



Orana Regional Organisation of Councils  
(OROC)

Submission to the House of Representatives  
Standing Committee on Regional Australia

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

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## Request to address the Committee

OROC requests the opportunity to address the Standing Committee when in Dubbo on 16<sup>th</sup> February 2011, to support the evidence provided in this submission document.

## Introduction

OROC comprises the Local Government Areas of Bogan, Bourke, Brewarrina, Cobar, Coonamble, Gilgandra, Narromine, Walgett, Warren, Warrumbungle and Dubbo City Council.

These councils are located in the Central West, Northwest and Far West sectors of New South Wales. The OROC region covers approximately 20% of the geographical area of New South Wales and comprises a diverse environmental landscape with an extensive and complex range of natural resources that covers approximately 190,000 square kilometres. Population statistics show that there are just over 85,000 people residing in the OROC region.

The region is economically and socially reliant on its strong agricultural foundations and irrigation forms a large part of this agricultural production. Agriculture is subject to economic variations driven by climatic conditions. The Macquarie-Castlereagh and Barwon Darling catchments form a large part of the OROC region.

**This submission encapsulates the concerns of the member councils and the errors and omissions in the Murray Darling Basin Guide give a low level of confidence in achieving a balanced outcome.**

Overall concerns with the Guide include:

1. A comprehensive response to the Guide cannot be undertaken due to the information still being released by the Authority after the extended submission date.
2. The scientific assessment used in the Guide has been undertaken during prolonged drought induced degradation. A further more balanced assessment should be undertaken.
3. Lack of consideration for the enormous impact on the social and economic effects on communities.
4. No recognition of existing Water Sharing Plans.
5. Possible deficiencies in rigour in analysis of environmental requirement for water and examination of potential to address problems by methods other than reducing SDLs. A possible alternative would be to provide an outcome-based approach
6. Unrealistic estimates on the scale of economic impact, as indicated by an estimate of only one job lost per 3 GL of reduced SDL.
7. If proposed future consultation persists with consultation similar to that provided to-date, which has been an “advise and defend” approach rather than true consultation that

takes into account community perspectives and circumstances, a balanced outcome will not be achieved.

8. Much of the work done is based on modelling especially in the two crucial areas, economics and environment. Given the potential impacts of the changes proposed, much more attention needs to be given to the assumptions underlying these models and the quality of inputs. Recent data is impacted by the drought. Much of the input data appears to be secondary data sources such as ABS data and results of environmental studies undertaken some time ago (out of date information).

## **TERMS OF REFERENCE**

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

### **1.1 The overwhelming objective is environmental**

The Authority has interpreted the Water Act as focused primarily on the environment, with social and economic objectives considered as secondary. This preference is evident throughout the guide.

In October 2010, Water Minister Tony Burke, provided the MDBA with new legal advice regarding this interpretation of the Water Act. The advice recommended that the Authority gives equal weighting to social, economical and environmental issues. In his public address (25<sup>th</sup> October, 2010) the Minister stated;

“It’s clear from this advice that environmental, economic and social considerations are central to the Water Act”

The Murray Darling Basin Authority’s work to date does not reflect this advice.

### **1.2 Economic and Social analysis**

Several consultants provided socio-economic inputs into the development of the Guide including;

1. ABARE economic modeling (using water trade and AusRegion models) to assess impacts at Basin’s regional level. With additional modelling from Centre of Policy Studies -Monash University and the University of Queensland (Wittwer 2010; Mallawaarachchi et al. 2010)
2. Community consultation methods have been adopted to review vulnerabilities and adaptive capacity of 12 susceptible irrigation communities, compiling a regional profile for each (Marsden Jacob Associates et al. 2010)
3. Characterisation of basin community into vulnerability groups was also conducted. (Bureau of Rural Sciences and the University of New England, 2010)

4. A review of Aboriginal cultural, social, economic and environmental interests was also performed ( CSIRO Jackson, Moggridge & Robinson 2010)
5. Response of financial sector to potential change in water availability was assessed (Rizza 2010)
6. Literature review of economic evaluation of environmental benefits was completed by Charles Sturt University and CSIRO (Morrison & Hatton MacDonald 2010)

Headline results are at variance with results obtained elsewhere. For instance a conclusion of the economic analysis is that a 3,000 GL reduction in SDLs will result in job losses of only 932 or one job per 3.2 GL. For most of the enterprises in the Basin 3.2 GL is a very large volume of water - equivalent to say three large dairy farms, two large cotton farms and the top few percent by size of horticultural enterprises. The low employment per volume of water is not consistent with many other studies.

