South Australian River Communities

Submission

to

Senate Committee

Inquiry on Management of the Murray Darling Basin

December 6 2010

Contents

Executive summary

The South Australian River Communities (SARC) group represents industry and community organisations covering 3,000 food producers, approximately 50,000 ha of farming land, and regional communities with in excess of 48,000 citizens with a regional product value over $1.5 billion. SARC member organisations are:

- Almond Board of Australia
- Citrus Growers of South Australia
- Central Irrigation Trust
- Local Riverland Councils
- Renmark Irrigation Trust
- South Australian Dried Fruit
- Lower Murray Irrigation Association
- Riverland Winegrape Growers Association
- South Australian Fresh Fruit Growers Association
- South Australian Murray Irrigators
- Golden Heights and Sunlands Irrigation Trusts
- South Australian Citrus Industry Development Board

Comments on the guide to the proposed Basin Plan

The South Australian River Communities group believes a well developed and executed Murray Darling Basin Plan should result in a healthy river, strong Australian food production and strong regional communities. The draft plan described in the Guide does not provide the necessary balance to achieve this outcome.

Water is a scarce and precious national resource and we strongly believe a truly balanced and innovative long term basin plan would:

- Recognise and reward regions that have displayed an ability to operate within defined water resource limits over a long period of time.
- Recognise and reward regions that have been innovative and already invested heavily in world class efficient water saving infrastructure.
- Target large water savings made possible by re-plumbing key areas of the system before seeking to remove water from communities that currently produce the highest dollar return per hectare of irrigated land.
- Consider the real water savings available via innovative management of the environmental water program before setting the sustainable diversion limits (SDL).
- Achieve a “Basin without Borders” philosophy that is not applied selectively.
- Correct disparities created by the disproportionate affects mandated levels of Critical Human Needs would have in different areas.
- Ensure this historic opportunity restructures the Murray Darling Basin system so the domestic, industry, environment and food producing sectors are better equipped to operate in a dynamic environment.

The Guide to the plan does not provide this.

South Australian River Communities recommendations

SARC acknowledges reform to the Murray Darling Basin system is critical and necessary. As communities located at the bottom of the system we are acutely aware that a healthy river system is paramount to our long term survival. However, we are also aware that a proper balance is needed to achieve the environmental, food production, economic and community outcomes required.

To that end we recommend:

- A high priority is placed on significant, targeted water saving measures in those areas of the MDB that could be re-plumbed with world class infrastructure works via the Commonwealth Government's Water for the Future program. The savings from which could then be socialised across the entire MDB (i.e. a "Basin without Borders").
- A significant investment in innovative environmental infrastructure and water use efficiency methods to achieve water savings whilst still satisfying the needs of the environmental watering program. The savings from which could then be socialised across the entire MDB (i.e. a "Basin without Borders").
- "Targeted" water buy back continue.
- A "Basin without Borders" approach to Critical Human Needs Water, ensuring these needs are achieved prior to determining SDL impacts.
- The same level of scientific and legislative rigor is imparted on all water users, be they irrigators, the environment, domestic or industry.
- We contend that significant water savings can be realised from the above programs thus decreasing any verifiable SDL required of the basin's food producers. This is a win for the environment, a win for Australian food production and a win for communities.
- SARC offers input and discussion with those who share our long term vision for a healthy, productive and balanced Murray Darling Basin system.

This submission not only addresses the Guide to the draft basin plan, it also provides SARC's thoughts on a transformation package that may assist our communities adjust to the future that being imposed on us.

SARC would like to actively enter into a dialogue on any issues mentioned in this submission.

If you would like to discuss any of these issues further please contact our spokesperson Ben Haslett on 0438 317 559 or our chairman Gavin McMahon on 0419 038 962.

First response to the proposed Basin Plan

The South Australian River Communities is a group with members from the Almond Board of Australia, Citrus Growers of South Australia, SA Citrus Industry Development Board, SA Fresh Fruit Growers Association, Riverland Winegrape Growers Association, Central Irrigation Trust, Renmark Irrigation Trust, South Australian Murray Irrigators, Golden Heights and Sunlands Irrigation Trusts, South Australian Dried Fruit Industry, Lower Murray Irrigation Association and Local Riverland Councils.

