



Peak body for five landholder associations and 1600 irrigators in the Murray Valley

Submission to the House of Representatives Standing Committee on Regional Australia

*Inquiry into the impact of the Murray Darling Basin Plan of
Regional Australia*

December 2010

Introduction

Southern Riverina Irrigators (SRI) is a representative body of Four Landholder Associations located within the Murray Irrigation Region of Southern NSW. The organisations representation covers an area of 748,000 hectares and 1,600 landholdings.

As a member of National Irrigators Council and NSW Irrigators Council, SRI gives full support to the responses submitted by each body to the Standing Committee on Regional Australia. Both of these organisations have provided a more detailed in depth submission on the Inquiry into the impact of the Murray Darling Basin Plan of Regional Australia.

However, SRI reserves the right to enter its own submission; this submission seeks to add regionally specific information and as such, should be viewed in its own right.

SRI also recognises the submission entered by Louise Burge, which looks at a number of the issues mentioned in this submission in more detail.

Request to Address the Committee

SRI requests the opportunity to address the Committee to support the evidence and opinions provided in this submission.

Overview

“While the Authority has an important part to play, it is neither powered nor equipped to undertake the entire complex task.”

Mike Taylor, Chair MDBA

“This was clearly an impossible task given to the Authority, because they were somehow supposed to just use science but also somehow relieve political leaders of their responsibilities to make this choice. That is a political issue ... You cannot tell a technical agency to optimise both [environment and economy] because there are trade-offs between them.”

Professor John Briscoe, Harvard University, World Bank Senior Water Advisor,
International Advisor to the MDBA

Southern Riverina Irrigators is pleased to have the opportunity to provide a submission to the House of Representatives Standing Committee on Regional Australia’s inquiry into the impacts of the Murray Darling Basin Plan in regional Australia.

It is the opinion of SRI that the proposed Basin Plan has followed a very deformed path of public process and there are numerous deficiencies in the proposed Basin Plan, which the SRI will highlight in this submission.

From the outset, SRI rejects the proposed Basin Plan, due to the undoubtedly detrimental effect it would have on rural communities throughout the Basin, particularly the NSW Central Murray region, which is heavily dependent on the irrigation industry as an economic base.

Basin communities understand and support policy reform – if a healthier environment can be created there are immense benefits for the communities that depend on the river as an economic base.

However, SRI does not believe that any sustainable reform can come without sacrifices from all parties, this includes social, economic and environmental aspects, and there must be trade-offs for

all three. In contrast to the proposed Basin Plan, SRI believes that a healthy environment can only emerge from strong regional communities and farming sector.

SRI also rejects the “just add water” approach of the Federal Government Water for the Future scheme and the MDBA; strong and secure communities will not come from this strategy, but will emerge from a more holistic approach to environmental issues and the use of innovative and visionary investment to secure food production and the environment.

There was been considerable money promised to regional communities during the 2010 Federal election. SRI welcomes the commitment from the Federal Government to improving the Government services outside metropolitan centres in regards to health, education and transport infrastructure among other areas, an these regions have suffered significant neglect in funding.

While there seems to be a political will to undertake the recommended policy changes and compensate for the damage to regional communities with regional restructuring packages, the SRI believes that this is not the feasible option that is being promoted by the government. The damage that is already being done to rural communities through the uncertainty and extremity of the proposed cuts is already having severe impacts on investment in regional businesses.

As quoted above, recent the comment by the outgoing chair of the MDBA, Mike Taylor, highlights the need for strong Government action to change the focus of the reform process. Further, Mr Taylor stated that

“... a successful Plan would require both Commonwealth and States to work together on a comprehensive range of policy, planning and implementation issues in consultation with relevant community, industry and environmental groups.”

SRI believes that Mr Taylor’s comments support the claims made by rural communities that the proposed Plan is beyond the boundaries of a scientific recommendation.

As such, SRI believes that the House of Representatives Standing Committee needs to address the following concerns in regards to the impacts of the proposed Basin Plan:

1. The Water Act 2007 does not allow for the delivery of the triple bottom line outcomes espoused in the National Water Initiative;
2. That the “best available science” used by the MDBA of a medium confidence level, which is described by the Authority as

“... knowledge and data available from a range of sources but may not have been subject to formal peer review. A relatively lower level of confidence for this category.¹

Due to this, the recommendations formed by the MDBA should only form part of the decision making process – a issue with ramifications of this magnitude should not rely on “lower level confidence science and data. Ultimately, the SRI believes that Government should make the decision in consultation with Stakeholders

3. Alternatives measures to secure water for the environment must be explored; environmental works and measures, infrastructure upgrades and on-farm efficiency programs need to be given the support that they have lacked over the past few years when water buybacks have taken precedence.

¹ MDBA, Guide to the Proposed Basin Plan, Overview, p. 38

Further, water buybacks need to be undertaken in a more targeted manner, to prevent negative impacts on communities dependent on the supply of irrigation water. The threat of a Swiss-cheese effect throughout farming communities is of very real concern and is currently occurring through the Federal Government scheme.

