission includes:

- comments on specific matters identified within the terms of reference
- comments about general issues for water planning, water markets and structural adjustment, and
- some background on the NWC and the NWI.

Comment with respect to individual terms of reference:

Direct and indirect impact of Plan on regional communities, including agricultural industries, local business activity and community wellbeing

Predicting accurately the impacts of the Plan on regional communities is a complex and challenging objective. As one contribution to understanding the impact of water reform on individuals, communities and agricultural businesses, the NWC published in June 2010 a report on the impacts of water trade.¹

The report is a comprehensive and integrated assessment of the affects of water trading at local, regional and basin-wide levels from 1998-99 to 2008-09. This covered the period of the severe drought that affected the region and which led to severely reduced water allocations.

Several of the findings in the report are pertinent. The study noted that:

"...water markets are making a major contribution to the achievement of the NWI objective of optimising the economic, social and environmental value of water. The overwhelming conclusion of the study is that water trading has significantly benefited individuals and communities across the s[outhern]MDB."²

Concerns about adverse economic and social impacts of water trading are usually linked to cases in which outward trade reduces local water use, irrigated agricultural production and economic activity in associated industries and regions. Reductions in economic activity are linked to concerns about community viability.³

Even in cases where regional water use fell, analyses of production and water-use data demonstrate that reduced regional water use did not lead to a proportional reduction in the value of agricultural production—because water is moving to those who value it most. Farmers may exploit dry land farming opportunities, substitute water for other inputs (such as fodder) and increase their on-farm water-use efficiency. It has been observed throughout the sMDB that water trading allows some (high-value) industries to maintain production while other (low-value) industries reduce production.

Comparisons of trade patterns and key socioeconomic indicators revealed no discernible link between patterns of water trading in or out of a region and changes in population, employment in agriculture or weekly household income. Instead, it was found that observed trends in those indicators were similar across regions regardless of their water trading history. For example, employment in agriculture fell in all regions, regardless of whether those regions were net purchasers or sellers of water. The South Australian Murray region showed the sharpest decline in employment in agriculture between 2001 and 2006, despite being a net importer of water during that time. This suggests that other factors had a greater impact than water trading in driving social and economic change at the regional level between 1996 and 2006.⁴

In relation to impacts on regional economies and communities the NWC observed that "All regions benefited from water trading. However, declines in water use due to trading did have flow-on impacts on associated industries and communities in some localised cases, such as rice-growing areas in the NSW Murrumbidgee and Murray regions and the Pyramid-Boort region in northern Victoria."⁵

The NWC also submits that the maintenance and restoration of ecosystems and key environmental sites is likely to produce a number of benefits that will be difficult to quantify economically. These

¹ *The Impacts of water trading in the southern Murray-Darling Basin: an economic social and environmental assessment* June 2010: <http://www.nwc.gov.au/www/html/2816-impacts-of-water-trading-in-the-southern-murraydarling-basin.asp?intSiteID=1>

² *Ibid*, Executive summary p v

³ *Ibid*, Executive summary p vii

⁴ *Ibid*, Executive summary p vii

⁵ *Ibid*, Executive summary p x

include enhanced local amenity for communities, improvements to the quality of water that is used for community supply and increased tourism opportunities.

Structural Adjustment

The NWC notes that there will be local and regional industry adjustment effects likely to arise from the implementation of a Basin Plan. Once again, quantification of these will not be straightforward, but the NWC has commented broadly on adjustment issues in the 2009 Biennial Assessment of the NWI⁶.

The NWC assessed performance in addressing the NWI objective of addressing future adjustment issues that may impact on water users and communities (NWI clause 23(ix)). The assessment focused on the irrigation sector in the MDB, where the NWC considers that adjustment challenges will be most significant concluding that:

“Structural adjustment is the continuing process of change in the size, composition and characteristics of industries, which occurs naturally in response to a range of market, technological and environmental factors, as well as in response to government policy reforms. Adjustment should be seen as a necessary and positive phenomenon bringing opportunities for innovation and improved productivity.

“Successful adjustment is necessary for successful water reform. For that reason governments should pay attention to the pressures and processes of adjustment. However this does not mean that special adjustment programs are either necessary or desirable. On the contrary, too many supposedly pro-adjustment programs and policies have, in the past, delayed, distorted or derailed adjustment processes—to the long-run cost of the communities involved.

“Across much of Australia, and in particular in the MDB, future reductions in water availability, combined with other factors such as commodity prices, exchange rates and social trends, will contribute to ongoing adjustment in the irrigation sector and irrigation-dependent communities. The reductions in water availability for irrigation in the MDB are expected to result from a combination of factors including drought, climate change and establishing sustainable diversion limits for surface and groundwater systems. For broad planning purposes, it is important to understand that these reductions are likely to be very significant. While irrigation industries and communities have been responding to the many and varied forces of change for decades, reduced water availability will add to these pressures.

