



**Submission to**

**the Standing Committee on Regional Australia**

**on the Socio-economic Impact of the**

**Guide to the Basin Plan**

**by Lachlan Valley Water**

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## **SUBMISSION TO THE INQUIRY INTO THE IMPACT OF THE MURRAY-DARLING BASIN PLAN IN REGIONAL AUSTRALIA**

Lachlan Valley Water (LVW) welcomes this opportunity to make a submission to this inquiry.

LVW is the peak valley-based organisation representing 650 surface water and groundwater irrigator members in the Lachlan Valley, including irrigators within Jemalong Irrigation Limited (JIL). This submission has been prepared on behalf of all members and represents a 'whole of valley' position, however, members also reserve their right to make a separate submission. Our organisation is a member of both NSW Irrigators Council (NSWIC) and National Irrigators Council (NIC) and supports those submissions.

### **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 Triple Bottom Line Outcome**

The Guide is clear that the environmental requirements of the Basin are the primary consideration in establishing the proposed sustainable diversion limits (SDLs). We acknowledge that the social and economic impacts of the SDLs are considered in the Guide, but only as secondary concerns and only in so far as they do not compromise environmental outcomes.

In our view the Guide clearly does not deliver a balance between social, economic and environmental outcomes. Yet the objectives of the National Water Initiative (NWI) require governments to optimise social, economic and environmental outcomes and among other things, to provide for adaptive management of surface and groundwater systems to achieve these outcomes and to recognise the trade-offs that are involved in finding that balance between competing interests for water.

We understand that the MDBA has acted in accordance with its legal advice on the *Water Act 2007* in preparing the Guide. However, statements by Minister Burke and other members of the Government indicate that the Australian Government is seeking to achieve the triple bottom lines outcomes through the Basin Plan process.

*LVW believes the Act must be amended so that equal consideration is given to social, economic and environmental outcomes when producing the Basin Plan.*

##### **1.2 Hydrological Focus of the Water Act**

The narrow focus of the Act on hydrological measures as the only tool to improve the environment has clearly limited the MDBA's recommendations in the Guide and will result in less than optimal outcomes.

A better, more comprehensive approach would be to integrate land and water management and use infrastructure works and operational measures to more effectively deliver the environmental share of water. This would achieve environmental outcomes at lower social and economic cost than simply relying on increased volumes of water, particularly in a catchment like the Lachlan which is a

terminal system and where watercourse diversions are currently only 17% of the total catchment inflows (p 50, Vol 1 of the Guide).

The disadvantage of the focus on hydrological methods to improve river health is illustrated by the Sustainable Rivers Audit (SRA). The Guide (p18, Vol 1) describes the overall ecosystem health of the Lachlan River as 'very poor' based on the SRA. However, the hydrological health of the Lachlan is 'moderate to good', the macroinvertebrates are 'poor' and fish are 'extremely poor'. This indicates that the overall health of the river is more likely to be improved by addressing non-flow factors like land management and invasion by alien species such as carp than by providing greater volumes of flow.

*The Act as it currently stands can neither achieve the environmental health of the Basin in the most effective way, nor can it optimise social, economic and environmental outcomes.*

*A more comprehensive approach would be to integrate land and water management and use infrastructure works and operational measures to more effectively deliver the environmental share of water.*

### **1.3 Social and Economic Impacts on Regional Communities**

The proposed SDLs represent a high economic and social cost for modest environmental gain, e.g. in the Lachlan a 15% reduction in the surface water available for productive use translates to a 3.8% increase in the water available for the environment. The Guide does not explore the opportunity for environmental works or river operational measures to achieve equivalent environmental benefits without reducing water available for productive use.

Instead the MDBA Guide identified a further 45 – 69 GL of surface water in the Lachlan were required for the environment, and the Commonwealth and State Governments between them have already acquired enough licences to meet the lower end of these cuts.

Using the NSW Irrigators Council calculator, which is based on the ABS data on gross value of irrigated agricultural production and uses a linear approach to calculating the impacts on jobs and production, we assess that a 45 GL reduction in usage in the Lachlan will reduce the value of irrigated agricultural production by \$31 million and cost 250 jobs.

We submit that the Basin-wide, long run social and economic analyses, such as that provided by ABARE that indicated a loss of only 800 jobs and \$0.8 – \$1.1 billion gross value of irrigated agricultural production across the Basin as a result of the Plan, are of very limited use when impacts are going to be catchment-specific depending on the proportional loss of water.