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:

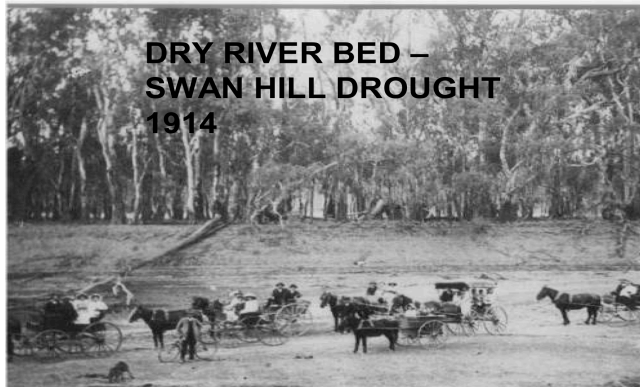
- The direct and indirect impact of the Proposed Basin Plan on regional communities, including agricultural industries, local business activity and community wellbeing;
- Options for water-saving measures or water return on a region-by-region basis with consideration given to an analysis of actual usage versus license entitlement over the preceding fifteen years;
- 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 reduces 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.

Historic considerations

Australia landscapes are highly variable systems and have historically experienced wet and dry cycles; these cycles can be short term or long term. This occurs right across our vast continent and has occurred both historically and in the contemporary context.



Murray River, Swan Hill, 2006

The Murray Darling Basin has been subject to a ten-year extensive drought in this decade, of similar magnitude, to the Federation Drought of 1895-1903 and the extensive drought in the period, mid 1930's – mid 1940's.

The current drought therefore must be put into historical perspective. When the explorers first set eyes on the Murray River it was a series of salty pools and early explorers were unable to locate the end of the Murray, due to shifting sand dunes.²

There is ample photographic and literature evidence that historic drought events in the Murray Darling Basin are a normal and regular feature, of Australian weather cycles.

As such, it is extremely difficult to quantify river health at any one point in time. The significant reliance of the MDBA on the Sustainable Rivers Audit as a reference point for the health of the Basin is indicative of this point. The audit was undertaken during the middle of the drought period, between 2004 and 2007, with the results, unsurprisingly showing that the river was not in good health.

While there are some concerns with water use throughout the Basin, it is important for the Committee to note that the problems with the health of the Murray Darling Basin environment, stems predominately from the drought, which has only just ended in recent months. SRI would like to reiterate the dramatic change in the Murray Darling Basin environment in the past few months, with incredible numbers of wildlife returning to the areas – scientists remain unable to explain how the wildlife, particularly birds, knew that the significant rain event would be occurring.³

It has been argued that the Murray Darling Basin and in particular the health of the Murray River, should be determined at the bottom of the system, notably the Murray Mouth, Lower Lakes and Coorong. This however, ignores the complexities of determining, environmental river health, for the whole 2,225 km of the Murray River Channel and the Darling River systems, by the measuring the health of the system at only one point.

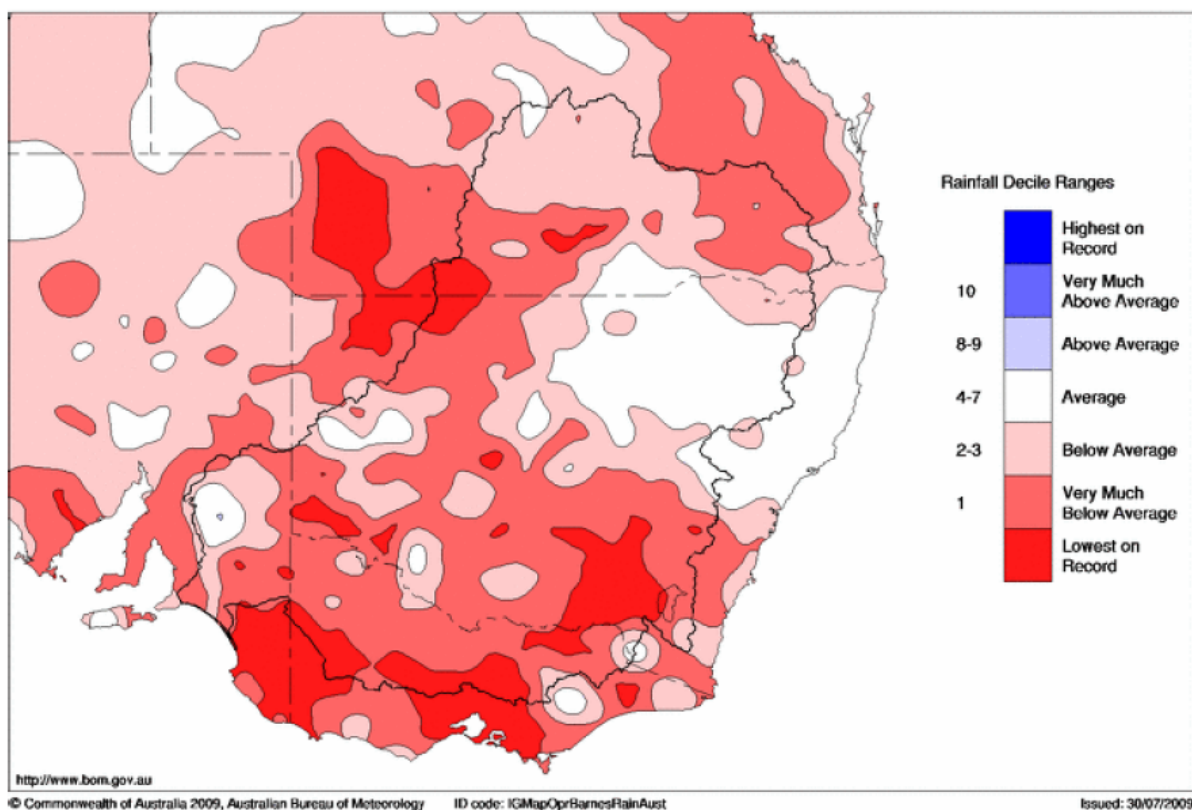
² Tolley, J. C., (1982), *South Coast Story: a history of Goolwa, Port Elliot, Middleton and the Murray Mouth*, Port Elliot, South Australia: District Council of Port Elliot

