Submission Number: 585
Date Received: 4/12/2010

NSW GOVERNMENT

PARLIAMENT OF AUSTRALIA

HOUSE STANDING COMMITTEE ON REGIONAL AUSTRALIA

INQUIRY INTO THE IMPACT OF THE MURRAY-DARLING BASIN PLAN IN REGIONAL AUSTRALIA

NSW GOVERNMENT SUBMISSION

FEBRUARY 2011

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Attachment 1

NSW Government Response to the Guide to the proposed Basin Plan

1 EXECUTIVE SUMMARY

The NSW Government is committed to working with the Commonwealth Government, other Basin States, stakeholders and Basin communities to ensure the sustainability of the Murray-Darling Basin. The NSW Government leads the way in Murray-Darling Basin reform through measures such as:

- having the largest and most open water trading market;
- sharing 90 per cent of water used in NSW through statutory water sharing plans (WSPs);
- reducing entitlements in six major groundwater systems; and,
- initiating an innovative market based environmental water recovery and active water management program that helped sustain key environmental wetlands in the Basin during unprecedented drought.

The NSW Government has already delivered over 538 GL of water for the environment through water sharing plans, *RiverBank* and other water recovery programs.

The NSW Government considers that the Inquiry by the Standing Committee on Regional Australia into the *Impact of the Murray-Darling Basin Plan in Regional Australia* provides a further significant opportunity to highlight issues that the NSW Government has identified as requiring urgent consideration by the Murray-Darling Basin Authority (MDBA) prior to the release of the draft Murray-Darling Basin (MDB) Plan.

This submission should be read in conjunction with the NSW Government's comprehensive *NSW Government Response to the Guide to the proposed Murray-Darling Basin Plan* (the '*Response*', refer Attachment 1) which was provided to the MDBA in mid December 2010.

The key issues identified in the *Response* include:

- Balancing environmental, social and economic outcomes – which will require strong and ongoing support from the MDBA and the broader Commonwealth Government programs in relation to the need for change to maintain a healthy and productive Basin. This would also need to include federally funded support for structural adjustment packages to assist in the transition for those communities unable to adapt to lower water availability.

- Transitional arrangements – recognition of, and building on, the significant NSW Government and National Water Initiative (NWI) reforms already initiated and allowing time for changes from these to take effect.

- Efficiency through infrastructure improvements – recognition of the value in investing in water infrastructure and environmental works and measures to achieve both environmental and production outcomes. Significant efficiency opportunities are available if the Commonwealth Government approves funding for the four NSW Government proposals for Sustaining the Basin (STB) Priority Projects (note: these proposals were submitted for consideration in June 2010).

- Interstate equity – the need for uniform implementation dates by Basin States. At present NSW, South Australia and Queensland are expected to comply with suggested Sustainable Diversion Limits (SDLs) by 2014 whilst Victoria will not be required to comply until 2019. Reductions in current diversion limits should be shared equitably by all States where the water sources are shared. Similarly, the purchase of water entitlements should be equitably distributed between those jurisdictions with shared water sources.

- Basin States implementation and costs – delays in finalising the MDB Plan will have a material impact on the available timeframe for Basin States to prepare compliant Water Resource Plans (WRPs). The *Guide* also suggests increased responsibilities for Basin States in the areas of compliance, enforcement, monitoring and evaluation. There is an urgent need for the Commonwealth Government to clarify its proposed level of funding support in order for Basin States to undertake these increased responsibilities.

- Access to modelling and other information – the NSW Government is still awaiting access to modelling and other detailed information in order to undertake a robust evaluation of the *Guide's* proposals. This includes:
    - assumptions underpinning the scenario modelling for the proposed SDLs;
    - methodology for translating NWI requirements into Basin planning, and in particular the assessment and management of interception;
    - evidence that supports the adoption of a 3% reduction in diversion due to climate change; and,
    - a reconciliation of the quantity of water recovered for environmental flows to date and the amount still required to achieve the proposed SDL scenarios.

- Consultation strategy – there is an urgent need for the MDBA to work with the Basin Community Committee to address significant stakeholder concerns over:
    - the methodology used to establish the SDLs in the *Guide*;
    - the need for a mutually agreed and structured engagement strategy with each of the Basin States; and,
    - the clear need for an engagement strategy for each catchment community that is tailored to that community's specific circumstances.

In addition to the feedback provided in the *Response*, the NSW Government continues to be an active participant in ongoing bi-lateral and multilateral discussions with MDBA personnel and other Basin States.

The NSW Government acknowledges and appreciates the efforts of the MDBA in facilitating these additional consultation processes, however the NSW Government is concerned that much of the information previously sought is still outstanding (refer Attachment 1 – Appendix A).
This lack of clarity continues to inhibit the efforts of the NSW Government in determining the potential social, economic and environmental impacts anticipated for NSW Basin communities.

The engagement strategy adopted by the MDBA thus far has been strongly criticised by Basin States and other key stakeholders for its lack of transparency (in terms of decision making processes) and minimal feedback. It is imperative that the MDBA demonstrates that it has considered the concerns of NSW and other Basin stakeholders in the development of the proposed MDB Plan.

A new approach is needed by the MDBA in order to restore public confidence in the Murray-Darling Basin Reform processes. The NSW Government notes that this issue has also been raised at a Ministerial Council level. As a first step to rebuilding trust relationships with stakeholders, the NSW Government considers there is merit in the Commonwealth Government directing the MDBA to make public the submissions received (approximately 3,000) on the *Guide*.

The NSW Government considers that the availability of this information may substantially inform the Terms of Reference of this *Inquiry* – and also provide valuable information that would assist Basin States' assessment of localised socio-economic impacts; improve mechanisms for ongoing stakeholder engagement; and inform the development of regionally tailored structural adjustment proposals for affected Basin communities.

There is a need to recognise and respond effectively to the significant level of frustration and uncertainty expressed by Basin communities over the release of the *Guide*. The inputs from Basin communities must be considered integral in the further development of the MDB Plan if it is to succeed.

The NSW Government welcomes the Committee's interest in understanding the direct and indirect impact of the proposed MDB Plan on regional communities and community wellbeing. In this submission (refer s6.1), the NSW Government has endeavoured to provide information on the:

- changing demographics of NSW Basin communities;
- employment and economic profiles of NSW Basin communities; and,
- existing government service delivery to NSW Basin communities.

Government service delivery is an area that was not canvassed by the MDBA in the development of the *Guide*. The NSW Government considers this policy area requires far greater consideration by the MDBA in framing the draft MDB Plan as reduced water allocations are likely to have varying impacts on community wellbeing in Basin towns which may require an enhanced response from government.

In the context of assessing community wellbeing for Basin communities the NSW Government remains concerned with the MDBA's approach in estimating the potential socio-economic impacts, particularly the absence of a base-line socio-economic assessment against which the various SDL scenarios can be measured (refer Attachment 1, s 3.3.1).

The NSW Government notes that the MDBA itself has recognised the need for a more detailed socio-economic assessment and has commissioned a consultancy to undertake further work with a view to reporting to the MDBA by mid March 2011. However the MDBA has indicated to the NSW Government that this further work will not be available to Basin States ahead of the release of the proposed MDB Plan.

The NSW Government considers it imperative that there be sufficient time available for Basin States and other stakeholders to consider the MDBA's most recent socio-economic analysis prior to the release of the draft MDB Plan. It is critical that this further socio-economic analysis has the capacity for data to be extrapolated in order to assess localised impacts in a meaningful way (i.e. reflecting areas covered under the specific WRPs). Presenting socio-economic data 'averaged' across the 19 Basin regions (the approach previously taken by the MDBA in the development of the *Guide*), is of limited use and could understate the localised socio-economic impacts (primary, secondary and tertiary) on some Basin communities. In addition, all stakeholders, including governments, should be given time to address the findings of the Inquiry

This submission, and the *Response* (refer Attachment 1), provides detail on the NSW Government's leadership in water recovery programs (refer s6.2 and s6.3). The NSW Government has emphasised the need for the MDBA to include all water recovery initiatives in the calculation of SDLs (the *Guide* only includes the 485 GL recovered under the *Living Murray Initiative*). Similarly, the delay by the Commonwealth Government in assessing the four NSW Sustaining the Basin (STB) Priority Projects is a concern as the NSW Government considers these projects would make strong additional contributions to water efficiencies and restoring environmental flows.

This submission (refer s6.2) also highlights previous issues raised with the MDBA regarding water trading and recommends changes to the *Water for the Future* program that would better align it with the objectives of the proposed MDB Plan and ensure that investments under the *Water for the Future* program are supported by a least cost planning approach that aims to maximise public benefits.

In identifying other issues for the consideration of the Committee (refer s7), the NSW Government submission highlights the need for the Commonwealth Government to work closely with the Basin States to develop localised structural assistance packages. "No net costs" are also raised in the context of the 2008 Intergovernmental Agreement (IGA) on Murray-Darling Basin Reforms as well as the issue of potential additional costs to Basin States arising from additional monitoring and compliance responsibilities (refer Attachment 1, s3.8).