It represents over 3,000 food producers, farming approximately 50,000 ha of agricultural land, a regional population of in excess of 48,000 people with a regional product value of $1.5 billion. The foundation of our communities is water, comprising 544 Gigalitres of Long Term Cap Equivalents.

SARC formed specifically to ensure a cohesive and unified approach in replying to the Basin Plan from our region. It believes a well developed and executed Basin Plan should result in a healthy river, strong Australian food production and strong regional communities. It believes the draft plan described in the Guide does not provide the necessary balance to achieve this outcome, and in its current form is totally unacceptable to our community.

If the plan is implemented in its current proposed form SARC believe that due to specific water licensing, policy and planning circumstances existing in South Australia that significant detrimental community impacts will result as the number of South Australian water access entitlement's used for agriculture are reduced by up 60% to meet the plans new SDL expectations.

Socio Economic Impact

SARC believe that the socio economic study presented in the guide grossly underestimates the impact this plan will have on our communities. There are a number of papers and studies that demonstrate the impact of the proposed plan would be significant on our communities, including

1. Marsden Jacobs and Associates 2010 "Delivering the Basin Plan – Economic and Social Profiles and impact assessment in the Murray Darling Basin" prepared for the Murray Darling Basin Authority in May 2010. The section pertinent to the Riverland region of South Australian is title "SA Riverland community profile".
2. Judith Stubbs and Associates 2010 "Exploring the Relationship between community resilience and irrigated agriculture in the Murray Darling Basin: Social and Economic Impacts of Reduced Irrigation Water" Appendix 6 Mildura Rural City Case Study.
3. The Economic and Social Impacts of Key Industries on the Riverland by the Riverland Socio Economic Impact Report Steering Committee in April 2007

These studies indicate that major reductions to water entitlements will have a significant negative impact on the communities.

The Marsden Jacobs Associates report indicates that our *"5 medium sized towns are all highly dependent upon horticulture and its secondary processing industries. The region has a high vulnerability and dependence on water. The community has a low ability to cope with a reduction in water allocation. Perennial plantings have no capacity to vary planted area with changed water availability. There is very little scope for transformation to dry land farming given the small property size and the regions very low rainfall."*

The guide to the plan in its current format will more than likely see a reduction of 50% of irrigation entitlements in the South Australian Murray. The Marsden Jacobs Associates report shows that "*a 40% reduction in Long Term Cap Equivalents would see: Drying off of larger areas, Critical mass of many industries threatened, Community District viability threatened.*"

The guide to the Murray Darling Basin Plan and the socio economic studies are making our communities feel exceedingly insecure about their future and continuing contribution to the nation.

Given the direct relationship between available water and production in our region if extractions are reduced by 25%-35%, gross value of production will reduce by 25-35% ($300 million to $400 million) and our population will reduce by 25%-35% (8,000 to 11,500). This is equivalent to closing two major Riverland towns, and causes significant concern as to what point our major processors such as wineries, packers or beverage manufactures will dissolve.

Our region produces 25% of the nations wine as well as citrus, nuts and stone fruit. Much of the produce is destined for export and subsequently a significant earner export income generator for Australia.

Recommendation

The socio economic studies conducted in the Riverland are used as a basis for the socio economic impact in this region. The suggested reductions by the MDBA guide would see a decimation of our community and such reductions cannot be allowed.