The “no regrets” approach that was initially adopted for buying water for the environment may have had no regrets for Government because it acquired entitlement at the lowest cost per ML, but this approach resulted in large volumes being acquired in valleys where the environmental share of total flows is already high, and significant social and economic impacts. The NSW and Commonwealth Governments now own 17% of total licensed entitlement on the Lachlan Regulated River, a river that is a terminal system and where the Water Sharing Plan already reserves 75% of the long term average annual flow in the river for the environment.

This untargeted approach to environmental water purchase has had significant impacts on regional communities. This particularly applies to smaller towns such as Hillston that were identified by the MDBA as highly dependent on local spending by water-based industries.

*The proposed SDLs represent a high economic and social cost for modest environmental gain. For example, in the Lachlan a 15% reduction in the surface water available for productive use translates to a 3.8% increase in the water available for the environment. This has an estimated economic cost of 250 jobs and a loss of \$31 million in irrigated agricultural production.*

### **1.3.1 Hillston – a Case Study**

Hillston is a town of 1500 people on the Lachlan River in western NSW. Since the mid-late 1990's it has experienced a surge in development as both groundwater and surface water irrigation have been developed. The range of crops now grown include potatoes, cherries, corn, melons, citrus, beetroot, cotton, wheat, other cereals, olives, almonds and lettuce.

Many irrigators in the Hillston area use both surface water and groundwater, with groundwater seen as a high security supply.

The Lower Lachlan Groundwater Sharing Plan was introduced in 2008. It set an extraction limit of 108 GL that both the State and Federal Governments agreed to under the Achieving Sustainable Groundwater Entitlements (ASGE) program, and resulted in licensed entitlement being reduced from 215 GL to 108 GL.

Hillston irrigators adjusted to the Water Sharing Plan by investing in more water efficient irrigation technology, trading water and moving to high value enterprises based on contracts with major retailers and processors. The ability to make these changes was based on access to a secure supply of water as a result of the ASGE process.

Less than three years later the MDBA now proposes an SDL that is 40% below the Plan's extraction limit, and if implemented it will require a further cut in entitlement of 43 GL.

This cut will be on top of the surface water already purchased for environmental purposes, where approximately three quarters of the water purchased by Government has come from the Lower Lachlan (currently the Lachlan downstream of Lake Cargelligo is a separate trading zone).

Together the surface water and groundwater cuts have the potential to reduce productive usage in the Hillston by around 100 GL. Based on the NSWIC calculator this will reduce production by \$68 million and cost 500 jobs.

*LVW considers that minimising the volume of water withdrawn from productive use by the Basin Plan is the most effective means of reducing social and economic impacts and that this can be achieved through*

- *increased investment in on-farm irrigation efficiency programs, and*
- *an Environmental Watering Plan that more effectively manages the environmental water already held by State and Commonwealth Governments.*

## **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 Usage and Entitlement**

The Lachlan Regulated River Water Sharing Plan (WSP) was introduced in 2004 but suspended due to the severe and prolonged drought. While the drought has reduced total flow volumes in the river by about 80%, the actual sharing of flows between the environment and productive users has been very close to the 75:25 ratio set by the WSP. Over the last six years 74% of average annual flow has been for the environment and 26% for productive use, indicating the Lachlan Regulated WSP performs similarly during drought and non-drought conditions. The CSIRO acknowledges that "...the Lachlan has robust environmental flow rules that maintain shares despite changes in climate and development." (p 62, Water Availability in the Lachlan, CSIRO 2008).

