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South Australian Murray Irrigators (SAMI)

submission to the

House Standing Committee on Regional Australia

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

December 19th 2010

South Australian Murray Irrigators would like to take this opportunity to submit the following comments for the committees' information and perusal on the management of the Murray Darling Basin and the development and the implementation of the Basin Plan. We would like to present the following comments in addressing the Terms of Reference of the committee.

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

The SDL figures for the SA Murray region is unfair and places overly burdensome water recovery expectations on the South Australian Murray Irrigator. It is counteractive to the endorsed message of sustainable farming and efficient management for the future. The immense burden placed on the South Australian Murray Irrigator to sacrifice their entitlements to support further urban population growth (CHN) is a national issue being unfairly shouldered by the South Australian Murray Irrigator and this needs to be looked at and more fairly distributed in the national interest.

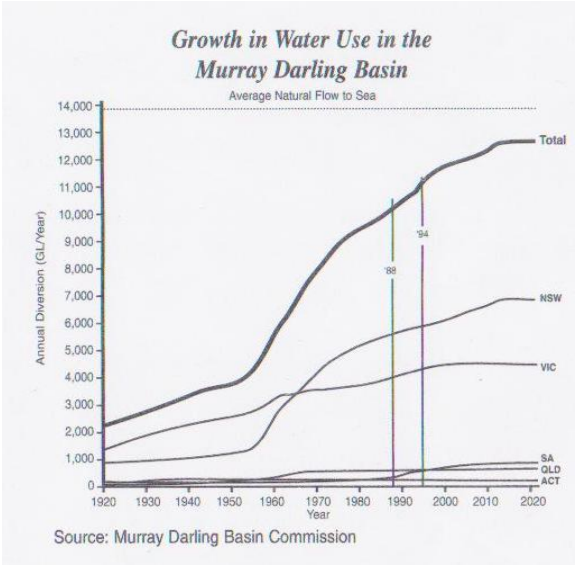
Irrigators and dry land farmers alike in the South Australian river regions are country people who love the land and care for its well being. Irrigators have actively worked with community groups and governments to encourage a range of monitoring and land enhancement actions to better enhance the local environment in which they live. This should be recognised and encouraged.

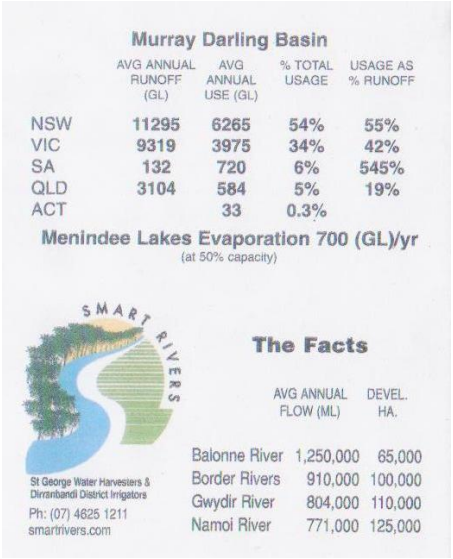
The South Australian river regions are predominantly Agriculture based and their regional communities and economies are highly reliant on irrigation dependant industries such as horticulture. South Australian horticulture also has the highest $ return per ML of water used across the basin and this should be nurtured and encouraged in the national interest. There are limited locations throughout the basin where this is geographically possible and favourable.

The South Australian Murray Irrigator is being more severely impacted upon by the whole water reform process particularly as there are fewer margins for error in a finely tuned water management system. The Water for the Future funds are not accessible to SA Murray irrigators due to their historic management and yet we are expected to find further water savings. South Australia needs to share in the recovery volumes across the whole basin which is our Valley. State border management and accounting is hindering common sense management decisions, which is impacting on sustainable productivity and the viability of the Basin, but particularly the South Australian Murray Irrigator.

- **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 15 years.**

Recognising the policy and water management actions of State governments since the1970s will highlight where over-allocation has occurred and who have been the big winners and who have been the big losers under the water management policies of the past decades. Efficiency measures have been born out of necessity, and forward planning and efficient land management behaviour should be recognised and rewarded. The below graphs highlight this. The current diversions in upstream states may be higher than the figures expressed on these graphs due to the older date of this publication.