For instance a project completed by consultancy firm Psi-Delta with NIEIR in the Darling Downs indicated that for broad acre agriculture one job is created for every 300 ML and for primarily horticultural land in the Lockyer Valley, at least one job is created for every 100 ML.

One reason why the net job loss figure is so low is possibly that both Bendigo and Canberra are included as Basin towns, and in OROC's situation Dubbo's population has been included. Strong recent jobs growth in these towns based on government and retail employment might counteract job losses from agriculture. However, the importance of agriculture may have been underestimated.

In the establishment of SDLs, the Authority took the view that a 40% reduction in diversions was the upper limit of acceptable impacts on any one individual valley (however this rule was relaxed for the 4,000GL reduction scenario). As any reduction above 4,000GL would require more than 45% reduction in SDLs in any one catchment those scenarios were not reviewed.

For a 3000-4,000 GL reduction in SDLs, (which is 26-34% of total consumptive use) economic impacts are predicted at 13-17% of irrigated agricultural production in the region. It is not clear how this conclusion was reached. Anticipated water use efficiency could account for some of the discrepancy but a 26-34% reduction in water available to agriculture suggests a similar reduction in value of agricultural production.

There is some confidence by the Authority in the analysis undertaken;

*“The Authority notes this work is based on the best modelling available. The Authority is committed to improving these estimates through further investigations to improve the quantification of the economic impact at the regional level” (page 122 ‘ Guide to the proposed Basin Plan - volume 1’)*

Social impact is acknowledged by saying that there will be impacts but mainly in smaller towns that are dependent on irrigation. Other towns derive their income from sources other than agriculture. The general view would appear to be that the impacts will be minimal:

“Analysis commissioned by the Authority suggests that if the Basin is able to adjust smoothly to the reduction in water availability, then the long-term effect on the Basin economy would be in the order of a reduction of 1.3% in gross regional product. Such an amount could be more than offset by a solid breaking of the drought of the past decade or a permanent uplift in commodity prices.

If on the other hand, the adjustment of Basin enterprises and communities does not occur smoothly, then the long term impact on the Basin might be more dislocating and create longer term hardship in communities. The Authority recognises that substantial effort should be made to avoid such an outcome. For these reasons, the Authority has put significant weight on the policy settings of Basin governments as a critical determinant of the long term future of Basin communities” (page 159 ‘ Guide to the proposed Basin Plan - volume 1’)

The Guide does not show the Macquarie-Castlereagh as an irrigation dependent region yet the Macquarie community profile undertaken by Marsden Jacob and Associates for the Authority (page 5, point 5) states that: ***Water dependence*** - *Agriculture is the dominant enterprise outside Dubbo and the levels of activity, employment and wealth creation are all highly dependent on irrigation.*

### 1.3 Financial Analysis is limited

The Guide acknowledges that the reduction in SDLs could impact on value of farm assets particularly water assets and capacity to service loans, and this in turn could put farmers in default of loans. However the Guide indicates that this might not be a concern because;

*“The financial sector has expressed some confidence that the introduction of the (final) Basin Plan will provide greater certainty concerning water entitlements through the certainty provided from an overarching Basin wide planning framework. This would enable cash flows to return to more sustainable levels across the Basin and for asset values to improve albeit at potentially a lower level for some farmers.”* (p125 ‘ Guide to the proposed Basin Plan - volume 1’)

Recent discussions by Psi-Delta with banks in a major cotton growing area in Australia has indicated that around 10% of borrowers of some banks may be in jeopardy and that the forced sales that will eventuate will further reduce value of properties being sold into a market where there are fewer buyers. Similar situations are expected to exist with other major commodity groups such as dairy and horticulture that have also been affected by drought.

The guide acknowledges the impact on food and fibre processing but no analysis seems to have been conducted as to the scale of the impacts. Similarly, water trading is seen as the major adjustment mechanism but there is no analysis of the affordability of water to those buying water.

### 1.4 Lack of consultation has occurred in producing Guide and Basin Plan

From discussions with communities within the Basin, the consultation that has been conducted has been more of general data collection and “advise and defend” consultation rather than an attempt to gain a true understanding of irrigation communities.

Clearly obtaining agreement with the Authority on the nature of future consultation and how the results of this consultation will be used is most important. However the Water Act does provide the Authority and Minister with much discretion as to what extent that the results of consultation are included in the final Basin Plan.