Rewarding historical good performance

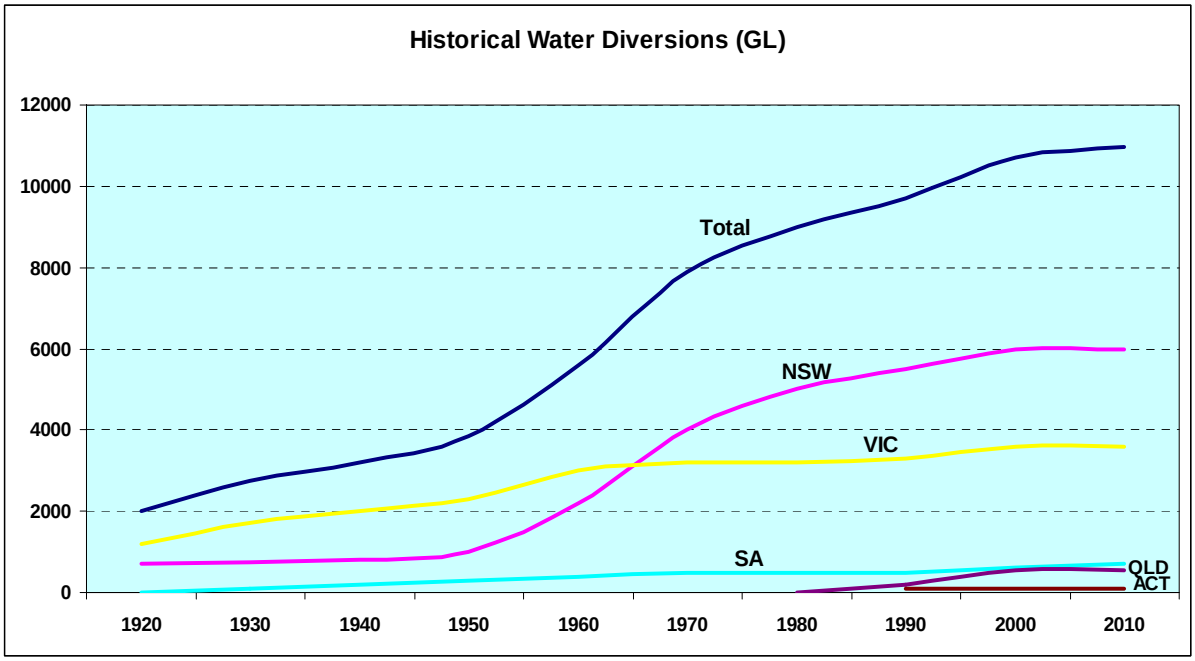
Unfortunately, the plan described in the Guide does not reward compliant or innovators in the Irrigation Industry. For those States that capped diversions early, invested in infrastructure to minimise wastage and have continuously extracted below the current caps - the plan in its current form penalises you. There are very few situations in life where good performances are penalised.

If the plan continues in its current direction and the MDBA does not reward historical innovation and good performance by using baseline data that is comparative between states, then the authority should socialise critical human needs and water savings from infrastructure spending before determining the SDL's.

SARC are extremely disappointed that the Guide to the proposed Basin Plan does not recognise South Australia's historically responsible behaviour in restraining from issuing new water entitlements.

Whilst South Australia has achieved increased economic activity from Murray Darling Basin water resources through efficient management of its limited water resource, others have done so largely through increased allocation of water.

The following graph[(1)] clearly indicates the restraint shown by South Australia to water allocation and diversions.



[(1)] Previously sourced from MDBC

It is unjust to selectively implement a "Basin with no Borders" approach that uses 2008 as the base date from which to determine SDL's and as a result ignores historical past actions and performance.

Our Recommendation

We believe South Australia's constraint in issuing of water entitlements and significant irrigator and State government investment in irrigation infrastructure should be recognised in the plan, and any reductions in diversion limits in the plan should be significantly less for South Australia.

Sharing the savings from infrastructure renewals

South Australian irrigators and the State government have already invested in highly efficient water delivery and on-farm irrigation systems. This has been in response to capping of extractions in 1968, requirements for precision irrigation and our proactive response to environmental management. Consequently, there is little opportunity for South Australia to invest in irrigation infrastructure to recover water.