The South Australian Murray Irrigator began attending intensive Rivercare and subsequent Irrigation Efficiency courses since the early 90's These initiatives have taken 20 years to filter their way through to the overwhelming majority of irrigation businesses with efficiency as the SA state government estimates it* of >85%. (*Water past the root zone and efficiency use calculations outlined in the Water Allocation Plan for the South Australian River Murray prescribes watercourse.) SAMI feels it is important to outline a standard for Water Use efficiency that can be compared by irrigators, across state borders. This would encourage efficient management practices by Basin river business and communities through peer learning and meaningful comparisons.

Options for water savings are many but the cost benefit analysis must be sold to governments and prioritised against a triple bottom line scenario not just a $ one. Dam covers, dam low flow bypass systems, wetland wetting and drying regimes and structures, lock re-design and upgrades, pump & suction conversion for major irrigation districts, storm water recycling, Salt Interception Scheme water recycling just to name a few. One over looked area of efficiency with water saving potential is the GPS technology that is available for pivot irrigation systems. There are evaporative savings to be made here using tailored sprinkler types that provide and efficiently utilised water droplet size and GPS jet management technology.

Channel fed irrigation systems throughout the Basin should follow the lead of the Loxton Irrigation District upgrade initiatives and engage in the building of pipe-fed pump and suction systems with metering. This would remove the notion of stranded assets to an extent because once the system is in place there are no transmission losses for delivery of the water regardless of the properties location. There also needs to be more solid data around channel seepage v evaporation losses and apply this knowledge to the many km of known gravity fed irrigation channel systems. Modernisation to pipe is a necessity for irrigation systems in the modern world of maximum benefit for use. Savings made from the expenditure of nationally collected tax payers dollars should be shared across the Basin and go towards offsetting the volumes required for the Environmental Flows and Critical Human Needs. The South Australian Murray Irrigator should not be unfairly punished by the inadequacies and unfairness of cross-jurisdictional water management policies.

- **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.**

South Australian Murray Irrigators had a highly secure water product previous to the restrictions imposed before the severe drought years post 2003. This was encouraged by historical agreements, legislation and policies and regional communities have grown around this assurance. During the drought, and now on the eve of a flood, we are calling for an even playing field water management regime. Section 51 of the constitution allows for the commonwealth to dictate the terms of this and should use their powers to do this and allow farm gate businesses to go on farming in a known, stable and fair water trade environment with consistent rules and products across state borders.

Research sector needs to conduct true, unbiased scientific research in the interest of communities, industry and government. Communities, via industry and the consumer should assist in steering the research direction. Scientific agendas should not be forced by specific interest groups and procedures for scientific validation of research should be explored.

Some level of water input security and reliability is needed to sustain business into the future. Particularly as water use efficiency levels increase and become more precise. Regions where permanent crops can be grown efficiently and sustainably have less margin for error. Water volumes and its reliability needs to be known 5-10 years out before significant capital infrastructure will be committed to. The South Australian river regions have made these decisions based on historic water policies. This integrity is being eroded and needs to be restored. It is on this basis that SAMI believes a portion of entitlements purchased by the government do, most definitely, need to be ripped up as this cuts to the core of allocation certainty for businesses and the environment. There should be a boost in the reliability of water for remaining entitlement holders. This provides integrity in the system.

- **Measures to increase water efficiency and reduces their consumption and their relative cost effectiveness**

In investigating water efficiency measures it is important to define efficient water use. This can de expressed as productivity per mega litre, current $'s or future $ terms. The opportunity cost of the next best alternative use of the resource, or wasted water irrigated past the plant root zone. Or should social fairness come first and empower people to be in control of their own destinies regardless of the current perceived optimisation of the resource. How do you put a cost on the environment and the security of the resource?

The efficiency question can be subjective and meaningless if you are not comparing apples with apples and looking at efficiency in terms of several interpretations.

The policies, rules and conditions affecting water access products needs to be spelled out and secured at river condition trigger points to facilitate fair and consistent trade in a known and even trading environment free from influence. This will facilitate optimisation of the resource use so long as social impacts are weighted appropriately.

The dropping of lock levels in the lower reaches of the Murray after floodplain and wetland floods would allow salts and nutrients to be pulled into the river channel and exported through and out the mouth of the system. This should be coordinated and managed to provide a maximum environmental and hydrological benefit to all river users. This type of management actions need not hinder the environment (which is quite adapted to certain levels of salt) and irrigators and other water users who can coordinate their pumpind activities to minimise high salinity water flows which could be minimised using controlled and adequate dilution flows. Condensing salts and nutrients in inundated anaerobic evaporation pools will only lead to acid sulphate soils and salinity issues.