#### Lachlan Entitlements and Use

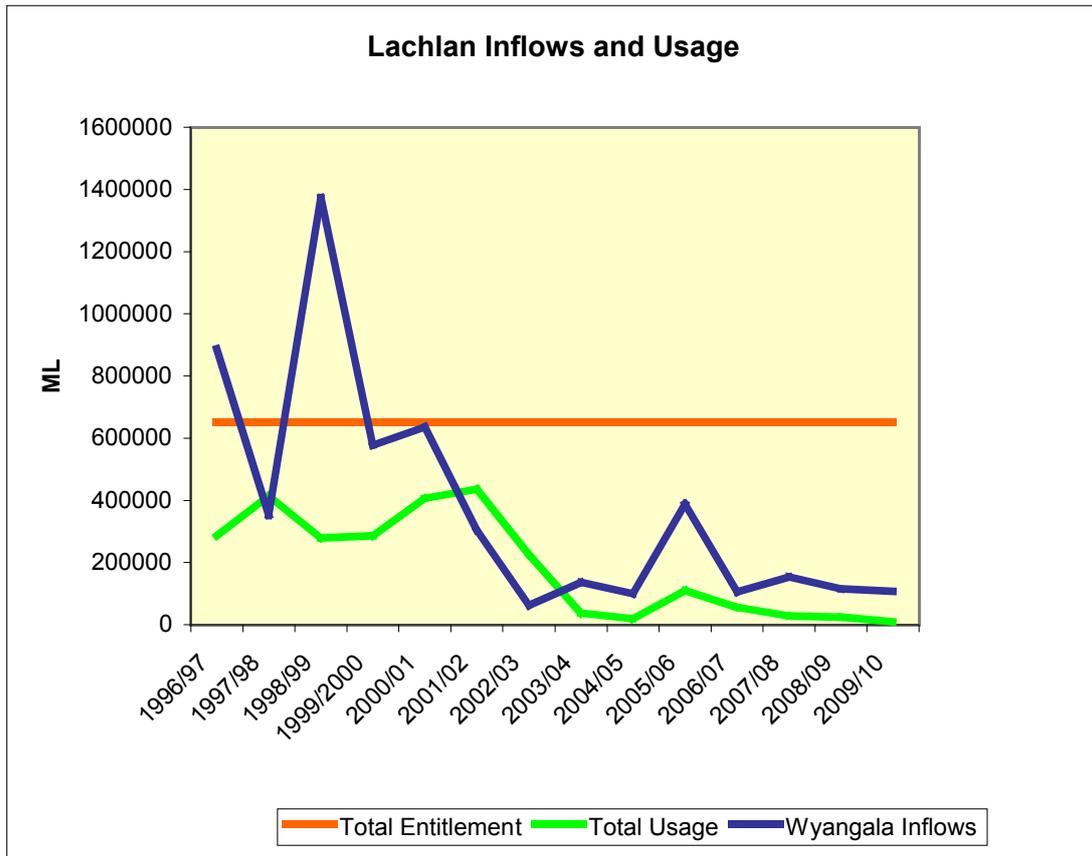
Total entitlement in Lachlan Regulated River	650 GL
Water Sharing Plan long term average annual use limit	305 GL
Average Annual Use 1997 – 2010	166 GL

(Sources: Lachlan Water Sharing Plan 2003; State Water Corporation)

The graph below shows total entitlement in the Lachlan Regulated River, the annual usage over the last 14 years and the inflows to Wyangala Dam, the main storage on the Lachlan. Normally around two thirds of total system inflow in the Lachlan is received above Wyangala and one third downstream.

The very steep decline in inflows over the last 10 years and the corresponding reduction in usage are clear, to the point where total licenced usage in 2009/10 was just under 10 GL, including town water usage and stock and domestic licences.

The graph also illustrates the responsiveness of the allocation system to climatic fluctuations, where water is allocated to licences for use only when it is available. A general security irrigator in the Lachlan who has a 1,000 ML licence would only have received 220 ML water allocation in total over the last 8 years. This indicates that the lack of water for wetlands and other environmental needs over that period is a result of lack of inflows to the whole river system, not extraction of water by productive users.



**2.2 Water Saving Measures**

According to the Guide, interceptions account for 18% of total inflows in the Lachlan and watercourse diversions account for 17% of total inflows. Under these circumstances we recommend that the most effective savings measures within the Lachlan region are those that maintain the same effective volume of water in productive use, namely:

- On-farm water efficiency programs - irrigators in the Lachlan catchment have already taken part in both the Pilot Program and Round 1 of the On-Farm Irrigation Efficiency Program, and there is evidence of continued demand for such programs.
- Infrastructure upgrades within Irrigation Corporations

As noted in 1.3.1 above, LVW also recommends that an effective Environmental Watering Plan for each valley, developed in conjunction with relevant local expertise in that valley, will make a major contribution to environmental outcomes through improved management of held environmental water, as well as environmental water already provided for in existing water sharing plans.

*We urge that the Australian Government commit to developing Environmental Watering Plans in conjunction with valley-based input.*

### **2.3 Groundwater**

Reductions in groundwater usage are a very significant issue for the Lachlan, with 60% of the proposed total reductions in usage being in groundwater rather than surface water usage.

Since the MDBA community meetings were completed the Department of Sustainability, Environment, Water, People and Communities has confirmed that “The Government’s ‘bridging the gap’ commitment extends to groundwater. If there is a gap to the final sustainable diversion limits as set by the MDBA, then the Government is committed to close that gap through water efficiency savings or water purchases.”

*LVW welcomes the commitment to bridging the gap for groundwater as well as surface water but remains concerned that the actual process for buyback of ground water and the relationship between State and Commonwealth responsibilities are unclear. We request that the Government clarify these issues.*