In moving forward, the NSW Government reiterates its view that the eventual MDB Plan must be a flexible policy framework that reflects the unique circumstances and dynamics of the specific Basin communities. This process is extremely complex and there is a need to take the time necessary to ensure the delivery of a workable and equitable outcome for Basin stakeholders.

The final MDB Plan must allow time for industries and rural communities to adjust to a future with less available water for consumptive purposes while ensuring the continuing health and productivity of the Basin's river and groundwater systems.

RECOMMENDATIONS

1. That the MDBA urgently provides an updated timeline that allows for:
   - stakeholder comment on the MDBA's commissioned socio-economic analysis;
   - the Commonwealth and the MDBA to appropriately consider the outcomes of this Inquiry; and
   - the implementation of improved stakeholder consultation processes as discussed by the Murray-Darling Basin Ministerial Council on 17 December 2010.

2. That in line with Recommendation 1, the Commonwealth Government gives urgent consideration to extending the timeframe for the implementation of WRPs, with a view to harmonising MDB Plan commencement dates for all Basin States.

3. That the MDBA develop a revised stakeholder engagement strategy, with a priority focus on improved transparency of process, increased access to baseline information inputs (including the submissions on the Guide), and enhancing the opportunities for stakeholders and local communities to contribute.

4. That the Commonwealth Government directs the MDBA to deliver an assessment of the anticipated socio-economic impacts for Basin communities on a localised basis (i.e. specific WRPs areas).

5. That the Commonwealth Government recognises the potentially significant economic and social dislocation arising from the implementation of the MDB Plan and includes consideration of required changes to government service delivery models for Basin Communities (and implementation of associated community capacity building and wellbeing initiatives) as part of the 2008 IGA's no additional net costs provision.

6. That the Commonwealth Government considers in further detail the issues previously identified by the NSW Government over the water trading rules developed by the ACCC for the Basin Plan's water trading framework (refer Attachment 1, s3.4.5).

7. That the Commonwealth Government considers possible reforms to the Water for the Future program, specifically that:
   - further government investment in the program's buy-back infrastructure components be closely aligned with proposed SDLs and reflect best available science regarding environmental watering requirements;
   - the framework adopted for *Water for the Future* investments make the most effective use of funds and take a least cost planning approach in order to maximise net public benefits;
   - consideration be given to recover water from strategic areas to maximise environmental benefits and to purchase water directly from the market rather than through a tender process in order to lower transaction costs and minimise disruption to existing water trading systems; and,

- sufficient funding be allocated from the *Water for the Future* program to support the implementation of the MDB Plan's institutional components, such as the development of jurisdictional water resource plans within an appropriate consultative framework.

8. That the Commonwealth Government recognises the positive environmental benefits that the proposed NSW STB Priority Projects would make in terms of water savings and floodplain regulation, and directs the MDBA to incorporate these benefits in the calculation of Basin SDLs along with other NSW projects including water licence buy-backs that have delivered water savings to the environment.

9. That the Commonwealth Government develops, in close consultation with Basin States, structural adjustment packages on a localised basis (i.e. for specific WRPs areas) and includes inputs from local government authorities, business/industry, community and environmental organisations. In developing the structural adjustment packages consideration must include:

    - the development of localised Economic Development Plans supported by Workforce Development Plans to support transition of Basin communities to alternate economic bases as required;
    - social capital measures – recognising this will need to be considered on a community by community basis and include strategies for strengthening community resilience (including provision for intercommunity supports with particular focus on mental health support services and investment in community social infrastructure); and,
    - recognition of the specific cultural needs and economic circumstances of Aboriginal communities living in the Basin.

10. That the Commonwealth Government prioritises the reimbursement of accumulated costs incurred by the NSW Government as a consequence of implementing water reform processes in accordance with the 2008 IGA on Murray-Darling Basin Reform. This will ensure NSW is sufficiently resourced to implement the MDB Plan as envisaged by the MDBA.

11. That the Commonwealth Government initiates consultation with Basin States regarding the development of a multilateral implementation plan to support the agreed Commonwealth funded Murray-Darling Basin reforms via a cooperative Commonwealth/State approach (consistent with the IGA on Federal Financial Relations).

3 LIST OF ACRONYMS

ACT	Australian Capital Territory
ABS	Australian Bureau of Statistics
CEWH	Commonwealth Environmental Water Holder
COAG	Council of Australian Governments
CRC	Cooperative Research Centre
EWMP	Environmental Works and Measures Program
GL	Gigalitres
GVIAP	Gross Value of Irrigated Agricultural Production
IGA	Intergovernmental Agreement
MDBA	Murray-Darling Basin Authority
MDB	Murray-Darling Basin
MDBMC	Murray-Darling Basin Ministerial Council
NSW	New South Wales
NWI	National Water Initiative
RERP	Rivers Environmental Restoration Program
SDLs	Sustainable Diversion Limits
STB	Sustaining the Basin
TAFE	Technical and Further Education
WRPs	Water Resource Plans
WSPs	Water Sharing Plans

4 TERMS OF REFERENCE

“The Standing Committee on Regional Australia will inquire into and report on the socio-economic impact of the proposed Murray-Darling Basin Authority's 'Guide to the Proposed Basin Plan' (the Proposed Basin Plan) on regional communities, with particular reference to:

- the direct and indirect impact of the Proposed Basin Plan on regional communities, including agricultural industries, local business activity and community wellbeing;
- 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; and
- 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 Murray-Darling Basin.

In examining each of these issues, the Committee will also consider community views on:

- measures to increase water efficiency and reduce consumption and their relative cost effectiveness;
- opportunities for economic growth and diversification within regional communities; and
- previous relevant reform and structural adjustment programs and the impact on communities and regions.

This will include consultation with Local Government, Regional Development Australia, community groups and individual stakeholders to better understand the local and community issues raised by the Proposed Basin Plan.

The committee will report back to Parliament by end of May 2011.”

Source: website of the Parliament of Australia, House of Representatives, House Standing Committee on Regional Australia, Inquiry into the impact of the Murray-Darling Basin Plan in Regional Australia.

5 INTRODUCTION

The Murray-Darling Basin is Australia's most important network of wetlands and rivers, defined by the catchment areas of the Murray and Darling rivers and their many tributaries. The Basin comprises 19 specific geographic regions (including 23 river valleys), and extends over one million square kilometres of south-eastern Australia. The Basin covers three-quarters of NSW, more than half of Victoria, significant portions of Queensland and South Australia, and all of the ACT[1].

Across the Murray-Darling Basin area there is substantial diversity in the communities, population, social priorities and needs. For much of the past decade severe and prolonged drought across the Basin has resulted in a sustained period of reduced water availability. The drought has resulted in a general economic downturn in the Basin's economy, which has led to a myriad of social impacts and has been an additional factor in the long-term migratory trends of populations moving away from smaller regional towns and toward regional hubs and coastal cities.

Irrigation towns have been particularly impacted by the prolonged drought and population migration has also impacted the working age demographic in some of these communities. However, towns close to major regional centres have shown greater resilience due to their proximity to and reliance on the economy and services offered by the regional hubs.

Under the *Water Act 2007* (the Act) MDBA is required to prepare a MDB Plan as soon as practicable, which will place limits on the quantity of water that may be extracted from the Basin water resources as a whole, and also from 19 specific regions across the Basin. In establishing these limits, the Act requires the MDBA to have regard for the objectives of the NWI, the existing economic, social and environmental uses of Basin water resources, and Basin State water sharing arrangements. The object of the Act is to enable the Commonwealth, in conjunction with the Basin States and the ACT, to manage the Basin water resources in the national interest, to optimise economic, social and environmental outcomes, and to ensure the return to environmentally sustainable levels of extraction for water resources.

The MDBA released the *Guide to the proposed Basin Plan* (the *Guide*) in October 2010. The *Guide* proposed that between 3,000GL and 4,000GL would need to be returned to environmental flows to encourage the long-term sustainability of key environmental assets, and promote the future sustainability of the Basin as a whole. To this end, the *Guide* proposes SDLs for the 19 regions of the Murray-Darling Basin, which place a limit on the water that can be extracted from groundwater and surfacewater resources. Across the Basin broad cuts of between 27 per cent and 37 per cent (depending on the total quantity of water to be recovered for environmental flows) in extractive water entitlements will be required to meet the SDLs. However, these cuts are not evenly distributed across the Basin. Some regions are expected to be required to cut entitlements by up to 45 per cent, while other areas, such as the Paroo, do not need to significantly adjust water use patterns. The NSW regions that will be most impacted by cuts in extractive water will be the Murrumbidgee, Murray, Macquarie-Castlereagh, Gwydir, and Namoi regions.

[1] A map of the Basin, which is published by the Murray-Darling Basin Authority and identifies the Basin Plan's 19 regions, is accessible at http://mdba.gov.au/files/19-basin-regions-map-20100806.pdf.

