



# **Senate Standing Committee on Rural Affairs and Transport**

## **Inquiry into the management of the Murray-Darling Basin**

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**Introduction:**

High Security Irrigators' – Murrumbidgee (HSI-M) represents more than 1,000 irrigation farmers and food producers throughout the Murrumbidgee Valley. Our members include commodity groups that include citrus, prune, wine grape growers and food and fibre groups.

This document represents the views of the members of High Security Irrigators - Murrumbidgee. However, each member reserves the right to independent policy on issues that directly relate to their areas of operation, or expertise, or any other issues that they may deem relevant

## **The management of the Murray-Darling Basin**

Australia is a country of great variability in its climatic conditions. It is widely regarded as the driest continent in the world. As we have no great mountain ranges, that enable vast amounts of snow to accumulate and replenish our water storages throughout the Murray Darling Basin. Therefore, the predictability of river flows throughout the Basin can and does vary greatly. This cannot be said for the southern basin area, including the Murray and Murrumbidgee Valleys. Which both have had enormous infrastructure works built over the last hundred years, including dams, locks, weirs and even barrages, too "manage river flows".

The Murrumbidgee Valley was originally developed as an irrigation district under "The Soldier Settlement" schemes that run after both World Wars. This was seen as progressive and forward thinking, within both Federal and State governments at that time. It must be remembered that the original idea of the "Snowy Mountains" scheme was seen by the politicians of the day as "nation building". The building of long-term infrastructure projects, such as the Snowy Hydro Scheme, took many years to be completed. But this project, expanded the economy, jobs were created, increased migration to Australia and insured the future of Australia's food supply.

It is ironic that the Snowy Mountains Scheme, so proudly articulated by the governments of the day and providing years of valuable infrastructure for inland Australian's, should be seen as a "blight" on farmers and rural communities within the Basin.

High Security Irrigators – Murrumbidgee requests that the Committee should advise the Parliament that:

1. The Water Act 2007 is not aligned with the National Water Initiative as required under that Water Act.
2. The Water Act 2007 must be amended, to state categorically the triple bottom line outcome of social, economic and environmental.
3. Otherwise legal challenges could occur today and into the future, leaving communities, farmers and small business within regional areas with an uncertain future.
4. Works and measures must be developed within all stakeholders within the Murray Darling Basin and must form the part of any longer term solution.

## **Terms of Reference**

The management of the Murray-Darling Basin, and the development and implementation of the Basin Plan, with particular reference to:

### **(a) the implications for agriculture and food production and the environment;**

Food production within Australia is limited to areas that have either reliable rainfall or have a reliable source of water. The Murrumbidgee Valley and High Security Irrigators have the latter. The growing of intensive horticulture is very limited in its capacity to change from certain areas, due to a number of reasons, climate, soil type, availability of water and markets. This concentrates most of the growing of horticulture crops to the southern part of the Basin, which is supplied from either the Murrumbidgee or Murray Rivers.

The river environment within the southern part of the basin has changed dramatically over the hundred years. The developments of towns and cities along the rivers, diversions of consumptive and irrigation water, have altered the rivers. Locks, weirs and barrages have been built within the river system to alter the flow and to provide a greater stability of river flow, from the mountains to the sea.

The alternative is a river that would have a flush in spring from snow melt and the flows for the rest of the year would dramatically decrease. A number of cities along the rivers have historical buildings that relate to the great variability in the river heights over the last century. The most enduring site is the "wool wharf" at Echuca in Victoria. This wharf was built over a hundred years ago and is four stories tall, just to compensate for the variable river heights.

There has been no increase in capacity of water storages within the Murray Darling Basin for the last thirty years. Yet the population of Australia is set to increase to approximately 31 million by the year 2056. (1)

How can we use less water, but produce thirty per cent more?

### **(b) the social and economic impacts of changes proposed in the Basin;**

Water is the source of life within Basin communities. Without water, the ability to adapt and change the economics and industry focus are limited. Businesses are built upon the ability to access water, to bring employment and to stimulate the economy within the township.