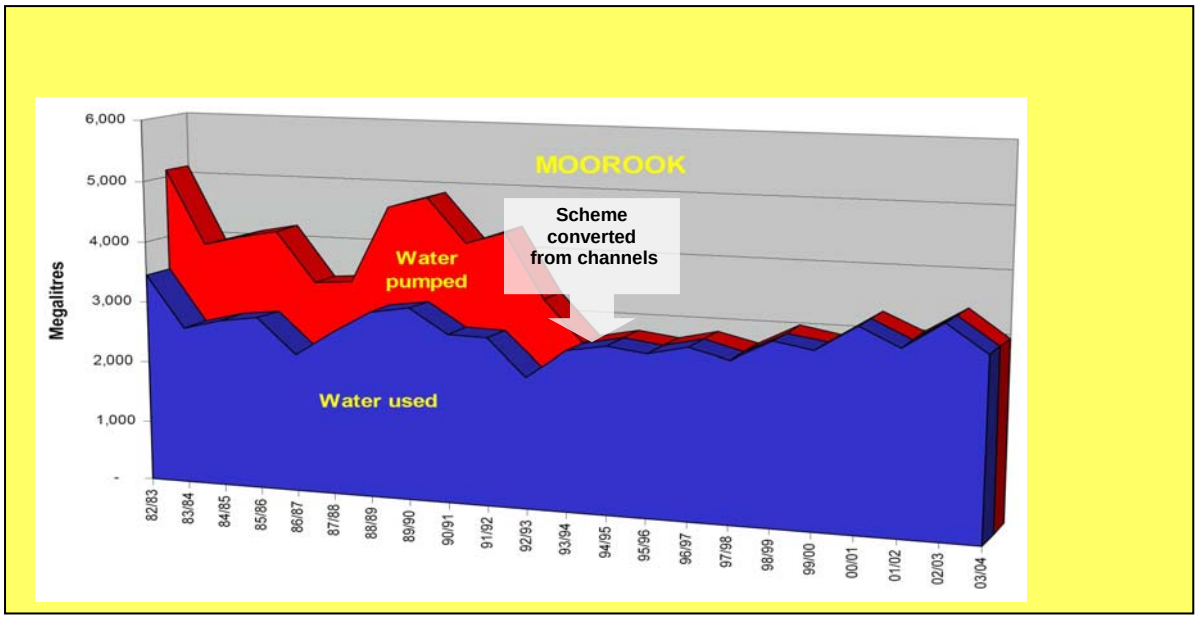
The following are examples of the effectiveness of system upgrades implemented in South Australia:

- A CSU International Centre for Water hotspot project as part of the Renmark Irrigation Trust modernisation project demonstrated that this community system was 97% efficient.
- Water use efficiency calculations provided to DWLBC in 2004/2005 as a licence reporting requirement demonstrated that on average, 1,400 CIT irrigators were 96% efficient in their water applications to their crops.

These results demonstrate the potential for large water savings in other regions of the Murray Darling Basin from infrastructure upgrades - South Australia has already achieved this over the last forty years.

The following diagram is indicative of savings from infrastructure upgrades already made in South Australia.

Rehabilitation of the Moorook Irrigation Scheme
Rehabilitation Improvements



Consequently, any water recovered from South Australian irrigators for the environment will have a direct, negative impact on production. Due to the proposed SDL's, the socio-economic impacts on South Australian irrigators and communities will be much greater than for other regions. Again we see no reward for innovation or early adoption of technology.

Our Recommendation

SARC recommend, as a first priority, that water distribution and on farm system upgrades across the Basin resulting systems providing the highest level of efficiency possible be accounted for in implementing SDL's. Water saved from these upgrades will offset significant portions of the extra water required for the environment. (cont)