Since the release of the *Guide*, the MDBA has been accepting submissions that will be used to inform the proposed MDB Plan. The MDBA has indicated that the proposed MDB Plan is likely to be released for consultation in the first quarter of 2011. In mid December 2010, the NSW Government submitted the *NSW Response to the Guide to the proposed Basin Plan* (refer Attachment 1) to the MDBA. The *Response* also included a request for additional information and data that supported the *Guide's* proposals (Attachment 1, Appendix A).

At its meeting of 17 December 2010, the Murray-Darling Basin Ministerial Council (MDBMC) agreed that the final MDB Plan was to be presented to the Australian Parliament in early 2012. According to the timeframes set out in the Act, this would require the draft MDB Plan to be finalised by the MDBA in late 2011, and submitted to the Commonwealth Minister and the MDBMC for consideration.

The NSW Government is committed to working with the Commonwealth Government towards an ecologically sustainable Basin. However on the basis of still outstanding information and the need for the MDBA to improve engagement strategies, the NSW Government considers there is a strong case for an extension to the delivery of the draft MDB Plan. The NSW Government's capacity to fully implement proposed Basin reforms will be dependent on adequate time provided to assess anticipated socio-economic impacts for NSW Basin communities, provision of Commonwealth funding for the MDB Plan's implementation as expressed under the 2008 IGA on Murray-Darling Basin Reform and sufficient time to prepare WRPs that comply with the final MDB Plan.

The NSW Government notes that implementation of the MDB Plan is required to commence as Basin State water plans expire. In NSW, Queensland and South Australia this will occur in 2014. Victoria's recently implemented water plans do not expire until 2019, which creates concerns over interstate equity regarding the implementation of cuts to extractive water allocation, which may result in water generally becoming less available and more expensive in the other States before Victoria.

The MDB Plan needs to balance the needs of the environment and rural communities. Where the environmental watering requirements of the Basin result in adverse impact on rural communities, the Commonwealth Government needs to provide appropriate structural adjustment assistance to communities as they transition to circumstances with reduced water availability. The NSW Government strongly recommends that the Commonwealth Government consults closely with Basin States, industry, regional and local communities to identify alternative employment opportunities and appropriate delivery mechanisms.

NSW Government recommendations:

1. That the MDBA urgently provides an updated timeline that allows for:
- stakeholder comment on the MDBA's commissioned socio-economic analysis;
- the Commonwealth and the MDBA to appropriately consider the outcomes of this Inquiry; and
- the implementation of improved stakeholder consultation processes as discussed by the Murray-Darling Basin Ministerial Council on 17 December 2010.

2. That in line with Recommendation 1, the Commonwealth Government gives urgent consideration to extending the timeframe for the implementation of WRPs, with a view to harmonising MDB Plan commencement dates for all Basin States

3. That the MDBA develop a revised stakeholder engagement strategy, with a priority focus on improved transparency of process, increased access to baseline information inputs (including the submissions on the Guide), and enhancing the opportunities for stakeholders and local communities to contribute.

6 RESPONSE TO TERMS OF REFERENCE

6.1 The direct and indirect impact of the proposed Basin Plan on regional communities including agricultural industries, local business activity and community well being.

The effects of the recent drought saw a large number of towns in the Basin experience economic decline, and accelerated the long-term migratory trend away from smaller regional communities, toward regional hubs and coastal cities. Severe drought impacts may assist in understanding the potential impacts of the MDB Plan. However, extractive water cuts under the MDB Plan are likely to be unevenly distributed across regions, and the resilience of individual communities is unclear.

The MDBA has acknowledged that its awareness of the potential localised socio-economic impacts of the proposed MDB Plan is limited and that it has had to rely on statistical aggregates at a Basin-wide level. The NSW Government notes that the MDBA has commissioned a further, Basin-wide social impact study, which is scheduled to be completed in mid March 2011. However the MDBA has indicated to the NSW Government that this work will not be available prior to the release of the proposed MDB Plan. The NSW Government considers it imperative that this work be done at a level that enables the identification of likely impacts at a localised (i.e.: water-resource plan) level. A Basin-aggregated approach (as used in the *Guide*) is not sufficient for evaluating localised impacts.

The NSW Government also considers it critical that this further socio-economic analysis being progressed for the MDBA includes an assessment as to the value of the environmental benefits that will accrue as a consequence of Basin reforms being implemented. The NSW Government notes that the MDBA acknowledges in the *Guide* that quantifying the value of environmental benefits (or the avoided costs of deteriorating ecosystems) is difficult and requires further consideration. It is essential that this further analysis be done in order to provide a holistic and balanced assessment as to values (benefits) and costs associated with the proposed MDB Plan.

The NSW Government notes that several of the Basin's Shire and City Councils are progressing their own social impact studies and recommends that the MDBA also take these evaluations into account.

The NSW Government encourages local communities and stakeholders to actively engage with the Commonwealth Government and the MDBA to ensure that the potential impacts on specific communities and regions are identified. As part of its consultations, the Commonwealth Government may also wish to consider engaging with the various local government authorities and the boards of Regional Development Australia, who are well positioned to advise on the localised impacts to their regions and communities.

NSW Basin demographics

ABS statistics (2006-2008) indicate that population growth in the NSW Basin regions is just over half the rate of total NSW population growth (1.6 per cent compared with

2.9 per cent)[2]. Anecdotal information suggests the drought has contributed to population migration during 2009-10. The Basin's rural towns have a comparatively high population (15 per cent) over 65 years, with only 42 per cent of the population falling within the 25-64 year age group. According to the Australian National University Centre for Aboriginal Economic Policy Research 3.5 per cent of the Basin population are Aboriginal people. That is, approximately 70,000 Aboriginal people live in the Basin making up almost half of the Aboriginal population in NSW, and 15 per cent of the Aboriginal population in Australia. There is also a significant percentage of overseas born people in the area, including refugee communities that have been settled through Australia's regional migration policy.

Declining populations in the smaller regional communities will also have population redistribution implications for larger regional centres and coastal cities, and may increase existing development pressures in coastal environments, and demand for infrastructure, government and council support services.

Employment and economy of the Basin

Overall, the Murray-Darling Basin produces 40 per cent of Australian grown food, and 30 per cent of that is from irrigation. Valued at around $2 billion per year, irrigated agriculture in the NSW Murray-Darling Basin regions is a major contributor to the regional economy and the NSW economy overall. Agriculture accounts for around 80 per cent of water used within the Basin and around 10 per cent of employment, or some 100,000 jobs. However, the sector's contribution to employment in smaller communities is more significant as the economy of rural and remote communities is commonly predominately linked to the primary industry in the region. Often these small towns are also the areas of greatest socio-economic disadvantage.

Manufacturing and processing industries are also a significant contributor to employment in the NSW Basin regions. For example, in the Murray and Murrumbidgee valleys there are over 15,000 people employed in manufacturing. Many manufacturers in the Basin are dependent upon produce from extractive water uses, and may be economically disadvantaged by a reduction in the supply of goods, due to reduced water availability. In other cases, manufacturing industries rely on the ability to draw water from rivers and channels and may be directly impacted by cuts to extractive water. In both cases the MDB Plan's proposed SDLs may impact on the economic viability of these industries, potentially resulting in closures and job losses.

The *Guide* projects the long-term, permanent employment impact of the SDLs will be approximately 800 job losses and a total annual $800 million reduction in the gross value of irrigated agricultural production (GVIAP), based on a 27 per cent reduction in diversions, and the recovery of 3,000 GL for environmental flows. However, the NSW Government is concerned that the MDBA's projected job losses and GVIAP reduction are not robust. The localised economic effects of the Basin Plan's implementation, even on a long-term permanent basis will vary substantially between communities and regions. A comprehensive, localised socio-economic analysis is needed to better understand the possible impacts on individual Basin communities and regional economies.

Stakeholder concern over employment and economic losses remains high, and is focused on the impacts of the Basin Plan in the short term. Reports from various

[2] Data source: ABS Estimated Resident Population for SLA's

stakeholder groups significantly vary in their assessment of the potential impact on employment and economic production:

- the Cotton Communities Catchment CRC estimates that a 25 per cent cut in extractive water would result in up to 14,000 jobs being lost on a national level, and that the social and economic impacts may have an annual cost of $1.4 billion[3];
- the NSW Irrigators Council estimates that a 27 per cent average cut in extractive water would result in up to 17,000 jobs lost in NSW alone, with an "annual hit to the economy of $2.4 billion"[4]; and
- the Wentworth Group of Concerned Scientists estimate that the economic impact resulting from a 30 per cent reduction in water use would be in the order of $2.7 billion (the Wentworth Group did not estimate job losses)[5].

In the NSW Murray-Darling Basin, studies commissioned by the NSW Government have developed short-run estimates of regional employment losses of 1.1[6] to 2.7[7] full-time equivalent positions for every gigalitre of water withdrawn from irrigated agriculture. Using the *Guide's* proposed range for returning environmental flows (3,000GL-4,000GL) this would amount to between 3,300 and 10,800 full-time positions being removed from irrigated agriculture with associated employment impacts on other industries which supply and service the irrigated agriculture sector and local communities more broadly. However as these studies are based on average employment per unit of irrigation water, they may overestimate the actual employment impacts of reduced water for irrigation.