The opinion of OROC Members is that by the time the public meetings were held in Dubbo and Bourke they were orchestrated as those invited to speak were mainly politicians and bureaucrats who had attended a number of previous meetings and as a result local community members were disillusioned and felt left out of the consultation process.

### 1.5 Closing the Gap

The Guide makes regular references to decrease in business, and therefore employment opportunities, and on P 98 it highlights that “*there is a greater likelihood that:*

- *Access to health services and education will become more difficult*
- *There will be less funds to maintain community infrastructure, and*
- *Social and community networks will come under increasing pressure”.*

All these outcomes are diametrically opposed to the Whole of Government commitment, policies and programs aimed towards “Closing the Gap” for our Aboriginal people. If ever there is a need for a more balanced approach, this is one, rather than driving the people towards a need for a Northern Territory style intervention, whilst focusing solely on a single environmental agenda.

### 1.6 Town Water Supplies

OROC is strongly of the opinion that town water supplies should not form part of the Basin Plan bearing in mind that this town water supplies use between 1% and 2% of total water extractions.

There seems to be an underlying push in the guide to say that it is reasonable in times of water scarcity for town to be required to have:

- a) nil watering of private gardens;
- b) nil watering of parks, ovals and playing fields
- c) nil use of evaporative air conditioners
- d) no allowance for economic growth of any kind, and
- e) only enough water for ‘essential’ commerce and industry.

Given the economic and social importance of towns we consider these restrictions to be unreasonable.

In NSW local water utilities operate under Best Practice and current water drought management plans are a requirement to comply with Best Practice.

- 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 fifteen years.

## 2.1 Water Resource Plans

The mechanisms for achieving the aims of the Basin Plan are Water Resource Plans (WRPs) which will be implemented by the Basin states. The Authority will approve plans that conform to guidelines set out in The Guide to the Basin Plan Technical Background Appendix E (p1127).

Over the last decade or so many valleys have devoted many years of consultation and planning to develop Water Sharing Plans by consensus from all stakeholders. These plans will give triple bottom line outcomes providing they are given the opportunity to be implemented.

In the case of the Macquarie Valley, the Water Sharing Plan was implemented in 2004 but due to drought conditions has not had the opportunity to be put into action.

In the case of the unregulated section of the Barwon Darling river system, this planning culminated in an agreement with the State Government in 2006, with annual licence entitlements being reduced from 523 GL to 173 GL.

Despite Government commitments, a water sharing plan has not yet been finalised for this valley.

*It is critical that the Water Sharing Plan agreement be finalised and given a time to run its due course before preempting that it will not deliver on the environmental outcomes expected, or preempting that the environmental outcomes will be less than now required under the Basin Plan.*

## 2.2 Climate Change and further changes

The Plan will assume a long term return to wetter than drought conditions in the Murray Darling Basin. However in accrediting State water plans the Authority will ensure that these plans are responsive to climate conditions. While these plans will need to provide for essential human needs, the present priority given to consumptive over environmental needs during dry periods will need to be redressed in these state plans.

The reduction in SDLs is more attributable to policy from over-allocation than to climate change. The Authority states that climate change is embedded in existing modelling that compares climate between 1990 and 2030, and there is an estimated reduction in surface water availability of 10%. An allowance of 3% of the entire water resource has been included for impacts of climate change not included in historical modelling. These climate change allowances are Basin wide figures and make no allowance for regional impacts.

Water efficiencies achieved through improved distribution systems and other water savings will be potentially water available for consumptive use.

Interception of water by forests and farm dams is recognised in the Guide as a significant use but it is anticipated that the reduced SDLs will be achieved in the first Water Plan from reductions in watercourse diversions rather than reduction in interception.

## 2.3 Structural Adjustment

The Basin Plan has as its primary objective the achievement of environmental improvement. States and other agencies are responsible for implementing the changes and for providing any assistance to those affected. While there is reference made to others who might be able to assist in structural and other adjustment there is no plan.

For instance the Department of Sustainability, Environment, Water, Population and Communities are responsible for the water buyback and the Guide states;

*At this stage, the total volume of water that will eventually be obtained via the buyback and infrastructure investment programs in each region of the Basin remains uncertain.” (page 99 ‘Guide to the proposed Basin Plan - volume 1’)*

During the 2010 Federal election campaign and again in November 2010, the federal government committed to buying back all water required to meet the requirements of the Basin Plan. To buyback the required extra 3-4,000GL will cost \$4.5-6 billion, or around than 5% of Australia’s GDP, assuming that there is no increase in per megalitre price of water from the average of \$1500/ML paid to date.