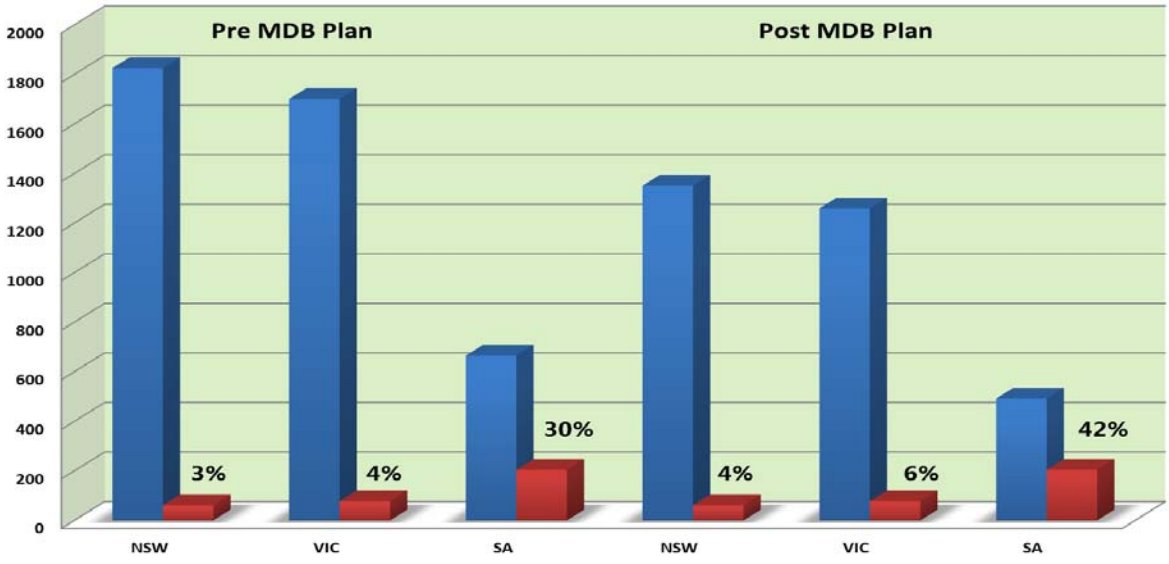
In instigating a "Basin with no Borders" policy for the starting point of the plan this policy should also be implemented in respect water savings, particularly given the major water savings will be made "upstream" and can be easily attributed to "downstream" and all areas of the basin.

Such a strategy would ensure that South Australia is not disadvantaged for having previously invested in infrastructure and other regions would have their infrastructure upgraded to modern standards, and the entire Murray Darling Basin share in the savings created.

Critical human needs water - a "basin with no borders" approach

Another major issue that concerns our communities is the proportion of Irrigation Entitlement with respect to Critical Human Needs Water (CHNW). This ratio is significantly different amongst each of the Basin states as seen in the following graph:

South Australian River Communities
Diversions vs. Critical Human Needs (GL) – Scenario 1



A key point in the Guide states “Water set aside and used for critical human needs will be included in the long term SDL for each region. Water resource plans will have to provide for CHNW as the highest priority.” This statement clearly directs all states that CHNW or domestic water entitlements (class 2 or class 6 shares in SA) will not be cut.

Consequently, as a result of the CHWN impact alone South Australian Irrigation Water Entitlements face far greater reductions than those in other states. This impact for the Guide’s Scenario 1 will increase South Australian irrigators SDL reduction to 37.5% and in Scenario 3 to 50%. As a result, under the current proposed plan, South Australian irrigators become the most disadvantaged of any in the Murray Darling Basin, a situation we cannot tolerate.

We find it difficult to believe the MDBA would use a “Basin without Borders” approach in determining reductions in SDL's but not ensure a similar approach in providing for Critical Human Needs. This is in fact “Basin without Borders” selectively applied.

Any proposal to “protect” water for Critical Human Needs provides no economic drivers or incentives for holders of these entitlements to reduce their water use, or effectively implement alternative supply strategies such as desalination and storm water recovery. SARC believes water for Critical Human Needs described in the Guide is luxurious, particularly during times of extreme water stress, when all water users should be subjected to the same level of reductions.

Our Recommendation

All CHNW (including licensed domestic use) from all states should be determined collectively, and provided for prior to determining individual states SDL’s. This ensures that the SDL impacts to irrigation water users are relative.

Alternatively the Plan should mandate that Class 2 and Class 6 Water Access Entitlement Shares as per the SA Water Allocation Plan for the River Murray Prescribed Watercourse not be immune from reductions required to meet SDL’s.

Validity of the current diversion limit data

We question the “Current Diversion Limit” for the SA Murray of 665 GL outlined in the Guide. We have been unable to reconcile this with existing South Australian licensed entitlements or capped water diversion limits. It is unclear what adjustment, if any has been made to account for the net interstate transfer of water entitlements by SA growers that occurred prior to the introduction of tagged entitlement trading.