The impacts of the Guide to the proposed Basin Plan are already been felt throughout the Murrumbidgee Valley. Communities have felt decreasing retail sales, reduced housing prices, lack of commercial building proposals, lack of investor interest and a decrease in personal net wealth.

These facts are very real, where in the world does government policy permit an independent government authority to decrease the net worth of 2 million people living within the Basin.

The longer term impacts on the Basin communities could be compared to the last few years of the drought. But with no respite! Confidence is the driving factor behind economic stimuli. Without confidence in the wider community, individuals and businesses make decisions to invest their monies elsewhere. Not in the community that they live in.

**(c) the impact on sustainable productivity and on the viability of the Basin;**

There are three main points to be focused upon in the development of regional communities within the Murray Darling Basin.

1. Environment protection
2. Social responsibility
3. Economic viability

Environment protection has come to embrace a rainbow of concerns. First and most basic, obviously, is the need to protect the natural resource base on which agriculture depends: in other words sustainability in its most literal and narrow sense.

Social responsibility issues impinge on sustainable agriculture more and more. With public health, food safety comes first including pressure for minimal pesticide and residues.

Economic viability is the third key feature of the sustainability agenda. It needs to be recognised more openly that many aspects of sustainability have added significant costs right down the food chain. Restrictions on crop production methods, traceability, inspection, certification and separate storage and distribution – these all cost money and there is an argument for realistic cost-benefit analysis as part of both commercial and official policy-making in deciding which measures deserve priority.

Judith Stubbs and Associates wrote in their report that a 25 per cent cut in water available for irrigation would cost the national economy \$1.4 billion annually and 14,000 jobs and \$2.7 billion in economic activity every year. (2)

The impact on food production is difficult to predict, due to the high degree of variables within the farming system, including price, weather, environmental factors etc. The Basin produces 40 per cent of the food and fibre and less than 1 per cent of the land is used for irrigation.

If all three factors are going to be appreciated for the long term, The Water Act 2007 must be amended, to categorically state the “triple-bottom line” effect. This would enable confidence in The Water Act 2007 to be restored, confidence in the government policy and confidence within the Basin communities to be restored.

**(d) the opportunities for a national reconfiguration of rural and regional Australia and its agricultural resources against the background of the Basin Plan and the science of the future;**

High Security Irrigators – Murrumbidgee, appreciates that there are opportunities to further develop agricultural and in particular, irrigated agricultural in Northern parts of Australia. But these areas, of particular interest are within the eastern seaboard and in a sub or tropical environment. These areas have a number of drawbacks inhibiting their future potential as productive irrigation land.

The areas, predominately on the eastern seaboard of Australia, they have a rapidly increasing population, within these areas there is a need for extensive residential, commercial and government infrastructure for the increasing population, thus encroaching on prime agricultural land.

Regional development of other intensive agricultural areas would need careful planning and development over 10 -25 years. These areas would need unlimited government support through

this period and would be a drain on the public purse. The majority of these areas are in “rain-fed” environments, or have little in the way of irrigation infrastructure to facilitate future developments. But in the end, farmers and agriculturalist will be the best judges for the future development in agricultural, not governments.

The Murrumbidgee Valley has many natural benefits that have allowed it to adapt to irrigated agricultural. The valley has what is best described as a “Mediterranean” climate. Therefore the summers are hot and dry, winters are cool and mild. This climate is optimal for the production of many horticultural crops, such citrus, grapes, onions, melon, and nut production, without the use of excess pesticides, fungicides and herbicides.

The irrigation water from the Murrumbidgee River is gravity fed, through locks and weirs, therefore less energy required to deliver water to the farm gate. And the area has had a high level of irrigation knowledge and management skills developed over almost 100 years.