³ Landline, ABC, September episode

Prolonged drought in the Murray System has been severe with storage inflows at historic lows. Many creeks and river systems dried up completely or were reduced to stagnant pools. The environmental impact of this drought was extensive and harsh in the Murray system. The cause was not due to 'over allocation' or poor water management. The cause was not due to 'over allocation' or poor water management. The recent drought has proved beyond, state water sharing plans and physical storage capacities. Many communities across the basin were either without water supplies or subject to critical shortages. It is incorrect to presume that 'upstream states' were 'sucking the system dry' due to 'over allocation'.

Policy that bases itself on the notion of over-extraction upstream of the Lower Lakes relies on a biased opinion of the ill health of the Murray River. As the below figure illustrates, rainfall across the Basin has been significantly below average for many years, which has impacted on the environments across the Basin.

Murray Darling Basin Rainfall Deciles: 2001 – 2009



This current and extensive drought has brought many hardships to the Murray Darling Basin communities and industries.

The below chart illustrates the water allocations for each season for the NSW Central Murray General Security users, which comprise more than 85 per cent of water users. The lack of water in the community has had severe impacts on the regions economy, with many businesses in the region accumulating significant debt levels to maintain their business operations throughout the drought period.

End of Season irrigation allocations (% of entitlements)

Water Product	06/07	07/08	08/09	09/10
NSW Murray General security	0	0	9	27

Source - MDBA

This background information is highlighted to outline the impact of drought on the Murray Darling Basin and on water allocation to irrigators, particularly in the NSW Central Murray region.

Direct responses to Terms of Reference

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

It is the opinion of SRI that the Plan lacks a triple bottom line approach and rejects the proposed Basin Plan as unbalanced and detrimental to rural and regional communities.

Community Background

In a report to the MDBA prepared by banking consultant, Adrian Rizza, Deniliquin was one of the towns identified as being severely impacted by the proposed Basin Plan and would “struggle[e] to remain viable in the absence of sufficient irrigation water.”⁴

As the centre of the NSW Central Murray region, the negative effects of the Basin Plan are indicative of the impacts of the smaller surrounding towns of Barham, Wakool, Moulamien, Mathoura, Conargo, Finley, Tocumwal, Berrigan and Jerilderie and the impact on the Deniliquin economy would further impact these smaller surrounding towns in regards to flow on business impacts, and also in regards to health and educational services.

A recent RAMROC report identifies that for every 10 per cent reduction in water availability in its representative region, the value of agricultural production declines by \$220 million and direct employment declines by 4,700.⁵

Under environmental initiatives such as the Living Murray and Water for the Future, the NSW Central Murray region water holders have sold 17.5 per cent of water entitlements to these environmental programs.

This is a significant amount of water that has been removed from productive use and the MDBA recommendations of cuts of 26 – 36 per cent, is an additional cut to the 17.5 per cent.

The MDBA percentage figures are also misleading in representing the amount of water that may be lost by irrigators, as it is expressed in megalitres, not the cap equivalent figure, which is point 0.8 per cent – essentially this means that for every megalitre of water that is returned to the environment, 1.2 ML are taken from irrigators.

In total the amount of productive irrigation water that could be taken from the NSW Central Murray region, will be between 41 – 51 per cent, if the figures from the proposed Basin Plan are used.

To put the importance of the irrigation community in perspective the Marsden Jacobs Associates report used to outline the community profiles for the MDB in Appendix C of Volume 2 of the Guide, found that for the NSW Central Murray Region:

... irrigated agriculture is the major economic driver in the region, [and that] a reduction in the long-term water availability of greater than 20% will result in many farm businesses becoming unviable with direct flow on impacts occurring at a community level.⁶

As 17.5 per cent of water has already left the region, it would not be an understatement to say that this would completely devastate the irrigation communities represented by SRI as the proposed Plan

⁴ Adrian Rizza, *The Potential Effects of Changes to Water Allocation Policy on Financing the Agricultural Sector and Businesses in the Murray Darling Basin*, October 2010, p. 6

⁵ RAMROC, ‘The true economic value of food production in RAMROC regions’

⁶ Murray Darling Basin Authority, *Guide to the proposed Basin Plan*, Volume 2, Part III, pg. 964-6

would remove up to half of the resource base of a \$400 million irrigation industry, which is the basis for 90 per cent of businesses in the region.⁷

Local Deniliquin business Tasker's Garage is an example of the potential damage from the Basin Plan, a large business within the Deniliquin region supplying machinery and parts, the business has put off hiring new staff and apprentices this year, due to the uncertainty created by the Basin Plan about future viability of their business operations.⁸

Recovering water for the environment in the Murray Darling Basin, without appropriate planning, will have profound economic and social impacts on the entire community of the NSW Central Murray region. It was not only the farming community that came to the Deniliquin MDBA Consultation Meeting in October, there were equal, if not more, from the local non-farming community who were able to see the impacts that the Basin Plan would have across the entire community.