As such, whilst the precise magnitude of the potential economic impacts on regional NSW arising from the 27 to 37 per cent extractive water cuts proposed by the *Guide* is uncertain, indications are that these reforms will have an adverse impact in terms of full time equivalent jobs and may have further adverse impacts on local and regional economies at a primary, secondary and tertiary level (i.e. flow on impacts on domestic supply and other retail services, decreased availability of freight services, reduced numbers of professionals, skilled workers and tradespeople).

Surrounding regional communities may also experience (to varying degrees) changes in employment and regional income.

Community well being

The impact of the Basin Plan's limits on extractive water may have a significant impact on the social well being of communities in the Basin areas. Many rural communities are already experiencing sustained social and mental health distress due to the prolonged drought, unpredictable commodity prices, increasing fuel and fertiliser prices, and recent flooding. From a social welfare perspective, extended dry periods have generated severe adverse impacts on the well being of rural

[3] Cotton Communities Catchment CRC (July 2010), *Report 4: Exploring the Relationship Between Community Resilience & Irrigated Agriculture in the MDB: Social and Economic Impacts of Reduced Irrigation Water*.
[4] Andrew Gregson (8 October 2010), NSW Irrigators CEO, Lateline transcript.
[5] The Wentworth Group of Concerned Scientists (2010), *Sustainable Diversions in the Murray-Darling Basin: An analysis of the options for achieving a sustainable diversion limit in the Murray-Darling Basin*
[6] EconSearch & CARE (2003), *The regional economic impact of the First Step Proposal of the Living Murray Initiative: case studies of Coleambally Irrigation Area and Berriquin Irrigation District: A report prepared for NSW Agriculture*.
[7] ACIL Consulting (2002), *Economic impacts of the Draft Water Sharing Plans: An independent assessment for the NSW Department of Land and Water Conservation*.

communities, which has been characterised by increased prescription drug and alcohol consumption, social isolation and negative mental and physical health impacts. These circumstances may increase the vulnerability of communities and individuals to the negative socio-economic impacts of the proposed SDLs.

Rural and remote communities naturally have heightened risk of mental health issues, as many psychosocial determinants of health are magnified by isolation, economic restructuring, perceived devaluing of rural contributions to Australian society, loss of rural community infrastructure, and unpredictable ecological conditions. Both the 15 - 24 and 55+ age groups for rural people are 30 - 50 per cent more likely to die by suicide than their urban counterparts. Decrease in precipitation of 300mm has also been associated with a 5 per cent rise in long-term mean suicide rate, and there is a risk that similar impacts could result from significant cuts to water extractions.

The local government sector is a major employer in regional NSW, and may have difficulty attracting and retaining experienced staff in areas of declining population. This situation may also impact councils' ability to fund required community infrastructure (in particular local road maintenance), and councils may require greater support via Commonwealth Financial Assistance Grants. Councils may also be expected to demonstrate leadership in assisting communities to adjust to lower-water circumstances and to attract alternative industries that are not as water dependent.

The potential impacts on councils' service delivery functions coupled with cuts to extractive water may impact on the maintenance of facilities such as grassed sporting fields, local parks, golf courses, and horse racing tracks. Maintaining a strong sporting culture and a variety of social events, particularly in small townships, is important for supporting community wellbeing and building community resilience..

Aboriginal communities

Aboriginal communities in the Basin want to see improvements in environmental health through reductions in water allocated for extraction. However, Aboriginal communities are also very seriously concerned about indirect job losses, reduction in income levels, greater competition for employment, increased strain on community services, and adverse impacts on local and regional infrastructure. The NSW Government's *Two Ways Together* Regional Reports 2009 consider that large reductions in extractive water in the Basin may lead to an increased concentration of disadvantaged Aboriginal people.

As Aboriginal communities are less likely to migrate from regions heavily impacted by the MDB Plan than non-Aboriginal communities, the impacts on Aboriginal communities may be disproportionate. The specific needs of Aboriginal communities will need to continue to be considered in the further development of the MDB Plan, and during the consideration of structural adjustment programs.

NSW Government recommendation:

4. That the Commonwealth Government directs the MDBA to deliver an assessment of the anticipated socio-economic impacts for Basin communities on a localised basis (i.e. specific WRPs areas).

NSW Government service delivery in the Basin

In the short to medium term, the provision of NSW Government services to regional communities will be crucial in assisting regional towns to economically adjust to the WRPs required under the MDB Plan (refer s7). The NSW Government's delivery of essential services (health, education, community and justice services), will focus on ameliorating potential growth in socio-economic disadvantage.

In the longer term, as populations shift and demand patterns for services change, the delivery of government services will require adaptation. Governments may need to assess the models for government services in areas with substantially declining population bases.

The NSW Government notes that the potential impacts on government service delivery are not addressed in the *Guide*. The following NSW agency assessments are a preliminary analysis only and require further detailed investigation at a regional level. This is an important piece of work that the NSW Government considers should be included in the scope of the additional socio-economic analysis commissioned by the MDBA.

Housing

There are approximately 17,000 social housing dwellings located in the NSW regions of the Murray-Darling Basin, which represents approximately 4.5 per cent of all occupied dwellings. Demand for social housing assistance in the Basin has been increasing in recent years, and increased economic pressures as a result of cuts to extractive water could result in increased pressure on the social housing sector. Continuation of the existing population migration from Basin towns toward the coast and urban areas could also place increased pressure on those housing markets, which already tend to have insufficient rental stock.

Declining regional economies may have an adverse impact on the value of housing assets. In addition, mortgage pressures may increase social disadvantage for some residents. State housing agencies may experience difficulty in maintaining existing accommodation in small towns due to the potential migration of local tradespeople, which may delay housing repairs and, as a consequence, accommodation availability.

In remote Australia there are low levels of home ownership (49.5 per cent compared to 70.9 per cent in major cities) and a high reliance on employer rental, which constitutes a significant proportion of housing in those areas. There is a risk that employer rentals may become uneconomical, and that increased unemployment may further inflate demand for low income housing and social housing programs.

Education

The NSW Murray-Darling Basin area includes over 500 government schools, of which more than 100 are one-teacher primary schools with enrolments of less than 26 students. Since 1977 there have been 89 school closures in the Basin area, a significant proportion of which were small rural schools.

A decrease in a community's economic activity coupled with a continuation of population migration would likely result in further declines in school enrolments with an associated reduction in staff, a reduced capacity to deliver a broad curriculum and possible further closures for some small schools. The combination of these impacts

may further decrease the NSW Government's ability to attract teachers and executives to work in rural and regional areas.

Health
Increased environmental flows may result in improvements to the quality of drinking water for some regional town water supplies. However, the socio-economic impacts and resultant job losses may result in significant mental health impacts for individuals and communities.

As with other social services, a shift in population demographics may require Basin States to realign health resources and infrastructure accordingly. This may risk some areas of very low population having insufficient or limited access to health and mental health facilities or expertise.

Ageing and disability services
Approximately 14.9 per cent of the population in the NSW Murray-Darling Basin is aged 65 and older, which is higher than the State average of 13.8 per cent. Disadvantaged groups, such as the frail aged and people with a disability are likely to have less opportunity to migrate, or to adjust to the impacts of the Basin Plan. The expected migration of other segments of the population is likely to result in a lack of social support in smaller regional towns, and as a result, this population segment may become further isolated from social and medical services. Regional towns are also likely to have increased difficulty in attracting non-government providers and support staff, especially specialist staff, which will place further pressure on remaining services.

Larger regional hubs may feel demand pressure and increase services as a result of migration, but it will take time for social infrastructure to accommodate population shifts. Federally funded structural adjustment packages to assist Basin communities to adjust to the SDL impacts will need to take into account the frail aged and people with a disability, either through migration assistance or allowances for special service provision.

Police, emergency and justice services
Volunteer availability for emergency service organisations, such as the State Emergency Service and the Rural Fire Service, has decreased as regional populations have declined. This has decreased the capacity of these organisations to maintain service coverage and delivery. Further declines in regional population, and volunteer numbers by extension, may exaggerate current trends and risks the capacity for emergency units to respond efficiently and effectively to natural disasters or other emergencies.

In general terms, if the MDB Plan results in the closure of businesses and greater unemployment, this may have implications for the nature and rate of crime in the affected areas (for example, increased instances of water theft), which can increase anxiety in local communities. This in turn has implications for police and other justice sector agencies in terms of their resourcing and strategy. In the civil sphere, the closure of business and greater unemployment may also result in an increase in debt recovery and mortgage foreclosure actions.

As with other areas of government service delivery, changes to population patterns and demand for services may necessitate adaptive responses in the delivery of police and justice services.