“Water reforms outlined in the NWI aim for more environmentally, economically and socially sustainable water management. Water markets play a critical role in this transition to sustainability by giving entitlement holders the opportunity to make their own adjustment, investment and production decisions. By removing barriers to trade and other policies which otherwise impede the natural and continuing process of adjustment, governments can facilitate this necessary and positive process. Water trade and environmental water purchase programs should be allowed to proceed in a timely, agreed and coordinated way, unencumbered by artificial trade barriers. At a time of drought and declining market conditions, irrigators need more options and flexibility rather than less.”

In summary, the NWC has found that some measures which have been implemented to address concerns about the localised community impacts of adjustment, such as state government restrictions on water trading, undermine the ability of water markets to facilitate adjustment by individual irrigators. This causes confusion, distorts smooth adjustment, adds unnecessary cost, and undermines confidence in water management across Australia.

In the NWC's view, maintaining an open attitude to continuing structural adjustment is essential to successful water reform. However, this does not necessarily mean that additional financial assistance is either warranted or beneficial. In fact, governments can impede the natural process of adjustment when they try to slow down the process or influence the outcomes, so a considered approach is required.

⁶ *Australian Water Reform 2009: Second biennial assessment of progress in implementation of the National Water Initiative*, Chapter 10, National Water Commission, Sept 2009 (BA 2009)

Water Markets

The NWC considers that water markets are an important mechanism to allocate water efficiently and contribute to the NWI goal of managing water in a way that optimises economic, social and environmental outcomes within the framework established under plans. Water markets provide opportunities for water to be reallocated between competing uses and allows for flexibility in responding to emerging issues, such as drought and climate change.

The formulation of a water management plan is usually an important prerequisite for creating a water market for a particular water system. In effect, planning defines and caps the water available for consumptive use, which can then be reallocated through trade. Good planning is essential for sustainable water management to prevent overallocation and other problems that arise if diversion limits or resource characteristics are poorly specified.

Water Planning

Water plans establish a balance between environmental and consumptive uses and are fundamental to water management. Under the NWI, transparent, statutory-based water plans should be developed for all surface water and groundwater management units in which water entitlements are issued.

Water plans ultimately are about the sharing of a resource, with a trade-off between competing uses in the plan. Trade-offs between competing outcomes for water systems will involve judgements informed by best available science, socio-economic analysis and community input. Transparency of process, inputs and decision making is crucial in obtaining acceptance of the finalised plan.

The necessary legislative reforms to enable NWI consistent water planning have been completed in all Basin jurisdictions but ongoing delays in completing and implementing water plans across much of Australia are preventing the full realisation of the benefits of an effective water planning regime envisaged under the NWI.

In the 2009 Biennial Assessment of progress in water reform⁷, the NWC expressed disappointment at the lack of progress towards the return of over-allocated or overused systems to environmentally sustainable levels of extraction. Water planning continues to be a focus for the 2011 Biennial Assessment and the NWC has highlighted the Basin Plan as an historic opportunity to meet this challenge.

In particular, current assessment work is being guided by public submissions, regarding the extent to which:

- the relationships between pathways for returning overallocated or overused systems to sustainable levels, such as buybacks, and the water needed for environmental assets are clear
- water plans have provided improved security for water users, and
- the process for developing plans has been transparent and taken all interests into account.

The identification of potential social and economic impacts in the Basin is an important step in the process of developing a Basin Plan. The public release of the evidence and science underpinning the proposed Basin Plan can allow for thorough engagement and consultation with the Basin community on the social and economic impacts.

The NWC has argued that transparency is a critical part of water planning and is essential in building both understanding and confidence concerning final objectives. We therefore welcome the MDBA's public release of the evidence and science underpinning the proposed Basin Plan.

⁷ BA 2009, Introduction (www.nwc.gov.au/www/html/147-introduction---2009-biennial-assessments)

Options for water-saving measures or water return on a region-by-region basis with consideration given to an analysis of actual usage versus licence entitlement over the preceding fifteen years

The NWC has previously recommended that a mix of options be considered to provide additional water required to achieve the environmental outcomes established in the Basin Plan, while minimising impacts on third party holders of water access entitlements⁸. In the 2009 Biennial Assessment, the Commission found that environmental purchase programs are a key pathway to both economic and environmental sustainability, noting also that careful attention should be given to the potential synergies and conflicts between the Commonwealth buyback program and investments in irrigation system renewal.⁹

The NWC has also been concerned for some time that the impacts of interception activities, such as plantation forestry and farm dams and bores, are not always being appropriately accommodated in planning and entitlement regimes. These types of water use may provide opportunities for water-savings.

The role of governments, the agricultural industry and the research sector in developing and delivering infrastructure and technologies aimed at supporting water efficiency within the MDB

The NWC agrees that there is a role for improved infrastructure and technologies to contribute to improved water efficiency. Improved efficiency will come from a mix of continued water market development, appropriate improvements to infrastructure (on and off farm) and changes to crop types.

The NWC cautions that improvements to infrastructure should be targeted and cost-effective. The Commonwealth and state governments are making major investments in irrigation renewal projects. While such investments are generally a positive contribution to better water management, government funding has the potential to distort water use and economically efficient investment decisions¹⁰.