Much of the frustration in the room was caused by the lack of understanding or concern from the MDBA in regards to the flow on impacts of the Basin Plan in this regard.

Social and Economic Impacts

This assessment of the NSW Central Murray region is supported by a report released in August 2010 by Judith Stubbs and Associates, which confirmed the fears rural communities have held about the proposed Basin Plan.

The report estimated the a 25 per cent cut in water availability for productive use across the MDB would cost 14,000 jobs and the national economy \$1.4 billion annually, while a 50 per cent cut would cost 28,00 jobs and \$2.7 billion annually.⁹

There are two points of note to consider with these figures; firstly, the projected job losses and impacts on the national economy are considered conservative and secondly, it is worth reiterating that the lower range of the proposed Basin Plan is 27 per cent.

The JSA report also calculated possible employment impacts, concluding:

Averaged across the eight case study areas, a 50% reduction in water availability predicted job losses of around 9.0%; and a 10% reduction in water availability predicted job losses of around 2.0%. Impacts are quite variable, reflecting the degree to which a community is dependent on irrigated agriculture, with job losses as high as 18.9% predicted in some areas from a 50% reduction in water availability. These estimates are probably low for regional centres, as jobs in such areas are likely to reflect a wider area, outside the scale of our modelling.¹⁰

These figures will also have a huge impact at the local level on the small communities in the NSW Murray Region, the small population of the region cannot sustain the expected impacts of the Basin Plan, particularly following a severe drought and the closure of other industries in recent years, particularly the timber industry.

MDBA Response to the Social and Economic Impacts

⁷ Murray Darling Basin Authority, *Guide to the proposed Basin Plan*, Volume 2, Part III, pg. 966; Murray Irrigation Limited, 2010 Annual Report

⁸ Deniliquin Pastoral Times, November 26th, 2010

⁹ Judith Stubbs and Associates, Report 4 – Exploring the Relationship Between Community Resilience & Irrigated Agriculture in the MDB: Social and Economic Impacts of Reduced Irrigation Water, August 2010, p. 18

¹⁰ Ibid

The MDBA is, and has been, aware of the impacts of the proposed Basin Plan on irrigation communities. The Marsden Jacob Associates report in particular highlights and explicitly outlines the impacts of the Plan on the NSW Central Murray region. Yet reports such as this have been ignored, in favour of the more expedient MDBA commissioned ABARE report, which reported negligible impacts on the Basin economy and jobs, and is based on conditions that are not realistic.

The economic impact data provided in the Guide to the proposed Basin Plan is, in the submission SRI, evidence of a misrepresentation of the community impact that will result from the proposed Basin Plan and is indicative of the negligent attitude of the MDBA towards rural and regional communities and shows a lack of any consideration of the social and economic concerns in regards to this issue.

The Guide to the proposed Basin Plan clearly states that lost employment from the reductions proposed will be limited to 800 jobs and productivity to \$800m.

However, both the MDBA Chair and CEO distanced themselves from these figures within days of the release of the Guide, revising job losses upwards to 3,000, supporting concerns of the lack of importance and consideration placed on socio-economic concerns by the MDBA.

Further, for any socio-economic study to give a more accurate picture of the effects of the proposed Basin Plan, it would be a requisite of the study, to look extensively at the micro-level of the Basin, and undertake case studies of the impacts on rural communities across the Basin; this was not done by the ABARE report which is premised on flawed assumptions.

In an examination of this report, NSW Irrigators Council notes the following:

- The results are based on a 20 year simulation;
- The 20 year simulation provides analysis of end point impact, which clearly shows that the MDBA *did not* take into account short or medium term impacts or the proposals contained within the guide;
- The simulation assumes full employment economy wide across the full two decades of the data analysis, a situation which has *never occurred* across any economy in recorded history;
- The simulation assumes a frictionless scenario for labour or, in simple terms, assumes that individuals cast into unemployment in the Basin are prepared to immediately move elsewhere despite having significant equity (their house) in the Basin;
- The use of Gross Value of Irrigated Agricultural Production (GVIAP), an experimental dataset, is used to suggest bottom line impacts. This is an entirely misleading and inaccurate use of the dataset, as it *does not calculate profitability*. Further analysis on this point is provided below;
- The year-on-year analysis of GVIAP against water allocations, aside from the incorrect interpretation of GVIAP as a measure of profitability or economic sustainability, is statistically invalid. Both GVIAP and profitability are driven by a wide range of variables, of which water availability is but one. The economic analysis in the Guide fails to consider other inputs (fertiliser, labour, cost of capital and so on) and other market factors (exchange rates, commodity prices and so on); and

- The Guide suggests that irrigated agriculture adjusts due to water shortages such that productivity decline is small. Those very same figures fail to take into account the basic economic certainty of inflation, rendering them utterly useless.¹¹

The MDBA has been aware of the significant impacts of the Basin Plan on rural communities and a failure to make recommendations to the Government to allow the MDBA to construct a Plan that is able to consider these dire implications is reprehensible and as such, the continuation of the MDBA as a driver for changes to water use in the MDB, is the ultimate concern to SRI.