Our understanding is that existing South Australian Water Allocation Plan (WAP) water entitlements total 824 GL (plus 200 GL for wetlands allocations), whilst South Australia's CAP on diversions under the Murray Darling Basin Agreement as set out in the "Review of Cap Implementation 2007/08" is 724 GL

The 724 GL diversion cap is unadjusted for permanent entitlement trades transacted prior to implementation of the tagged entitlement trade policy. We believe that the trade adjustment to be at least 40 GL, thereby increasing the diversion cap to 764 GL.

Data for current diversions should not be based on average extractions volumes as this penalises States who have historically responsible water users. The Guide discusses the need for a robust water trading market based on water entitlements but the diversion limits do not respect such property rights.

Our analysis indicates that South Australia has more water entitlement endorsed on water licence than is provided for under the existing Murray Darling Agreement diversion caps, and we are having difficulty in reconciling the difference.

Our Recommendation

We recommend that the "Current Diversion" as outlined in the Guide be re-examined and adjusted to reflect cap diversions as per MDBA publications and that this data is adjusted for any permanent trade that occurred prior to the introduction of tagged trading. The current Diversion Limit for SA should be 764 not 665 as outlined in the Guide and subsequently, the revised caps or sustainable diversion limits should be 591 GL for scenario 1, 561 GL for scenario 2 or 532 GL for scenario 3.

Impact on SA irrigators

Thus as a worst case scenario for SA Irrigators if they were to bear all the reductions of the new SA Murray SDL outlined in the Guide, which we believe would be as follows:

MDBA Guide	Scenario 1	Scenario 2	Scenario 3
Proposed Diversion Limit Reductions	173 GL	203 GL	232 GL
Reduced Diversion Limit	492 GL	462 GL	433 GL
Less licensed CHN entitlements	194 GL	194 GL	194 GL
Avialable for non CHN diversion	298 GL	268 GL	239 GL
Non CHN entitlements (*ex TLM*)	592 GL	592 GL	592 GL
SA irrigation entitlements reduction to meet new diversion limit *(approx)*	***50%***	***55%***	***60%***

SARC believes any reasonable person would understand that this would devastate the SA irrigation industry and their supporting communities.

Our Recommendation

The MDBA diversion cap data, which is appropriately adjusted for permanent water trade, be used for current diversions data in the plan. More realistic reductions to SA irrigation communities must be implemented.

Biological data

Much of the data for the ecosystem functions and environmental assets has been modelled or relies on data collected by CSIRO and government agencies, and one of the main documents used at the community consultation was the CSIRO Sustainable Rivers Audit. SARC wonders how much of your data was collected or modelled through the current period of abnormally low inflow conditions, the worst event in white settlement of the Murray Darling Basin.

Assessing the Basin during this period could be considered comparable undertaken assessments following other climatic catastrophes such as the Indonesian Tsunami, Hurricane Katrina in New Orleans, or the recent Victorian bushfires. Studies undertaken directly after these events would show significant damage to the environment, although are not reflective of the long term situation.

Measurements taken during the recent major drought such as the CSIRO audit, whilst detailing the specific situation, it is likely to produce a skewed longer term view of the health of the River and connected areas. If data had been collected in 2011 there could well be a different assessment. We all remember the calls from environmentalists that if water was not returned to the lower lakes in October 2009 they would die. This has not come to fruition. Predictive models can also be misleading. Some models such as hydraulic modelling of pipelines are very accurate however as the models become more complex, assumptions become less accurate, and you deal with systems that have buffers and resilience their predictive nature becomes less reliable and their outputs may be no better than random outputs. As a result SARC believe caution is needed in accepting modelling where baseline data is constructed, and data is collected in extreme conditions. Throughout the MDBA Guide it refers to the ‘uncertainty’ in the science. As just discussed ‘best available’ can be very doubtful or wrong.

Our Recommendation

That the MDBA take the precautionary approach to the new diversion limits and move forward slowly so that we do not crush communities only to find that the predictions were inaccurate.

Ecosystem health - environmental efficiency and works

SARC recognises that it can play a role in addressing the 3 major impacts on river health in South Australia that have led to the South Australian River Murray ecosystem health and hydrological status as being rated as “poor” in the Guide.

SARC represents communities who have observed the decline in health of red gum forests, the decline in fish and waterbird populations and the degradation of floodplains and wetlands.