Transport and roads

As a result of changing patterns of population settlement, State transport agencies may need to reconsider the demand and viability of regular freight and passenger transport routes. In some areas, some modes of transport may become uneconomical as demand for services decrease. Changes to passenger and freight transport patterns will also necessitate changing priorities for ongoing maintenance of road and rail networks.

Water is an integral element in the repair and maintenance of road networks. In the past, insufficient access to water for road works (for example due to drought restrictions) has meant that State agencies have been unable to maintain roads in regional NSW, or the cost of doing so has increased substantially to account for water haulage. This is already a factor for maintenance of roads around Broken Hill during drought periods and may extend further as water availability diminishes. Similar issues apply for rail maintenance.

Throughout NSW there is an extensive network of school buses and local and community transport services for disadvantaged groups in the community. Taxi services also provide an important form of transport for sections of the community without access to a private vehicle. The potential for decreased population and economic circumstances in regional areas may result in disruptions in community transport networks. If such services are to continue they may require additional subsidisation, for example to enable school bus networks to operate over a wider area, for fewer students. Decreased demand for taxi services may impact the economic viability of those businesses.

Remote and regional airports provide an important service to regional NSW, enabling rapid movement of specialist services and goods, particularly medical personnel. Community patterns of demand for regional air services may change as populations migrate as a result of the MDB Plan. The ongoing use and viability of regional airports will need to be considered.

NSW Government recommendation:

5. That the Commonwealth Government recognises the potentially significant economic and social dislocation arising from the implementation of the MDB Plan and includes consideration of required changes to government service delivery models for Basin Communities (and implementation of associated community capacity building and wellbeing initiatives) as part of the 2008 IGA's no additional net costs provision.

Ultimately, the magnitude and distribution of localised impacts associated with Basin Plan, and the resultant impact on government service delivery will be greatly influenced by many factors which are currently uncertain, including but not limited to the:

- location, magnitude and timing of future water buy-backs;

- individual commercial decisions to changing water availability, such as moving from irrigated agriculture to less water intensive production;
- potential for the reallocation of capital from water buybacks to be injected into new business ventures;
- efficiency and magnitude of government and industry expenditure on more efficient irrigation infrastructure;
- decisions taken by regional water suppliers on rationalisation of infrastructure; and,
- impacts of WRPs and the resultant reliability of future water allocations.

6.2 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 15 years.

Summary of the *Guide's* environmental flow proposals

The *Guide* proposes that the MDB Plan will deliver between 3,000 GL and 4,000 GL for environmental flows, which will meet the requirements of the Act without "unacceptable socio-economic impacts". Table 1 summarises the anticipated environmental outcomes as outlined in the *Guide*.

Table 1 – Estimated environmental outcomes for different water recovery conditions[8]

Indicator	Current condition	Additional water for the environment	Predicted environmental outcome
End-of-system flows	• Good – Paroo and Warrego • Moderate – Moonie, Border Rivers, Namoi, Macquarie, Lachlan, • Poor – Gwydir, Condamine-Balonne, Barwon-Darling, Murrumbidgee, Lower Darling, Murray NB: All valleys would be 'good' under a without-development scenario or with reductions of 7,600 GL.	3,000 GL	Substantial improvement in all valleys. Condamine-Balonne, Gwydir, Lower Darling and Murray valleys still rated 'poor', although they would be improved compared with the current condition (same as 3,500 GL scenario)
		3,500 GL	Substantial improvement in all valleys. Condamine-Balonne, Gwydir, Lower Darling and Murray valleys still rated 'poor', although they would be improved compared with the current condition (same as 3,000 GL scenario)
		4,000 GL	Significant improvement in all valleys. Only Gwydir and Lower Darling valleys rated 'poor'.
Waterbird populations	20% of pre-development population	3,000 GL	Slow the decline and maintain current abundance
		3,500 GL	Slow increase in waterbird numbers
		4,000 GL	Steady increase in waterbird numbers
Native fish	10% of pre-development populations, more that half of the native species are considered threatened and high proportion of alien species	3,000 GL	Unspecified level of improvement in abundance, connectivity for migration, resilience to drought and recovery of threatened species.
		3,500 GL	More improvement than 3000GL scenario
		4,000 GL	More improvement than 3,500GL scenario
River red gum	Significant decline in 'good' condition of communities • e.g. 29% of Living Murray Icon Sites, 5% of Macquarie Marshes. • Uses current condition as benchmark for assessing outcomes.	3,000 GL	Less than 75% of red gum communities restored to good condition
		3,500 GL	Less than 75% of red gum communities restored to good condition
		4,000 GL	75% of red gum communities restored to good condition
Murray Mouth opening	Open 64% of years (Compared with 97% of years pre-development)	3,000 GL	Open 90% of years
		3,500 GL	Open 91% of years
		4,000 GL	Open 92% of years

[8] This data is drawn from Volume 1 of the *Guide to the proposed Basin Plan*, MDBA.

The NSW Government acknowledges that restoration of floodplain flows and other aspects of the natural flow regime should benefit in-stream river health, including improving conditions and opportunities for fish breeding and migration, improving the condition of key wetlands habitats and providing suitable conditions for more frequent and larger scale waterbird breeding events.

However the NSW Government is concerned that the MDBA has not recognised the extensive efforts of the Commonwealth, Basin States, water licence holders and conservation groups in improving environmental outcomes in the Basin (with the exception of the 485 GL recovered under *The Living Murray Initiative*). These policies, projects and initiatives (which include *Water for Rivers, Riverbank* and the *NSW Wetland Recovery Program),* are already recovering water for the environment in NSW, and their acknowledgement by the MDBA would reduce the impact of SDLs targets on some Basin stakeholders and communities.

The NSW Government leads the nation in water reform and environmental water management and has demonstrated repeated success in achieving environmental outcomes. Examples of the NSW Government's successfully implemented policies and projects are outlined in section 6.3.

Options for improvements to water trading in the Basin

NSW has instituted a world leading water market system that enables NSW water users to trade their water entitlements temporarily or permanently. This means that water is used where it is of most value. The National Water Commission has reported[9] that water trading has helped individual irrigators (buyers and sellers) manage and respond to drought.

Water trading markets have a role in mitigating the impacts of reduced water availability and fostering water use efficiency improvements. Despite the low allocations received by irrigators during the recent drought, the volume of trade in allocations in 2008-09 (valued at $2 billion) generated significant economic returns to buyers and sellers and mitigated the potential reduction in the economic value of irrigated agriculture.

The MDB Plan proposes to implement a whole-of-Basin water market, and the ACCC has developed a single set of proposed trading rules under which the national market would operate. The NSW Government has previously raised concerns with the ACCC over the MDB Plan's proposed water trading rules and has sought clarity from the MDBA as to how these issues will be addressed (refer Attachment 1, section 3.4.5).

Specific issues include:

- the NSW Government believes that it is necessary to have some limited restrictions to trade based on intended use, in particular where this might impact on critical human water needs;
- the MDBA proposes that there should be no volumetric limits on trade such as the four per cent interim threshold limit on trade in permanent entitlements out of irrigation areas. This limit has been removed in all States except Victoria, which has previously indicated that it intends to phase out the limit from July 2011 to 2014;

[9] National Water Commission (2010), *Impacts of water trading in the southern Murray-Darling Basin*.

- the NSW Government is concerned about the potential for interstate inequities and competitive advantages arising from the variance in the timing for Basin States regarding the implementation of WRPs;
- as part of the WRP requirements, the Guide refers to the consideration of third party impacts between the environment and consumptive users. The NSW Government believes that this should also be a consideration for trade between consumptive users;
- the NSW Government has detailed processes, procedures and systems for enabling water trade intrastate and interstate which are generally consistent with the 2008 IGA on Murray-Darling Basin Reform. The NSW Government expects that the MDB Plan will uphold these rules and extend them over the whole Basin to ensure consistency in practice as well as terminology. The NSW Government notes that trade is incorporated into the NSW Government's water accounting systems, and that any changes to trade and associated accounting due to the water trading rules will create significant costs and workload for NSW; and,
- the water market trading rules do not incorporate interception into water trading markets. The MDBA has not undertaken investigations into the development of property rights and water trading markets for landscape interception.

The Productivity Commission[10] has proposed that current efforts to source environmental water through water trading could be more effective if it were supplemented with additional water trading products, such as seasonal allocations, leases and options, forwards contracts and covenants, and tenders for ecosystem services and water-related products. Industry and Investment NSW has conducted a preliminary economic investigation into market mechanisms for recovering water. The findings suggest there is merit in the Commonwealth Government investigating the acquisition of environmental water through such water trading products (based on allocation thresholds) as a more cost effective strategy to achieving environmental benefits relative to outright entitlement purchase. Whether such water products can provide a more cost effective solution to meeting environmental requirements depends on the environment and the irrigation sector having inter-seasonal differences in consumptive demand.

NSW Government recommendation:

6. That the Commonwealth Government considers in further detail the issues previously identified by the NSW Government over the water trading rules developed by the ACCC for the Basin Plan's water trading framework (refer Attachment 1, s3.4.5).