The SRI believes that it is imperative that the Committee acknowledges the flaws inherent in the socio-economic study used by the MDBA, to create a more balanced approach and gain more indicative outcomes to the social and economic impacts of the Basin Plan.

SRI further recommends that the Committee use the reports named by the SRI above, predominately the Marsden Jacobs Associates report and the Judith Stubbs and Associates which SRI believes gives a reasonably accurate indication of the impact of the Basin Plan on regional communities.

Impact on agriculture and food production

The Murray Darling Basin produces 40 per cent of Australia's food and fibre, with approximately one third coming from irrigation. In areas such as the NSW Central Murray, this figure is much higher.

While there are many variables in farm production – weather, commodities price, exchange rates – the removal of the water as a key agricultural input, will have significant and real impacts on food production in Australia and the availability of fresh, safe food in this country.

The NSW Central Murray region is an area that was chosen for its suitability for irrigated agriculture by earlier government policy; its proximity to the catchment areas, soil types and highly efficient irrigation systems, has made it an ideal area for growing annual irrigated crops.

Allocation within the region follows the natural rain cycles, with water allocation dependant on yearly rainfall due to the high percentage of General water entitlement holders in the region.

Summary

There was been considerable money promised to regional communities during the 2010 Federal election. SRI welcomes the commitment from the Federal Government to improving the Government services outside metropolitan centres in regards to health, education and transport infrastructure among other areas, as these regions have suffered significant neglect in funding.

The SRI supports the assessment of the NSW Central Murray region, in Appendix II of the Guide that there are incredibly limited options to build new industries to compensate for the significant reductions in irrigation entitlements and no viable large scale options to the community to benefit from increased environmental flows, as the majority of tourism opportunities available have already been exploited.¹²

While there seems to be a political will to undertake the recommended policy changes and compensate for the damage to regional communities with regional restructuring packages, SRI believes that this is not the feasible option that is being promoted by the government. The damage that is already being done to rural communities through the uncertainty and extremity of the proposed cuts is already having severe impacts on investment in regional businesses.

¹¹ NSW Irrigators Council, Submission to the Murray Darling Basin Authority: Guide to the proposed Basin Plan

¹² Murray Darling Basin Authority, *Guide to the proposed Basin Plan*, Volume 2, Part III, pg. 966

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

As outlined above, the NSW Central Murray region is dependent on inflows in the catchments area for allocation as the majority of users within the region have General Allocation entitlements. As such, actual use versus entitlement is highly variable from year to year.

Rural and farming communities have made significant changes to their practices to ensure the viability of their farming operations and the efficient use of natural resources. Gaining further significant efficiencies for many businesses will be difficult due to the efficiencies already implemented.

Rural communities have made significant progress in become more sustainable, but require the support of government to make large scale, innovative changes to allow for them to continue to be sustainable economic foundations for their communities.

Irrigation infrastructure upgrades

Despite the \$5.8 billion for alternative means of saving water through infrastructure upgrades and environmental works, very little of the money committed has actually been spent, with the focus of the Rudd and Gillard governments having been predominantly on the water buyback scheme.

Further, SRI notes with disappointment that the MDBA has, in no meaningful way, addressed alternative means of procuring water for the environment.

The building of irrigation systems across the country was historically encouraged under the nation building efforts of previous governments; irrigation farming and communities have been actively encouraged to expand, up until the 1990s. Now however, irrigation communities find themselves subject to demonization by the wider population, with government seeking to reduce irrigation area without adequate consideration of the social and economic consequences, and the and in context of rapidly growing global demand for food.

As such, SRI believes that the onus for the upgrade of infrastructure and the investment in environmental efficiencies should rest with Government, rather than using money solely in the current buyback scheme, as outlined above, the Government needs to make a clear commitment to be innovative in the area of water management, to allow for investment in irrigation infrastructure, following many years of neglect.

It is necessary that the government further examine the alternative options available to return water to the environment, which could cover a significant part of the reduction to the sustainable diversion limit.

Infrastructure upgrades, environmental efficiencies, on-farm efficiencies, and other alternatives to the water buyback system, offer a more sustainable way of returning water to the environment, by “finding” water in river systems that is currently not being used efficiently.

SRI reiterates its belief that the government needs to have a vision for the MDB in respect to this – solutions need to go beyond the farmer, to address all water users in the MDB system.

Environmental works and measures

SRI is very disappointed at the lack of initiative employed by the MDBA in exploring the options available during their environmental assessments.

National Irrigators Council, the National Farmers' Federation and the Australian Conservation Foundation have previously approached the MDBA seeking further development of such proposals as part of a suite of measures to address environmental needs. "Our calls have fallen on deaf ears – the MDBA devotes just a few paragraphs to this option in the Guide."¹³

SRI is aware that both the Victorian and NSW Governments are pursuing numerous means of reducing the amount of water that must be taken from productive use to meet the cuts to the SDL.

An option of particular note is the Lindsey Island project currently being explored by the Victorian Government:

Works at Lindsay Island will enable flooding of 30 per cent of the floodplain (about 5,000 ha), and reduce the amount of environmental water required for each event from 1,200,000 ML to 90,000 ML. To purchase allocation on the temporary market and provide this difference – just once – would cost around \$200 million. To purchase high-reliability water share and provide it more permanently would cost over \$2 billion.¹⁴

SRI would also like to highlight to the Committee the Water for Rivers program, which is currently recovering water for the environment using innovative efficiency savings and infrastructure upgrades supported by SRI.