SARC recognises the causes of decline in order of greatest impact:

- Reduction in frequency of small and medium flood flows of 30,000 to 80,000 ML/day that provide freshes and overbank flows;
- Change in hydrology of wetlands from ephemeral to permanently wet or permanently dry;
- Barriers to fish migration and flow of carbon and nutrients between floodplains and the river;
- Irrigation drainage impacts and salinity impacts prior to irrigation infrastructure and on farm irrigation equipment upgrades.
- Non-water related impacts including introduction of exotic plants and animals.

SARC recognises that the Guide is an important first step to finding sufficient water to improve the hydrology of the River Murray and increase small and medium flood flows.

Experience in South Australia has demonstrated that drying of permanent wetlands has improved biodiversity and resulted in quantifiable water savings. Infrastructure funds available under various Commonwealth Government programs should be directed to permanent wetlands that can be easily dried or partially dried close to their natural frequency to save water through less evaporation.

In principle, the wetland refill volumes should be treated as delivery water or water for ecosystem services and not be deducted from the environmental allocations, and in that way there will be increased incentives to find water through drying permanent wetlands — creating an ecosystem benefit and saving water.

Water savings through increased efficiency in providing ecosystem services can help to reduce the volumes of water to be found from irrigation communities. SARC also seeks more information in the revised Guide and Plan on the proposed methods to increase the frequency of small to medium floods in the South Australian River Murray section.

Our Recommendation

SARC recommends a Basin wide sub-catchment review of opportunities to find further water savings by drying permanently full wetlands and directing infrastructure funds to sites where biodiversity benefits and water savings can be achieved through efficient environmental water use and environmental infrastructure works.

Implementation issues

SARC question the need for reduced diversion caps. This position is based on the fact the Commonwealth Government has stated it will recover the gap between existing diversions and SDL's by obtaining the ownership of the water entitlements with its current characteristics. Any reduction in current diversion caps for extraction is not practical as the Commonwealth Environmental Water Holder's consumption would remain within the diversion limits.

The Federal Government's decree is that water they purchase will retain the same characteristics as applied before it was purchased, meaning that it cannot be transferred to another class of water and remains in the consumptive pool. It also means that the Water Entitlements held by the Irrigator and those held on behalf of the environment will be treated the same and no one receives preferential treatment. The new diversion limits as they appear in the Guide will not work as they remove the environmental water from the diversion limits.

We believe to implement such significant change over such a limited time frame would be difficult. To commence implementation in 2014 and step the change in over a five year period requires communities to be rapidly adjusting to major change.

It is our view that change should be gradual and equitable across all states to allow our communities time to appropriately adjust to a new future with less water. It has taken the governments many years to create the current situation and it should be unwound over a more realistic time frame. A longer time frame will also be less arduous on the Federal Government in buying the required water entitlements.

Our Recommendation

The existing MDA diversion CAP's to remain unchanged, allowing the Commonwealth Government Water Programs to facilitate return of water to the environment through the change in ownership of water entitlements from private hands to the Commonwealth Environmental Water Holder. That the transitional period is gradual so that our communities can adjust to a new future rather than the current five year shock we will experience.