Options to develop the *Water for the Future* program

The Commonwealth Government's $12.9 billion *Water for the Future* program is acquiring water for the environment by purchasing entitlements from willing sellers and by investing in more efficient infrastructure to achieve water savings. In addition, the *Water for the Future National Partnership Agreement* allows for funding from the *Water for the Future* initiative to be provided to States and Territories to assist them to undertake projects that promote and facilitate the implementation of NWI commitments and continued progress and outcomes in water reform.

[10] Productivity Commission (2006), *Rural Water Use and the Environment: The Role of Market Mechanisms*.

However, the *Water for the Future* program has been developed in isolation from the MDB Plan and although the broad objectives are similar, the two policy processes are not well aligned. The Basin Plan has revealed many uncertainties and knowledge based risks which will require investment to enable change to occur efficiently and with minimal risk. The *Water for the Future* program has no dedicated allocation to this function despite its importance to advancing the objectives of Murray-Darling Basin reform. The NSW Government considers that *Water for the Future* could be better directed to target future entitlement purchases and infrastructure investment in regions that would may ease the impact of the proposed SDLs on Basin industries and communities.

The NSW Government recommends that the Commonwealth Government considers the following reforms to the *Water for the Future* program:

- that further government investment in the program's buy-back and infrastructure investment components should be closely aligned with the proposed SDLs, and reflect best available science regarding environmental watering requirements;
- that a framework should be adopted for *Water for the Future* investments that makes the most effective use of funds and takes a least cost planning approach, in order to maximise net public benefits;
- that water should be purchased directly from the market, rather than through a tender process, in order to lower transactions costs and cause less disruption to existing water trading systems;
- that funding needs to be allocated from the *Water for the Future* program sufficient to support the knowledge and science requirements to address the localised and regional uncertainties of water management research; and
- that sufficient funding needs to be allocated from the *Water for the Future* program to support the implementation of the MDB Plan's institutional components, such as the development of jurisdictional WRPs within an appropriate consultative framework.

The NSW Government is proud of its environmental and water management achievements to date. The NSW Government acknowledges its cooperative partnerships with the Commonwealth Government, which has allocated funding to the NSW Government to develop and implement successful joint projects and initiatives, such as the *NSW Rivers Environmental Restoration Program* (RERP) (refer to section 6.3 for other examples).

The NSW Government would welcome further opportunities to work in partnership with the Commonwealth Government to develop and deliver water-saving measures or environmental water returns in regions across the NSW Basin.

NSW Government recommendation:

7. That the Commonwealth Government considers possible reforms to the Water for the Future program, specifically that:

- further government investment in the program's buy-back infrastructure components be closely aligned with proposed SDLs and reflect best available science regarding environmental watering requirements;

- the framework adopted for *Water for the Future* investments make the most effective use of funds and take a least cost planning approach in order to maximise net public benefits;
- consideration be given to recover water from strategic areas to maximise environmental benefits and to purchase water directly from the market rather than through a tender process in order to lower transaction costs and minimise disruption to existing water trading systems; and,

- sufficient funding be allocated from the *Water for the Future* program to support the implementation of the MDB Plan's institutional components, such as the development of jurisdictional water resource plans within an appropriate consultative framework.

6.3 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 Murray-Darling Basin.

Water is a limited resource that must be allocated for immediate needs and managed for long-term economic and environmental sustainability. In an unpredictable climatic environment, and with increasing demands for water allocation, sound policies are required to ensure a sustainable supply of water for current usage and for future generations.

The NSW Government has adopted a staged and strategic approach to recovering water for the environment while balancing social, economic and environmental outcomes. The NSW Government's multi-pronged approach includes:

- reform of water licences and allocating water to the environment through WSPs;
- purchasing water licences for the environment;
- implementing water efficient infrastructure;
- implementing environmental works and measures; and
- property purchases.

At the same time as developing and implementing these water management programs, the NSW Government has managed to sustain rural NSW communities during the worst drought on record.

Through the 2008 IGA on Murray-Darling Basin Reform, the Commonwealth Government agreed in-principle to provide the NSW Government with $1.358 billion to deliver water savings infrastructure. The NSW Government has provided the Commonwealth Government with four detailed business cases that seek total funding of $708 million for the NSW Government Sustaining the Basin (STB) Priority Projects. These projects include the delivery of new infrastructure and technologies that will support improved water efficiency in the Basin.

Licence reform and allocating water to the environment
The NSW Government has:

- reformed the water licensing system: water licences have been converted to ensure that the licence entitlement is based on the volume of water taken, rather than the area of land to be irrigated; and so that water licences are no longer tied to the land and can be separately traded on the water market. A range of water trading products have also been developed to expand opportunities for water trading;
- introduced the *Water Management Act 2000*, which allocates and provides water for the environmental health of NSW rivers and groundwater systems, while also providing licence holders with more secure access to water and greater opportunities to trade water. In particular, the NSW *Water Management Act 2000* provides an incentive for licensed water holders to improve their water use efficiency, and sell their excess water licences or annual allocations on the water market; and,

- developed and implemented statutory WSPs for all major regulated river and alluvial groundwater systems, and for a number of unregulated rivers.

The implementation of statutory WSPs has been a substantial undertaking for the NSW Government, with all plans including environmental water provisions, setting rules to limit total water extraction and governing how water can be extracted and traded for a ten year period. The plan rules, implemented through the WSPs for each river valley, enable the equitable sharing of available water between users, while also providing water for environmental needs. Consistent with Section 5 of the *Water Management Act 2000*, development of these rules takes into account competing water uses to achieve optimum economic, environmental and social benefits. The NSW Government has also used WSPs to reduce over-allocated water entitlements in the inland alluvial groundwater systems. Over the long term, the WSPs for regulated rivers will return, on average, an additional 220 GL of water per year to the environment (refer Attachment 1, section 3.3, 3.3.1).

In NSW, communities and water users are closely involved in consultation during the development of WSPs. Stakeholder views are incorporated into plans and decision making processes and water users are well informed and have an expectation of continued involvement in decision making (refer Attachment 1, section 2.1).

The NSW Government is currently finalising a floodplain water harvesting policy to ensure that the capture, storage and use of floodwaters will be properly licensed, controlled and accounted for. The *Healthy Floodplains* project which has been submitted to the Commonwealth Government for funding as one of the NSW Government's STB priority projects will accelerate the implementation of the floodplain water harvesting policy, providing significant environmental benefits by protecting overland flows.

Purchase of water licences for the environment

In 2005, the NSW Government announced *NSW RiverBank*, a $101.5 million program to buy water for NSW's most stressed and valued inland rivers and wetlands. *RiverBank* was the first program dedicated to the purchase of environmental water entitlements in Australia and remains the largest dedicated fund for environmental water purchase at the State level. *RiverBank* prioritises its acquisition of water licences based on the conservation and cultural significance of rivers and wetlands, the water supply risk posed to those values, and other factors such as the potential for developing strategic alliances with other stakeholders.

The purchase of water licences, from only willing sellers, creates an equitable adjustment mechanism that increases the share of the water for the environment and enables water entitlement holders to benefit from, and adjust to, reductions in available water for consumptive use. The purchase of water access licences is also a significant element of the NSW's Government's commitment to rehabilitation and protection of stressed rivers and wetlands (refer Attachment 1, section 2.4).

In 2007, the Commonwealth Government supported the purchase of water by NSW *RiverBank* through the *Rivers Environmental Restoration Program* (RERP). Of the Commonwealth Government's $80 million funding for RERP, $46 million was devoted to water purchase through NSW *RiverBank*. The remaining funds were invested in a diverse suite of projects including wetland research and management

tools, environmental water management infrastructure, purchase of key wetlands and improved management of wetlands for environmental and cultural objectives.

In 2009, the NSW Government signed a Memorandum of Understanding with the Commonwealth Environmental Water Holder (CEWH) to facilitate the cooperative use of water held by the NSW Government and the Commonwealth Government. The NSW Government and the CEWH are now substantial holders of water access entitlements in valleys such as the Gwydir, Macquarie and Lachlan, and control around 15 – 20 per cent of general security entitlements in these valleys.

Implementation of water efficient infrastructure

Water recovery through investment in infrastructure is occurring under NSW and inter-jurisdictional programs including *Pipeline NSW*, *The Living Murray* and *Water for Rivers Initiatives*. For example, the Darling Anabranch Pipeline flow project is a major NSW initiative that, with the agreement of the adjacent landowners and the regional community, will return some 460km of degraded water course to a more natural ephemeral system. This is being achieved through the construction of a stock and domestic water supply pipeline to supply landholder needs, the removal of in-stream structures from within the anabranch and the management of flows from Lake Cawndilla to mimic a more natural flow regime. The project has a total budget of approximately $54 million and is part of *The Living Murray Initiative*. The Darling Anabranch Pipeline will save up to 47 GL per year of water for contribution to environmental flows.