**(e) the extent to which options for more efficient water use can be found and the implications of more efficient water use, mining and gas extraction on the aquifer and its contribution to run off and water flow; and**

**(f) the opportunities for producing more food by using less water with smarter farming and plant technology;**

High Security Irrigators – Murrumbidgee is a strong support of measures that will increase the overall efficiency of water within the Murrumbidgee Valley. Most of our members have over the years at their own expense; redeveloped their own farms with hi-tech irrigation layouts that include drip, fertigation systems, lasering and the ability to recycle water within the farming operations.

Governments’ assistance is required for the continuation and development of productive irrigated lands within the Valley. Improving irrigation infrastructure throughout the Murrumbidgee Valley, maintains regional communities reliant on the irrigation industry. It allows employment to be maintained or extended throughout the many and varied industries, including manufacturing of secondary and tertiary products associated with agricultural produce.

Governments have actively encouraged and engaged rural communities to develop, improve infrastructure works and be better managers of the irrigation water and land over many decades. All Governments, both state and federal have encouraged this activity, by the ways of subsidised, grants, low-interest loans and other forms of remuneration to the farming sector. This needs to continue.

### **Works and Measures**

High Security Irrigators – Murrumbidgee is disappointed with the Murray Darling Basin Authorities scant regard for the “works and measures” that are available to the Authority to improve environmental watering regimes.

High Security Irrigators – Murrumbidgee have through there championing of horticultural farming have always improved the efficiency of their farms by methods such as improved irrigation layout, drip irrigation and computer aided irrigation scheduling.

While High Security Irrigators – Murrumbidgee is not involved in infrastructure projects, many of our members are. These saving that dated back over twenty years have not been accounted for within the Murray Darling Basin plan.

As the states are the primary managers of the river system throughout the Murray Darling Basin, HSI-M asks that states be consulted in regard to the facts and the “works and measures” that are possible within the river system.

There are a number of working examples of environmental works and measures under, *The Living Murray*, *Water for Rivers* and *Riverbank* projects, all of which have returned water to the environment.

There are other projects such as the Murrumbidgee Efficiency Project, an initiative by the *Water for Rivers*. [www.waterforrivers.org.au/projects/current/murrumbidgee](http://www.waterforrivers.org.au/projects/current/murrumbidgee). (3) This project has an objective to save water through efficient, measureable and more precise control of the river flows, by computer modelling. This project will deliver water more efficiently to both the consumptive and to the environment.

High Security Irrigators – Murrumbidgee maintains that the focus on water buy-backs is effective reducing the potential of irrigators within the valley and the associated rural communities to make a living. This has the potential to reduced regional development within the Murray Darling Basin to a standstill. And therefore demolishing a cornerstone policy, of many state and federal governments, past and present.

The last ten years with the drought and other economic factors relating to agricultural has diminished the funds available within research and extension organisations, throughout the Murrumbidgee Valley. Government policy should embrace agricultural science and the expansion of research and extension of both irrigated and non-irrigated crops.

**(g) The national implications of foreign ownership, including:**

**(i) corporate and sovereign takeover of agriculture land and water, and**

High Security Irrigators – Murrumbidgee has no formal policy on the foreign ownership of land and water. Nevertheless, we do acknowledge that there may be an opinion or policy in future Governments, which would compel foreign individuals or companies to register their agricultural interests, at lower levels than are presently required.

**(ii) water speculators;**

High Security Irrigators – Murrumbidgee welcomes the trade of water in the market place, as long as it is open and transparent. We welcome other players into the market place and therefore increasing the competitive or commercial activities in the marketplace.

High Security Irrigators – Murrumbidgee requests that Government authorities, department and infrastructure operators, both private and publicly owned, trade there water and water entitlements at “arm’s length”. This would permit free and open market to exist on a commercial basis.

We welcome new water trading products to the marketplace; this would enable irrigator’s greater flexibility and the freedom of choice.