SRI promotes this as a better investment of taxpayer resources for a sustainable future; further, finding alternatives to provide the recommended needs for the environment would serve to mitigate negative social and economic impacts.

Research and Development

As outlined above the irrigation industry has made significant advancements in best practice developments in on-farm infrastructure and efficiencies. However, the imperative is to ensure that these developments and technologies are adopted across the board, to ensure an efficient industry.

With the decade long drought the availability of capital has been, and will continue to be a considerable barrier for irrigation businesses, in part due to the concerns of future viability of investment in the region.

The irrigation industry requires some form of joint venture with the Federal and State Governments to ensure that a strong and sustainable future can be created for the irrigation community and rural communities.

- Measures to increase water efficiency and reduce consumption and their relative cost effectiveness;

The issue of 'value for money' has been a considerable factor in the proposed Murray Darling Basin Plan.

¹³ National Irrigators Council, Submission to the House of Representatives Standing Committee on Regional Australia

¹⁴ "Priority works to increase the effectiveness and efficiency of environmental water delivery in northern Victoria, July 2010", Unpublished report, Victorian Department of Sustainability and Environment

On the face value of a simple economic calculation of x amount of water for x amount of money, the water buyback scheme seems the most sensible approach to securing water for the environment.

However, the issue of the MDB is not that simple.

The recommendations made by the proposed Basin Plan does not explore the complexities of the relationship between the environment and the rural, farming communities in the Basin, nor do the recommended cuts to the SDL recognise the impact on the Basin economy and the flow-on effects through the national economy.

The Committee needs to consider in its findings the need for a visionary Basin Plan that can address the needs of the environment, the regional and national economies, and the social structures in the Basin.

The money spent on infrastructure upgrades, environmental and on-farm efficiencies does not, in the submission of the SRI represent a misuse of tax payers funds, but rather is evidence of a “national building plan” that regional Australia has been without for many years.

- Opportunities for economic growth and diversification within regional communities; and
- Previous relevant reform and structural adjustment programs and the impact on communities and regions.

In terms of options for under a significantly reduced SDL, the community report in Volume II, based on the Marsden Jacobs Associates report, states that in the NSW Central Murray region,

[a]ll farms will be financially impacted by a reduction in long-term water availability ... [and] there are few significant (if any) economic development opportunities from increased environmental flows that will offset the impacts of irrigated agriculture.¹⁵

Structural adjustment requirements long-term commitment to develop ideas, retrain the population and create the infrastructure and businesses necessary for rural communities to change their economic base. This commitment needs to span the life of the infant industry and not simply the period of allocated government funding to ensure the success of the created industries.

Given that many of the innovations in the State Governments’ proposed methods of infrastructure upgrades and environmental efficiencies are relatively low-cost, SRI promotes in its submission the preference for Government support for these measures to find alternative means of securing water for the environment.

There are two further points SRI would like to outline in its submission. Firstly is the issue of benefits of the tourism industry being promoted by the MDBA as an “alternative industry” and the “switch” by irrigation farmers to high value crops.

Tourism in regional areas is often dependent on recreation on the many man-made lakes, weirs and dams. This does not fit into the eco-centric notions of the proposed Basin Plan; to suggest that a healthier environment will stimulate greater eco-tourism is simplistic and misleading.

Secondly, the higher value crops recommended by the MDBA are predominately permanent plantings of fruits and nuts. This is again another example of economic rationalism without consideration of the reality of the environmental situation.

¹⁵ Murray Darling Basin Authority, *Guide to the proposed Basin Plan*, Volume 2, Part III, pg. 965

Permanent plantings must be watered constantly, including years of severe drought, to increase the reliance of irrigation farming on these types of crops would decrease the ability of irrigation farming in Australia to adapt to climatic conditions.

Further, while there is some scope for promoting these types of crops, the MDBA ignores the importance of farmers in “feeding the world”, producing nutritious staples, is an area of specialty of Australian farmers and the backbone of many communities.

<END OF SUBMISSION>

Please find below further information that SRI believes important in the consideration of the Committee that does not directly relate to the Terms of Reference.

Appendix I:

SUMMARY OF RECOMMENDATIONS TO THE MDBA:

In the regulated NSW Murray system any effective solution need to be inclusive of stakeholder groups to create a sense of ownership to move forward on and there needs to be a system of holistic river management rather than a “just add water” approach.

SRI recommends the following points for necessary for consideration during the drafting of the Basin Plan:

1. Natural resource management must be a holistic undertaking; SRI believes that the MDBA Plan is deeply flawed in its dependence of end-of-system flows as a measure of river health. Increasing outflows will not act as the panacea for any issues that exist in the river system. Additionally, there is significant potential for this Plan to have adverse environmental and economic impacts;
2. The MDBA needs to rectify the failure to provide vital information for the current state of river operation, the usage of water and the ambiguity that surrounds water environmental water holdings;
3. The MDBA dependence on the “best available science”, which is of “low level confidence”, needs to be immediately rectified and previous water initiative data needs to be incorporated into MDBA data, to be used in a progressive manner to prevent the continually shifting “goal posts” that occurs in the area of water management;
4. The MDBA needs to address the lack of investigation into solutions to deliver increased water to the environment, such as engineering solutions, infrastructure upgrades, environmental efficiencies and on-farm efficiencies, to change the predication of the proposed Plan on the removal of water from one user to another;
5. Rather than commission a new socio-economic study, the MDBA should use reports and studies already commissioned, directing its resources to investigating alternative outcomes to mitigate the impacts on rural communities;
6. The MDBA needs to address the failure to use substantial local knowledge and expertise of local river systems, which has been accumulated over many years, through observation and experience;
7. The *Water Act 2007* requires a Business Plan (Environmental Water Accounting Plan) as the basis for major decisions. No indication of detailed Water Sharing Plans or Environmental Watering Plans have as yet been created by the MDBA, further disengaging stakeholders;
8. SRI is concerned that the modeling of “without development flows” and proposed flows have been done without expert assistance from NSW Office of Water or State Water, or local knowledge of local river systems. The MDBA needs to include this expertise alongside local knowledge.
9. The MDBA need to acknowledge the third party impacts the proposed Basin Plan, due to the very high potential of the proposed flows to create significant flood events and the likely impacts on delivery entitlements due to the use of river space for environmental flows;
10. The MDBA acknowledge their flawed dependence on “high value” crops and environmental tourism as an alternative to irrigation as an economic base; numerous reports commissioned by the MDBA have indicted that the “conversion” would not be feasible.

Appendix II:

Excerpt from the Submission to the Murray Darling Basin Authority

BEST AVAILABLE SCIENCE

Perceptions regarding the Murray Darling Basin have shifted significantly over the past decade and recommendations for the future management of the system have changed significantly, in this short timeframe.

The proposed Basin Plan is very much an example of this, increasing the apparent amounts of water required for the environment to much higher levels than previously suggested. The 3,000 – 4,000 GL minimum cuts to SDLs proposed by the MDBA, is significantly greater than the 1,500 GL recommended by the Living Murray initiative only five years prior.

The MDBA have done very little to justify the cuts to SDLs proposed in the Basin Plan. Claiming that these outcomes are on the basis on very complex modelling, based on the “best available science” is an insufficient explanation.¹⁶

SRI maintains considerable doubts in regards to the robust nature of the “best available” science that the MDBA has used as a base for its environmental assumptions.

The MDBA has outlined that ‘most of the evidence available falls into the medium confidence category,’ which is described as being –

... knowledge and data available from a range of sources but may not have been subject to formal peer review. A relatively lower level of confidence for this category.¹⁷

The dependence of the MDBA on data that has a “lower level of confidence” is an unacceptable starting point for a body that has been named as an Authority.

The MDBA use of specific and selective data and modeling, gives rise to the perception that the water requirements have been determined by the deemed necessity of high end-of-system flows and desire to maintain Lower Lakes region as a freshwater lakes system, rather than the 18 ecological assets throughout the river system.

Further, the use of the precautionary principle when employing such dubious data, will serve to amplify inaccuracies in the data and lead to unnecessary and incorrect recommendations.

The MDBA have not indicated how the effectiveness of environmental initiatives has and will be achieved. As there is no clear understanding of how river and ecosystem health is currently been measured beyond levels of outflows, the MDBA needs to clearly outline how the health of ecosystems has and will be measured before the Basin Plan can progress any further.

The Guide does not express the ecological requirements of environmental assets that have been met under previous initiatives, nor does the Guide adequately link increased water to achieving environmental requirements.

Secondly, SRI rejects claims of “over allocation” in the MDB. Over the past four seasons, NSW Central Murray region have received allocation of 0, 0, 8, and 27 per cent; how can claims be made that there is a serious problem of over-allocation if a region has not received any allocation.

¹⁶ Murray Darling Basin Authority Technical Briefing, Canberra, November 23rd, 2010

¹⁷ MDBA, Guide to the Proposed Basin Plan, Overview, p. 38

The bias of the MDBA to solely employing hydrological data to assess the environmental health of the MDB and thus finding only hydrological solutions in the proposed Basin Plan; the MDB is a much more complex system than one of hydrology and the biased approach distorts the findings of reports used by the MDBA.

SRI also is concerned that the MDBA has not used the significant knowledge resources from the NSW Office of Water, NSW State Water, or any other state government bodies. Further, the use of “local knowledge and expertise of the local river systems, is an invaluable resource that should not have been overlooked by the MDBA in its data collection and planning.

No consideration has been given to the current Water Sharing Plans (WSP) and the benefits that these might bring to the MDB. These WSPs provide a comprehensive framework for current diversions and environmental watering and have been created using extensive state based understanding of the hydrological nature of the system.

However, the WSPs have not been fully tested due to their suspension during drought conditions. As such, SRI believes that claims to the effect that the current WSPs are contributing to the decline in river health are misleading.

Of further concern is the apparent lack of understanding of water currently allocated to the environment. The Guide does not adequately outline the water that has already been allocated to the environment from measures such as current environmental water, dilution flows, delivery entitlements, etc.

The MDBA assessment of river health has predominately occurred during a severe drought event. As the Murray River has had below average inflows for nine out of ten of the past years, the drought would have undoubtedly have had a significant impact on river health.¹⁸

The constant claims of a “dead and dying river” must cease and the health of the river put into the context of the recent severe drought event.

SRI believes that the current policy changes are being made to address the outcomes of this one in one hundred year event.