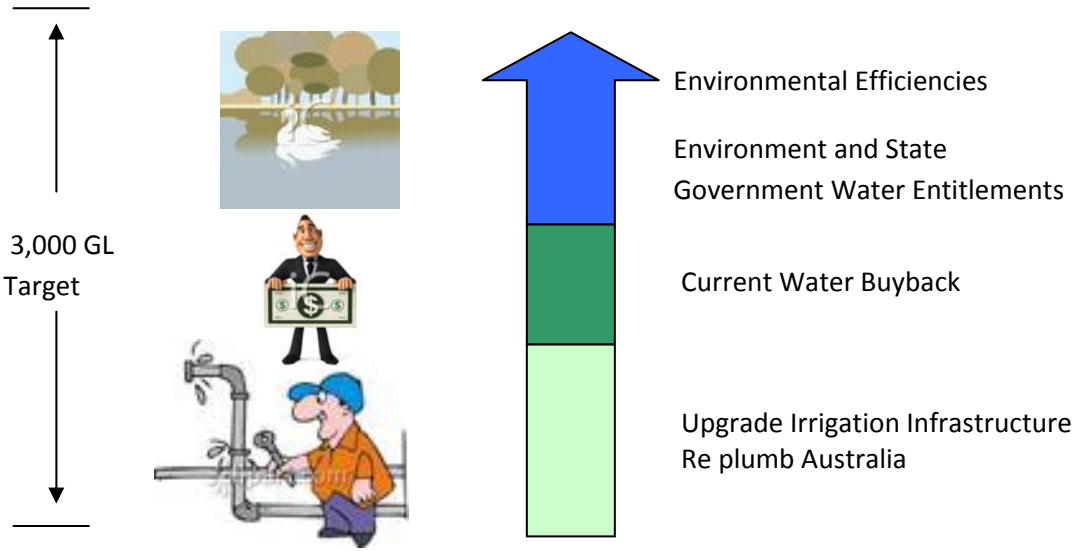
Our solutions

SARC believe the suggested reductions in diversions are too high and if applied as outlined in the Guide would decimate the SA Irrigation Industry and the region's it supports. We believe the water already secured and to be secured by the Water for the Future Program, The Living Murray and Water for Rivers will see significant amounts of water removed from the consumptive pool and returned to the environment.

We believe the Water for the Future program should be pursued with vigour and the savings transferred to the Commonwealth Environmental Water Holder. This will result in re-plumbing of Australian irrigation systems and a claw back of significant Water Entitlements for environmental use.

Significant volumes of water are to be recovered from environmental efficiencies and environmental engineering solutions such that evaporative loses are reduced and improved environmental outcomes can be achieved with smaller water volumes.

State Governments and environmental groups hold significant volumes of water entitlement and this should be discounted from extractions. As the Commonwealth Government becomes the owner of Water Entitlements there is no need to change any of the current diversion caps or state water sharing plans as water market mechanisms will see the transfer of water from the consumptive pool to the environmental pool.



If the above suggested solutions are not adopted SARC would like to see a more equitable solution for all states and irrigators.

If your baseline starting point is socialised commencing in 2008 or you use a "Basin with no Border's approach we would like to see consistency of the approach through all principles and processes, specifically:

- Critical human water needs entitlements from all states should be grouped and set aside as a must provide pool of water catered for before any SDL's are calculated. This ensures that the CHNW is not allocated to or accounted for by individual states in the new SDL.
- Infrastructure spending is accelerated and water savings from these projects are added together and subtracted from the total savings required before SDL's are calculated.
- Any savings from Environmental engineering solutions are added together and subtracted from the total savings required before SDL's are calculated.

Transitional shock in our communities

As a group we have heard significant debate on water and the environment but very little sensible debate on how any of our communities will be assisted in adjusting to the transformational shock the Murray Darling Basin Plan will thrust on our communities. We ask where are the concurrent programs from Department of Agriculture Forestry and Fisheries DAFF, or Regional Development Australia.

As a result of this water reform and the implementation of new Government policy, is there a program for assistance to these regional communities or are they just going to be left to adjust callously in the market place? This change affects farmers, local businesses, homeowners and in fact, anyone who has an asset in the Basin.

The Marsden Jacobs and Associates report states our community has "a low ability to cope with a reduction in water allocations." They also show our community has a very low propensity to change enterprises as we reside in a very low rainfall belt with little options for other cropping on the horticultural land.

However, we would like to suggest the following programs that would support our communities:

- Assisting farm build up in our regions.
- Assisting grower's transition into new crops more suited to a changed climate.
- Development of non agricultural based industries.
- Pre-retirement, Retirement and Immigration (Population Diversity).
- Additional New Food and Beverage Manufacturing.
- Tourism.
- Education.

Our region has developed the Riverland Regional Prospectus and we would like to see the Commonwealth Government invest in this prospectus and help our communities adapt to the changes that will be forced on us.

Further details can be obtained in a separate submission to the MDBA from the Regional Development Australia (Murraylands and Riverland).

More information

If you would like to discuss any of these issues further, please feel free to contact our spokesperson Mr Ben Haslett our chairman Gavin McMahon.

Gavin McMahon
Chairman