NSW STB Priority Projects

Through the 2008 IGA on Murray-Darling Basin Reform, the Commonwealth Government agreed in-principle to provide the NSW Government with $1.358 billion to implement water savings infrastructure, subject to proposed projects meeting due diligence requirements. This included $708 million for the NSW Government STB Projects which include:

- the Basin Pipe project– up to $137 million for the piping of stock and domestic water supply systems. This project would replace water delivery through natural ephemeral streams or open channels with a piped supply, allowing these streams to return to natural wet / dry regimes and reduce transmission losses;
- the Irrigated Farm Modernisation project – up to $300 million for projects which will increase water use efficiency of irrigated agriculture in NSW. This project will invest in management, information and technological farm infrastructure where it improves water use efficiency, makes water savings and increases water related productivity of the irrigated farming system;
- the Metering project – up to $221 million for the replacement of 6,000 existing meters on regulated rivers, and to install or upgrade about 9,500 meters on groundwater bores or on unregulated rivers. The high-tech replacement meters will measure the amount of water taken water sources, are highly accurate, tamper-proof and low maintenance. The metering project will reduce the incidence of inaccurately metered extractions and will minimise water theft; and
- the Healthy Floodplains project – up to $50 million for the delivery of reforms to the management of water on floodplains through modifications of floodplain structures and control of extractions.

Once implemented, these projects will generate water savings and regulate floodplain extractions which will offset the impact of the proposed SDLs on industry and communities. The NSW Government submitted (consistent with the timelines required by the Commonwealth Government) a project plan for the business cases in 2009 and then detailed business cases on each project on 6 June 2010. To date, the NSW Government has only received the Commonwealth Government's draft due diligence assessments which require further changes to the projects. The lengthy assessment process is of concern given these projects were first proposed and agreed to in principle in 2008. The lack of a decision by the Commonwealth Government as to their funding status has delayed opportunities to achieve water efficiency gains without loss of regional productive capabilities. The NSW Government considers that investment in these projects has capacity to reduce the socio-economic impacts of the MDB Plan.

NSW Government recommendation:

8. That the Commonwealth Government recognises the positive environmental benefits that the proposed NSW STB Priority Projects would make in terms of water savings and floodplain regulation, and directs the MDBA to incorporate these benefits in the calculation of Basin SDLs along with other NSW projects including water licence buy-backs that have delivered water savings to the environment.

Environmental works and measures

During the last drought, NSW and the Commonwealth environmental water licences, along with environmental water allocations accounts and other licence holders, received very low allocations. During times of low environmental flows, environmental works and measures are an important tool that can be used to maximise the use of any available environmental water (refer Attachment 1, section 2.3).

The Environmental Works and Measures Program (EWMP) (part of *The Living Murray* initiative) is a package of structural and operational measures primarily targeted at six iconic sites, designed to complement the environmental water recovery and maximise environmental flow benefits. This program began in 2003 with $150 million in funding. It was supplemented with additional Commonwealth investment announced in 2006, bringing the total budget to approximately $275 million. NSW's EWMP projects include works to enhance the capacity to deliver water within the Koondrook-Pericoota and Millewa Forests, and fishways within the Murray River.

The NSW RERP is investing $10 million in improving environmental management infrastructure. Key achievements to date include:

- completion of significant infrastructure projects on Yanga National Park (Lowbidgee);
- completion of regulators on Muggabar and Merrimajeel Creeks (Lachlan River);
- commencement of construction of the Marebone Weir fishway (Macquarie River) and Tarabar fishway (Yanco Creek); and
- installation of a new non-potable water supply network to homesteads along the Gingham watercourse (Gwydir River).

Other environmental works were undertaken through the $26.8 million *Wetland Recovery Program*, which funded research and management tools, wetland management plans, infrastructure projects to recover water and improve environmental water management, and weed control and grazing projects to improve the health of the Gwydir Wetlands and Macquarie Marshes.

Property purchases

The NSW Government also has a policy of purchasing properties containing important wetlands with high conservation values. These have included wetlands at Yanga (Murrumbidgee), Pillicawarrina (Macquarie Marshes), Booligal (Lachlan), Geramy (Lachlan), Old Dromana (Gwydir) and Toorale (Warrego/Darling floodplain). A number of these properties also contain significant water licences. Yanga Station on the Lowbidgee floodplain was purchased using NSW Government funds and the other properties were purchased with Commonwealth assistance under the RERP and *Water for the Future* programs.

The NSW Government is aware of the potential for the further strategic purchase of properties that will enable the recovery of water for the environment and enable the improved delivery of water to environmental assets.

Water management research

Through Industry and Investment NSW, the NSW Government has significant research, development and extension (RD&E) capacity in water management.

Within NSW there are 6 major research institutes located within the Basin, employing approximately 70 full time staff working on research that covers interception, economic analysis, aquatic ecology, strategies to reduce losses in irrigation systems and modernising farm infrastructure to improve water productivity.

The NSW Government (through I&I NSW) operates a network of eight hydrology research sites in headwater catchments which has been assessing hydrology data for over 10 years on the impact of land use on interception.

However, the NSW Government notes that the national coordination of RD&E capacity in water research has been reduced in recent years (for example, the termination of Land and Water Australia and the CRC Irrigation Futures), and that no funding was allocated from *Water for the Future* for research purposes. Without financial support to replace lost capacity, the research sector's capacity to develop and deliver new technologies aimed at supporting water efficiency within the Murray-Darling Basin will be limited.

Further, because of the very low irrigation allocations over the last 10 years, and the resultant decline in incomes, grower levies to organisations such as the Rural Industries Research and Development Corporation have declined significantly. This trend may be further exacerbated by the exit of more primary producers under the anticipated reductions in the SDLs.

7 OTHER ISSUES FOR CONSIDERATION

The NSW Government would appreciate the Committee's consideration of several issues related to the Terms of Reference and the delivery of the MDB Plan, including:

- the Commonwealth's anticipated structural adjustment policy packages;
- the NSW Government's *Response* on the *Guide to the proposed Basin Plan* (refer Attachment 1); and,
- the 'no additional net costs' principle of the 2008 IGA on Murray-Darling Basin Reform.

The NSW Government considers that these issues are integral to the successful delivery of the MDB Plan. The absence of their resolution presents a risk that the potential impacts of the MDB Plan on communities and industries will be magnified and the delivery of the water management reform objectives of the *Water Act 2007* may be compromised.

Commonwealth funded structural adjustment packages

Regional communities need to be supported to deal with the potentially significant repercussions of the MDB Plan's proposals. Under the terms of the 2008 IGA on Murray-Darling Basin Reform it is the clear responsibility of the Commonwealth Government to consider the impacts of the MDB Plan on regional Australia and introduce policies and measures that support communities to adjust to the proposed SDLs. The Commonwealth Government has not yet indicated how it intends to fund, develop or provide structural assistance to Basin communities. Without advice on the support that they can expect, stakeholders cannot reasonably assess the MDB Plan's proposals from an informed position, or consider options for meeting the environmental water targets.

The NSW Government strongly recommends that the Commonwealth Government:

- undertakes a substantial localised assessment of the socio-economic impacts of the proposed MDB Plan on individuals, local communities, industry, employment, food production and the broader economy; and
- in developing structural adjustment packages, consults closely with Basin States, industry, and local communities to identify alternative employment opportunities and appropriate delivery mechanisms for targeted and effective assistance.

In developing and implementing the MDB Plan structural adjustment packages, the NSW Government recommends that the Commonwealth Government considers a range of issues, including:

- the staged implementation of MDB Plan SDLs to provide a level of predictability and allow the adjustment of communities, businesses and families to be clearly planned;
- development of structural adjustment packages that encompass not just infrastructure, but also capacity building processes for communities noting that this will be a long and uncertain process, unique for each community and difficult for the more vulnerable. The capacity building component of the package will need to address whole communities, and should seek the

participation of as much of the community as possible, to promote resilience and build social capital;

- recognition of the NSW Government's experience in developing and implementing models for building rural community mental health resilience and intercommunity supports (such as the Drought Mental Health Assistance project), and noting that these models may be adapted to assist Basin communities;
- the need for Regional Economic Development Plans supported by Workforce Development Plans for Basin communities that is underpinned by structural adjustment funding to support any transition from the region's current agricultural economic base. TAFE NSW can play a key role in this transition process through focused and customised training delivery;
- recognition that mitigation measures are less likely to assist Aboriginal people to adjust to the changing social and economic circumstances, as Aboriginal people are less likely to be directly eligible for compensation. In general, Aboriginal people are not well represented on decision making bodies with control of planning for the future. As a consequence, Aboriginal interests are not as likely to be at the fore of long-term planning, and there is a risk that Aboriginal interests will not be appropriately represented in consultations on the impacts of the Basin Plan and the structural adjustment packages; and
- the importance of ongoing public education and communication about issues, decisions and impacts, to ensure informed public discussions.