SRI recommends that the MDBA needs to address its sub-standard science base and engage with stakeholders to access the considerable local knowledge of the river system.

ENVIRONMENTAL FLOWS

As the MDBA has not given any indication of Environmental Watering Plan, delivery of environmental flows is another major concern for SRI, due to the increased risk of flood incidents and third party impacts.

SRI refers to the significant work undertaken by Murray Irrigation Limited, in identifying several points in the Central Murray region where prescribed environmental flows will exceed the capacity of regulated flow.¹⁹

These areas include the Barmah-Millewa Forest, Edward-Wakool River System, Gunbower-Koondrook-Perricoota Forest, Hattah Lakes, Riverland-Chowilla Floodplain and the Lower Darling River System.

¹⁸ MDBA, River Murray System Drought update, Jun 2009

¹⁹ Murray Irrigation Limited, Submission to the Guide to the Proposed Basin Plan, December 2010

The amount of water required to achieve the rates of flow prescribed by the MDBA for each of these sites within the parameters of the normal regulated flows and would be likely to require flows similar to what is occurring currently to “push” the required amount of water through the system.

Flows through the Murray system depend heavily on passage through the Barmah-Millewa Choke, which has a capacity of 8,500ML/day.

Further, the proposed flows have not yet been achieved during this period of very high rainfall;²⁰ despite levels levels of rainfall being well above averages. The MDBA cannot propose an environmental watering regime that requires such extreme amounts of water.

Additionally, how can stakeholders have certainty in the proposed Plan when they are not privy to the water management Plans from an environmental perspective.

SRI has no confidence in the MDBAs ability to recreate natural flows, which need considerable planning and understanding of the river system, which SRI believes that the MDBA does not possess.

This concern is particularly exemplified by poor flow management of the Wakool River system, which has resulted in numerous recent black water events that have caused large fish kills throughout the area.

END OF SYSTEM FLOWS

The proposed Plan has prescribed increased outflows solely as a measure of river health. At a recent MDBA community meeting in Melbourne, MDBA CEO Rob Freeman defined a healthy environment as a system with 80 per cent outflows.²¹

The focus on end of system flows, and achieving them via the removal of resources from one user to give to another, brings to the surface numerous questions.

Firstly, regarding the use of the system as a source of critical human needs, secondly, the demand for water resources to maintain the Lower Lakes in South Australia as a freshwater system and thirdly, the use of the MDB Rivers as drainage for the MDB environment.

SRI notes that from the outset, while it has been necessary for the MDBA to recognize that the MDB system has changed over the past century from a natural river system to a “working river”, this acknowledgment has not been made.

Anecdotal and picture evidence shows that during the comparable Federation drought, and subsequent droughts, the river was used as a road to convey goods between towns along the river. This is a vastly different image than the Murray River of the 2000 - 2010 period, which was still supplying the end of the river users with fresh water. The issue of critical human needs is a poignant one given the recent years of drought; during this period there have been continual low-flows down the river system, despite record low rainfall for these years.

In regards to the Lower Lakes, this scarce fresh water resource was being used to maintain an artificial freshwater lake system at the Murray Mouth, rather than a natural estuarine system. While there appears to be widespread acceptance of the need to “just add water” to the Lower Lakes, the MDBA needs to openly recognise that, like the River Murray, the Lower Lakes has been modified dramatically by the barrage system erected between 1917 and the 1940s.

²⁰ <http://river>

²¹ Melbourne MDBA Consultation Meeting, October 28th, 2010

Suggestions by the South Australian government during the drought to introduce more barrages to the Lower Lakes area, in conjunction with increasing end of system flows, would do little to address the problems inherent in the modified system during severe drought events.

Further, The MDBA has given no consideration to the significant annual evaporation of 800 GL that has been occurring in the altered Lower Lakes system.

Finally, CEO Rob Freeman has explained the necessity of end of system flows on the need to export enormous quantities of salt from the Basin landscape, approximately 2 million tones annually. Flushing this amount of salt from the environment will be a difficult task given the alterations made to the end of the system.

Further, the issue of the Murray River and its tributaries as a “drain” to the MDB has occurred in isolation to other the wider Basin environment; Rivers are dependent on their environments for their health and vise-versa.

For the MDBA to consider the river in isolation to other areas of grass roots environmental management that has been undertaken by farmers within the Basin through initiatives such as Land and Water Management Programs (LWMP), represents a deeply flawed environmental rationale.

Farmers and irrigation provide justifiable environmental benefits that do not appear to have been recognized in the proposed Plan.

Recognising the changed nature of the river system for irrigation, recreational and critical human needs purposes, changes the way in which the river system is viewed and thus the apparent problems of an “over-allocated system”.

Australian rivers drain water from the landscape and are not the free flowing European canals with strong end of system flows; significant historical accounts attest to this.

The reliance of the MDBA on end-of-system flows as a panacea for the perceived environmental problems is of great concern; SRI believes that the best outcomes for rural communities will emerge from a more integrated approach to river health and the more productive use of water, across the board, through various environmental water saving projects, infrastructure upgrades and on-farm efficiency projects.

Acknowledgement by the MDBA that the proposed end of system flows cannot deliver realistic environmental flows and would cause significant third party to many, throughout the entire Murray system; acknowledgement of this is necessary for achieving real environmental flows and a sound outcome.