The NWC recommends that implications for future water charging should always be made transparent, especially to future users of the infrastructure, when irrigation infrastructure investment proposals are being developed. Investment should be consistent with NWI commitments relating to full cost recovery, and the draft NWI pricing principles on recovery of capital¹¹.

The Productivity Commission discussed the recovery of water through non-market means in its March 2010 research report 'Market Mechanisms for Recovering Water in the Murray-Darling Basin'¹². The Productivity Commission found that "Funding infrastructure upgrades is generally not a cost-effective way for governments to recover water for the environment. It is also likely to be inefficient and inequitable"¹³.

The Productivity Commission observed that

"Governments can also become involved in funding or co-funding irrigation infrastructure projects. This does not in itself recover any water for the environment. ... For governments to recover water for the environment through infrastructure upgrades, they need to gain ownership of some or all of the water savings in return for the funding they provide. Where they do this, governments are effectively buying water, but with the requirement that the payment they provide be used to invest in irrigation infrastructure.

⁸ NWC *Position Statement on Sustainable Levels of Extraction*, May, 2010 (www.nwc.gov.au/www/html/2786-sustainable-levels-of-extraction.asp?)

⁹ BA 2009, Chapter 10

¹⁰ Finding 8.10, BA 2009 p 160

¹¹ Recommendation 8.8, BA 2009 p 160

¹² *Market Mechanisms for Recovering Water in the Murray-Darling Basin*, Productivity Commission Research Report, March 2010: Chapter 6 (www.pc.gov.au/projects/study/water-recovery/report)

¹³ *Ibid*, p 103

"Infrastructure upgrades frequently produce water savings at the farm or irrigation district level. Due to hydrological realities, however, these savings can be at least partly at the expense of downstream water users and/or ecosystems. These broader effects need to be taken into account when assessing the merits of recovering water through infrastructure upgrades."¹⁴

Background on the National Water Commission and the National Water Initiative:

About the National Water Commission

The National Water Commission (NWC) is an independent statutory authority within the Sustainability, Environment, Water, Population and Communities portfolio¹⁵.

Established under the *National Water Commission Act 2004*, the NWC was created to drive the national water reform agenda. It provides advice to the Council of Australian Governments (COAG) and the Australian Government on national water issues and progress in the implementation of the *Intergovernmental Agreement on a National Water Initiative (NWI)*¹⁶. The NWC considers its role as supporting and driving the sustainable management of water resources.

Since the passage of the *Water Act 2007*, the NWC also has the role of auditing the effectiveness of the implementation of the Basin Plan and the (associated) water resource plans¹⁷.

Commentary in this submission is based on the NWC's responsibilities relating to the NWI. The NWC will not offer opinion on issues that might be seen as pre-empting its audit function with respect to the Basin Plan.

The National Water Initiative

The NWI represents a joint commitment by the Commonwealth Government and all State and Territory Governments (the Parties) to make the nation's water use more efficient and sustainable, leading to greater certainty for investors, producers, communities and the environment. It is Australia's blueprint for managing the nation's water.

The NWI states that the Parties agree to implement the NWI in recognition of the continuing national imperative to increase the productivity and efficiency of Australia's water use, the need to service rural and urban communities, and to ensure the health of river and groundwater systems.

The objective of the Parties in implementing the Agreement is to provide greater certainty for investment and the environment, and underpin the capacity of Australia's water management regimes to deal with change responsively and fairly.

Under the NWI, governments have made commitments to:

- prepare water plans with provision for the environment
- deal with over-allocated or stressed water systems
- introduce registers of water rights and standards for water accounting
- expand the trade in water
- improve pricing for water storage and delivery
- meet and manage urban water demands.

The overall objective of the National Water Initiative is to achieve a nationally compatible market, regulatory and planning based system of managing surface and groundwater resources for rural and urban use that optimises economic, social and environmental outcomes¹⁸. Implementation of the National Water Initiative will achieve:

- clear and nationally-compatible characteristics for secure water access entitlements

¹⁴ Ibid, p 123

¹⁵ www.nwc.gov.au/www/html/93-roles-and-functions.asp

¹⁶ www.nwc.gov.au/www/html/117-national-water-initiative.asp

¹⁷ *Water Act 2007*: s87-90.

¹⁸ *Intergovernmental Agreement on a National Water Initiative* paragraph 23

- transparent, statutory-based water planning
- statutory provision for environmental and other public benefit outcomes, and improved environmental management practices
- the return of all currently over-allocated or overused systems to environmentally-sustainable levels of extraction
- removal of barriers to trade in water and meeting other requirements to facilitate the broadening and deepening of the water market, with an open trading market to be in place
- clarity around the assignment of risk arising from future changes in the availability of water for the consumptive pool
- a system of water accounting which is able to meet the information needs of different water systems in respect to planning, monitoring, trading, environmental management and on-farm management
- policy settings which facilitate water use efficiency and innovation in urban and rural areas
- smooth adjustment issues where reforms impact on water users and communities
- recognition of the connectivity between surface and groundwater resources and connected systems managed as a single resource.