NSW experience in structural adjustment delivery

The Commonwealth Government has responsibility for funding the structural adjustment packages for Basin communities. However, the NSW Government has strong experience in developing and implementing similar programs. The NSW Government is prepared to assist in the development and delivery of Commonwealth funded structural adjustment policy packages for Basin communities.

Examples of the NSW Government experience include:

- the *Water Reform Structural Adjustment Program (1997-2005):* This scheme was designed to educate and train irrigators in farm water use efficiency management and technologies and provide funding assistance for the preparation of farm water use efficiency plans, and the adoption of water efficient irrigation and management technologies. The program was a complementary component of NSW water reforms and accompanied the introduction of the Water Management Act 2000 and development and establishment of Water Sharing Plans. The NSW Auditor-General review of the program in 2007 concluded that "it was effective in increasing grower awareness of water use efficiency options and technologies and in educating and training irrigators in farm water resources planning and management"[11].
- the *Regional Economic Transition Scheme*: This scheme aims to assist and attract alternative industries following the closure or significant downsizing of a major regional employer. It was utilised to assist in attracting new industries to Inverell following the closure of a pet food manufacturing facility, including

[11] NSW Auditor-General's Report, Performance Audit, November 2007, 'Improving Efficiency of Irrigation Water Use on Farms' NSW Department of Primary Industries

leveraging a legacy from the exiting company to establish an Inverell Business Attraction Fund; and

- the *Water Adjustment Innovation Fund*: This fund supports the development of innovative products and services by business in regions where water availability is a challenge. Projects funded have included development or application of technologies which can generate water savings for industry applications. Following a major business closure, rapid response teams are put in place by the NSW Government to ensure the needs of employees and business suppliers are understood and steps such as training accreditation is put in place immediately in response to local needs.

The NSW Government's approach to regional business development has a number of key elements:

- Regional Business Growth Plans are in place across the State which highlights opportunities and challenges for business growth in the respective regions and highlighting short-term strategies to overcome constraints to new business investment;
- programs and services delivered to regions through a network of offices across the State that facilitate business growth and establishment;
- special initiatives that promote and leverage identified regional opportunities, for example matching food buyers to local suppliers; and
- strong partnerships with local government to pursue local industry development opportunities.

NSW Recommendation:

9. That the Commonwealth Government develops in close consultation with Basin States, structural adjustment packages on a localised basis (i.e. for specific WRPs areas) and includes inputs from local government authorities, business/industry, community and environmental organisations. In developing the structural adjustment packages consideration must include:

- the development of localised Economic Development Plans supported by Workforce Development Plans to support transition of Basin communities to alternate economic bases as required;

- social capital measures – recognising that this will need to be considered on a community by community basis and include strategies for strengthening community resilience (including provision for intercommunity supports with particular focus on mental health support services and investment in community social infrastructure); and,

- recognition of the specific cultural needs and economic circumstances of Aboriginal communities living in the Basin.

NSW Government *Response to the Guide to the proposed Basin Plan*

The NSW Government has identified a number of concerns regarding the content and proposals in the *Guide,* which are outlined in the *Response* (Attachment 1). In particular, the *Response* notes that the NSW Government has encountered significant difficulty in assessing the *Guide's* proposals as the detailed modelling and data behind the SDL figures, environmental water requirements, interception

activities, climate change, and the WRP requirements has not been made publicly available by the MDBA. The NSW Government considers there is merit in the Commonwealth Government directing the MDBA to make the 3000 submissions received on the *Guide* publicly available as they may substantially assist Basin State's understanding of the issues being raised by Basin communities.

The NSW Government is concerned that in developing the *Guide* the MDBA has not thoroughly consulted with Basin States on technical details. The NSW Government has requested that the MDBA constructively engage with NSW's technical experts on various aspects of the MDB Plan. Since the release of the *Guide*, the MDBA has commenced technical engagement with Basin States. However, interactions to date have been limited and have not directly engaged in detailed technical issues to the extent sought by NSW officers. In 2011, the NSW Government anticipates more detailed and direct consultation with MDBA officers, and rigorous critique and assessment of the data underlying the MDB Plan proposals and the methodologies used to determine the water needs of environmental assets and the SDLs.

The *Response* includes a detailed summary of information urgently required in order for the NSW Government to complete its assessment of the *Guide's* proposals (refer Attachment 1, Appendix A).

The NSW Government also raises the following issues regarding the policy development process of the MDB Plan:

- in order to support better informed and transparent decisions regarding the Murray-Darling Basin's future sustainability, the proposed MDB Plan will need to be supported by a stronger analytical framework that clearly specifies objectives, details risks to achieving these objectives, examines existing reforms and their progress, and comprehensively assesses the costs and benefits of proposed MDB Plan reforms;
- significant benefit would arise from the development of a social and economic baseline against which a 'MDB Plan policy' is compared. The policy comparison should consider the current policies and initiatives being implemented by the States, including *The Living Murray Initiative*, other water recovery programs, and the implementation of the NWI and the NSW WSPs;
- the MDBA has acknowledged that its socio-economic analysis is not robust, and does not adequately consider localised or community impacts. Since the release of the *Guide*, the MDBA has commissioned further work on the socio-economic impacts (due for completion by mid March 2011). The NSW Government understands this socio-economic analysis will assess the potential impacts of the MDB Plan proposals, and conduct a cost-benefit analysis, for each of the 19 Basin regions. The NSW Government welcomes this work, however is concerned that the analysis may not sufficiently consider the specific localised impacts on Basin communities, instead focusing only on broader regional impacts. The NSW Government is also concerned with advice from the MDBA that Basin States will not have access to this latest socio-economic analysis ahead of the release of the draft MDB Plan; and
- the MDB Plan will contain an Environmental Watering Plan, a Water Quality and Salinity Management Plan, water trading rules and WRP requirements. Each of these plans will need to be developed for each WRP region, which will require Basin States to undertake substantial work that previously was not required.

There are also expected to be significant auditing and monitoring requirements. These various requirements will involve significant costs. The NSW Government is concerned that delays by the MDBA in completing the final MDB Plan (without extending the allowable timeframe for the preparation of WRPs) may compromise Basin States' ability to prepare compliant WRPs.

No additional net costs

The 2008 IGA on Murray-Darling Basin Reform states that the Basin States would not bear additional net costs as a consequence of the water reforms and the implementation of the Act. However, despite the IGA being in place for over two years, and NSW Government agencies having undertaken a range of new activities associated with the reforms, the Commonwealth Government has yet to reimburse the NSW Government for any of the associated costs, with the exception of water shepherding and the development of business cases for the NSW STB Priority Projects.

The NSW Government supports the COAG Reform Council's view[12] that payment arrangements under the IGA should be consistent with the conventional format and design principles for National Partnerships, as established under the IGA on Federal Financial Relations. Several of the reform outcomes specified in Part 4 of the 2008 IGA on Murray-Darling Basin Reform involve collaborative efforts by jurisdictions, and would be suited to a multilateral implementation plan with milestones tailored to the obligations of specific jurisdictions. The NSW Government suggests that facilitation payments (under the conventional National Partnership model) would provide a more effective way to assess costs and fund reforms. The COAG Reform Council suggests that this issue could be overcome by restructuring the payment arrangements consistent with the federal financial relations framework so that facilitation or incentive payments are provided from water reforms, separate from project payments for the water projects. The NSW Government recommends that the Commonwealth Government initiate consultation with the Basin States to develop implementation plans that are consistent with the framework established under the IGA on Federal Financial Relations.

NSW Government recommendations:

10. That the Commonwealth Government prioritises the reimbursement of accumulated costs incurred by the NSW Government as a consequence of implementing water reform processes in accordance with the 2008 IGA on Murray-Darling Basin Reform. This will ensure NSW is sufficiently resourced to implement the MDB Plan as envisaged by the MDBA.

11. That the Commonwealth Government initiates consultation with Basin States regarding the development of a multilateral implementation plan to support the agreed Commonwealth funded Murray-Darling Basin reforms via a cooperative Commonwealth/State approach (consistent with the IGA on Federal Financial Relations).

[12] COAG Reform Council (2010), *Water Management Partnerships: Report on Performance 2009*.

8 CONCLUSION

In moving forward, the NSW Government reiterates its view that the final MDB Plan must be a flexible policy framework that reflects the unique circumstances and dynamics of the specific Basin communities. This process is extremely complex and there is a need to take the time necessary to ensure the delivery of a workable and equitable outcome for Basin stakeholders.

The development of the proposed MDB Plan should not be compromised by the need to meet an arbitrary timeframe. The NSW Government urges the Commonwealth Government to make clear commitments for change while taking the necessary time to ensure the policy framework is right. The final MDB Plan must allow time for industries and rural communities to adjust to a future with less water available for consumptive purposes while ensuring the continuing health and productivity of the Basin's river and groundwater systems.

The NSW Government will continue to engage constructively and positively with the Commonwealth Government, the MDBA, other Basin States and stakeholders to ensure the long term environmental, social and economic future of the Murray-Darling Basin and its communities.

ATTACHMENT 1

NSW Government response to the Guide to the proposed Basin Plan