**(h) means to achieve sustainable diversion limits in a way that recognises production efficiency;**

High Security Irrigators – Murrumbidgee asks “what is sustainable”? Either for productive use in agricultural or water for use for environmental purposes. Through research and science we have to a large degree, quantified and qualify what is needed in the production of irrigated agricultural over the last fifty years. This cannot be said for the science relating to the environment or the water required for environment. As stated within the Guide to the proposed Basin Plan, the MDBA described the science as of “medium value”. (4)

**(i) options for all water savings including use of alternative basins; and**

HSI-M sees potential opportunities both within the Murrumbidgee Valley and other basin districts. We propose that all opportunities should be investigated as to their suitability and cost-effectiveness as relating to both the agricultural and government policy.

**(j) Any other related matters.**

The last points, High Security Irrigations wish to address are directed to the “triple – bottom line” effect, that has been so poorly presented with the Guide to the proposed Basin Plan.

**Scientific Data**

Of this scientific data that has to be categorised, it is only medium value. “*may not have been subject to peer review*” or “*a relatively lower level of confidence in the category*”. (5) Therefore the scientific evidence that has been presented by The Murray Darling Basin Authority has not been methodical and systematic in its gathering of the scientific evidence. Nor has the evidence or datasets used in the modelling of the river system been through “normal” scientific peer-review.

**Environmental Factors:**

There is an overwhelming assumption within the Guide to The Basin Plan, “just add water and all will be fixed”. The Guide to the Plan is under the premise, if you fixed one environmental site, all other sites will be fixed. The Murray Darling Basin Authority, hypothesis is that the Basin will be fixed by hydrological factors and hydrological factors alone. The Authority has not accounted for other factors that affect the health of the river system; these include land management practices and barriers to fish passage as two prime examples.

The Authority is amiss within the Guide as not providing information and guidelines in regard to the objectives of the Guide and how they relate or correspond to the objectives within the Ramsar Agreement. Within this agreement it states, “*Objectives must be quantified and measurable. If they are not measurable, it will be impossible to assess through monitoring whether they are being achieved*”. (6)

The supposition that the Authority is under, that “indicator assets” within the Basin are the basis of environmental health issues. High Security Irrigators –Murrumbidgee questions whether this science is just a hypothesis.



### **Social and Economic Factors:**

The Murray Darling Basin Authority has failed to meet its obligations under The Water Act 2007, by simply not following, nor balancing the “triple – bottom line effect” as prescribed within the Water Act 2007. *“the use and management of the Basin water resources in a way that optimises economic, social and environmental outcomes” (7).*

High Security Irrigators-Murrumbidgee considers the socio-economic data provided within the Guide, as totally inadequate in its detail, with no quantitative analysis and the use of the Gross Value of Irrigated Agricultural Production (GVIAP), does not relate to normal accounting practices, which relies on “profit”, “cash flow analysis” and debt to equity ratios. *“Of the evidence available to the Authority, the social and economic is the weakest” (8)*

The following statement within the Guide; *“The reduction in irrigated agricultural activity is modelled to be in the order of \$0.8billion/year gross” (9).* This statement has been and is well acknowledged as being incorrect, as both MDBA Chairman Mike Taylor and CEO Rob Freeman have conceded.

There are numerous secondary industries within the Murrumbidgee Valley that will be decimated by the reduction in water entitlements, such as wineries, packing houses and processors of primary produce. This will not only affect industry, but retails shops, schools, medical services and other auxiliary services that are reliant on critical numbers for particular services.

### **References:**

1. [www.abs.gov.au](http://www.abs.gov.au)
2. Social and Economic Impacts of Reduced Irrigation Water, Judith Stubbs and Associates , July 2010
3. [www.waterforrivers.org.au](http://www.waterforrivers.org.au)
4. Guide to the proposed Basin Plan, Volume 1 page38
5. Guide to the proposed Basin Plan, Volume 1 page35
6. Ramsar Agreement Handbook 3<sup>rd</sup> Edition 2007
7. The Water Act 2007, Part 2, Division1 Section 209 (d)
8. Guide to the proposed Basin Plan, Volume 1 page197
9. Guide to the proposed Basin Plan, Vouolume1, Executive Summary page20

**END OF SUBMISSION**