What happens if buyback does not achieve the reductions required is not clear, although it is likely that this would be a decision by the implementing agencies (the States). The States will have the job of introducing the reduced SDLs through their accredited water plans – 2019 for Victoria and 2014 for NSW and Queensland. It seems that pro rata loss of a proportion of entitlements is still a possibility.

The Guide states:

*“While the Authority is responsible for determining the Australian Government’s share of any reduction in the proposed Basin Plan, it is the Commonwealth Water Minister, who is responsible for managing the impact of the Australian Government’s share of the reduction. This will occur in two ways:*

1. Water recovery programs such as those mentioned above will contribute to managing the Australian Government’s share. The water recovered under these programs will effectively offset impacts on many water entitlement holders.
2. In the event that water recovery efforts do not fully offset the Australian Government’s share of the reduction, the Water Act provides for payments to be made to affected entitlement holders. Payments for any such residual share would relate to any reduction in market value of eligible water entitlements.” (page 154, ‘Guide to the proposed Basin Plan - volume 1’)

An area of major concern to OROC Member Councils is that any environmental water purchased that is controlled by the NSW State Government will not be included in the Plan. The MDBA cannot give a definitive answer to this question.



- 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.

### 3.1 Sustainable Diversion Limits (SDLs)

The Authority's approach to determining the surface water SDLs has been developed by analysis of the relationship between end-of-system flow and current diversions to achieve a target range of 60-80% of pre development flows. The Authority deems this approach as appropriate stating; *"...they provide a measure of water sharing in the region as a whole. They also provide a measure of connectivity between regions..."* (page 110 'Technical Background – part 1')

However the Authority also acknowledges that there are many uncertainties associated with this approach and is still in the process of reviewing this method;

*"There are also inherent uncertainties associated with measurement of flows, diversions and interceptions; estimation of environmental water requirements; and hydrologic modeling."* (page 114-115 'Technical Background – part 1')

*"MDBA is undertaking modelling and other analysis to verify that this end-of-system flow approach provides an aggregate environmental water share that aligns with the specific estimates of environmental water requirements for key environmental assets and key ecosystem functions, and that these environmental water requirements can be implemented within operational constraints."* (page 114 'Technical Background – part 1')

In spite of these uncertainties the Authority has not explored any non-flow solution to meet the objectives under the Water Act.

Under the current approach, there is still some ambiguity in the Guide as to what level of reductions is being sought. It will be no less than 3,000GL/yr in the first Plan but possibly as much as 4,000 GL/yr in the first Plan as most the analysis includes a 3,500 and 4,000 GL option. Future Plans could take the reductions to 7,000 GL/yr or even more if, for instance, climate change impacts become more severe. Proposed reductions appear to include the present buyback – for instance the 3,000 GL reduction in SDL option appears to require a residual reduction of 2,295 GL, (page 214) not 3,000 GL and purchases to date are around 700 GL (page 153) as at June 30, 2010

**As mentioned in Chapter 8, the Authority has also taken into account previous buyback (State and Federal) and infrastructure investment programs in its calculation of the further reduction required. The "residual reduction" for Macquarie-Castlereagh of 47 GLs a year has taken into account and has made considerations to all water recovery activity up to 30 June 2010, which it estimates is 57 GL of long-term Cap Equivalent (LTCE).**

**This "residual reduction" figure of 47 GLs per year does not appear to have taken into account the water recovery from the "Private Irrigation Infrastructure Operators**

**Program”, a series of irrigation modernisation projects. In the Macquarie-Castlereagh region four schemes have been funded to undertake modernisation and this will yield approximately 40 GL (20 GL of LTCE) additional savings with the potential of another 20 GLs from the modernisation of an additional scheme have not been taken into account.**

The Sustainable Rivers Audit determined that for moderate to good health a target range of 60-80% of pre development flows should pass through these significant environmental sites.

If any modeling is to occur on an annual basis, it should be of end of valley flows, not of diversions. The thrust of the Basin Plan is to achieve environmental flows under varying flow conditions, so if any modeling is necessary, it is these environmental flows which should be modeled against predicted outcomes.

The Lower Macquarie Ground Water Sharing Plan 2006 was implemented after extensive community consultation and scientific assessment. This process set a sustainable diversion limit which involved considerable cut backs.

The Guide now sees the Lower Macquarie Alluvium to take additional 40% cut back with no scientific basis for this decision.

Once again this is an example of scientifically backed consensus decisions being totally ignored by the Authority and is in direct conflict with best advice as given by NSW Office of Water.