In South Australia, Lake Albert (the smaller of the two Lower Lakes) has a hydrology that is not conducive to effective and efficient flushing of nutrients and salts. It is suggested that flow through actions (engineering solutions) be investigated and the science and costing measured and estimated. This type of action, if employed, would enable less quantities of water to be required to reduce the nutrient and salt loads that accumulate in this lake from evaporation and poor water movement. Initial estimates and ideas have been pursued in this area and should be reviewed and expanded upon to assess it's potential.

Environmental watering efficiencies is a contentious issue in the River regions of South Australia. Communities understand the need for a healthy environment and environmental refuges in times of drought. But several simple solutions have been suggested to state government agencies that often get dismissed as pie in the sky ideas and not further pursued to investigate their potential. One of these ideas was the laying out of relatively inexpensive polly-pipe to stressed red gums to provide them with life sustaining waters (environmental irrigation). A simple and effective solution that could remove the need to flood vast areas of floodplains in times of drought. (SAMI also supports the need for periodic medium and high level overbank flows in years when inflows are more favourable.)

- **Opportunities for economic growth and diversification within regional communities; and**

The opportunity for growth and diversification with-in regional communities is only limited to imagination and opportunity. South Australian irrigation industries are, to date, the most prevalent industry in regional economies. Skills amongst the regional populations is centered around this and further re-skilling and training would be required should any alternative industries be fostered. The impact on local towns from the reduction of irrigation production should be weighted with the geographic suitability and ability to adjust before life shattering policy decisions are made.

Previous relevant reform and structural adjustment programs and the impact on communities and regions

This is something that the South Australian Murray Irrigator has been employing and refining since the salinity impacts of the '70s. This has culminated in South Australian Murray Irrigators fostering a sophisticated level of soil moisture monitoring technologies, scheduling options and pump & suction water delivery systems. There is a need for this to be emulated across the basin and the savings put towards our national assets irrespective of state boundaries.

Businesses respond to known parameters. Efficiency calculations should be determined and publicised for community acceptance and inspiration. These should also be standardised across the Basin according to flow regimes, soil types and crop types. Commodity prices should be periodically factored in, but weighted less due to the seasonal variability and world market volatility of this area. The market needs to determine what it grows and how, but policy makers need to put in place known guidelines for certainty and stability in business management.

The metering initiatives imposed on the South Australian Murray Irrigator both during and pre drought has seen the development of a very accurate metering system resulting in highly accurate known levels of extraction per annum. A consequence of this is that businesses and irrigation systems have been managed with a limited and precise buffer of error. This buffer has been used and diminished or erased by the restrictions bought on by drought, to the point where businesses have been forced to enter the water market and purchase further volumes to sustain high value permanent plantings and maximise the capital farm expenditure and production commitment ($hundreds of thousands to $millions of dollars of mostly private and some government infrastructure.)

An option to address community incentives to encourage sustainable behaviour is through retrospective regional payments for past innovative behaviour by both state governments and private landholders and community groups. If such schemes were considered this should be in addition to the current funding commitments. Such a scheme could look to support regional communities through drought and flood mitigating community funds that act as an insurance fund to guard local communities from the extremes in climate scenarios into the future.

The issue of water product security and consistency is one that is being overlooked and is imperative in the long term integrity of any future management regimes across the entire Murray Darling Basin. Below is a frequently asked question from the current round of Southern Basin Water Tender. SAMI does not agree with the intention by the government that is expressed in the answer to this question and would like to request that the matter be given further thought. Retiring and 'ripping-up' water and assisting irrigation industry reliant communities (All SAs river communities)

'Q13: Will entitlements purchased by the Australian Government be ripped up or retired?
A: No, entitlements acquired by the Australian Government for the environment will be managed by the Commonwealth Environmental Water Holder to protect and restore water-dependent environmental assets. Ripping up or retiring acquired entitlements would only boost the water available for the remaining entitlement holders. Entitlements purchased by the Australian Government will retain their original characteristics and the Commonwealth Environmental Water Holder will be liable for all future headworks and delivery charges'.

Thank you for your time in receiving our comments on this important matter.

Yours sincerely

Caren Martin – Chairman
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For more information contact Caren Martin on

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