**Submission No 20**

# INQUIRY INTO STATUS OF WATER TRADING IN NEW SOUTH WALES

**Organisation:** Southern Riverina Irrigators

**Date Received:** 21 July 2022

# Southern Riverina Irrigators submission to the Select Committee on the status of water trading

## 1. Background of Southern Riverina Irrigators

Southern Riverina Irrigators (**SRI**) is a peak irrigation advocacy group representing five landholder associations in the Southern Riverina of NSW.

SRI members produce food staples including rice, wheat, corn, dairy, beef and various other horticultural enterprises, supporting regional economy, community and environment.

The Southern Riverina contributes around $7 billion annually to the Australian economy through agricultural production while directly supporting thousands of jobs, regional communities and the environment. When taking value adding into account, this figure increases to around $25 billion.

The success of the Southern Riverina is underpinned by our members access to reliable water allocations to NSW Murray General Security (**GS**) water entitlements which are delivered to our irrigators by Murray Irrigation Limited (**MIL**) – Australia's largest privately owned irrigation company.

## 2. Origins of water trading

The origins of water trading date back to the Council of Australian Governments' (**COAG**) held in Hobart in February 1994. In the Communique which followed the conference, the Council noted the report of Sir Eric Neal and his taskforce, which highlighted:

> while progress is being made on a number of fronts to reform the water industry and to minimise unsustainable natural resource use, there currently exists within the water industry:
>
> a. approaches to charging that often result in commercial and industrial users of water services, in particular, paying more than the costs of service provision;
> b. major asset refurbishment needs in rural areas for which, in general, adequate financial provision has not been made;
> c. impediments to irrigation water being transferred from low value broad-acre agriculture to higher value uses in horticulture, crop production and dairying; service delivery inefficiencies;
> d. and a lack of clear definition concerning the role and responsibilities of a number of institutions involved in the industry.

Following the 1994 COAG meeting water trading began to occur to some extent within irrigation corporations and in specific (but limited) circumstances. However, the biggest advancement (or origins) of water trading as we know it today in the Murray Darling Basin (**MDB**) stems from the Intergovernmental Agreement on a National Water Initiative 2004 (**NWI**).

The Commonwealth, NSW, Victoria, Queensland, South Australia, ACT and NT are parties to the NWI.

The NWI states, amongst other things, the States and Territories agree:

i. their water market and trading arrangements will minimise transaction costs on water trades, including through good information flows in the market and compatible entitlement, registry, regulatory and other arrangements across jurisdictions[1];
ii. to have in place pathways by 2004, leading to full implementation by 2006, of compatible, publicly-accessible and reliable water registers of all water access entitlements and trades (both permanent and temporary) on a whole of basin or catchment basis[2];
iii. to establish by 2007 compatible institutional and regulatory arrangements that facilitate intra and interstate trade, and manage differences in entitlement reliability, supply losses, supply source constraints, trading between systems, and cap requirements[3]; and
iv. take all steps necessary, including making any corresponding legislative and administrative changes, to enable exchange rates[4].

## 3. Publicly Accessible and reliable Water Registers

Despite the commitment to the creation of a publicly accessible and reliable Water Register almost two decades ago, NSW has made very little headway into progressing this.

Companies such as H2OX have demonstrated that it is possible to create such an open and transparent register, however, they are inhibited by the lack of cooperation from NSW to display this information.

**This Inquiry must recommend that NSW honour its commitment to the NWI and establish a clear and transparent register.**

The benefits of a public and transparent Register include:

a. the ability for market participants to have information and data that is potentially being misused by parties or individuals with access to it;
b. transparent flow of information; and
c. ability for public monitoring, accountability and understanding of water use.

[1] Clause 58(ii) of the NWI
[2] Clause 59 of the NWI
[3] Clause 60 of the NWI
[4] Clause 63(i) of the NWI

## 4. Highest value use misnomer

The purpose behind the initiative to create a fully functioning water market was to enable the water to go to the highest value use – which has been interpreted to mean water going to the highest value crop. Currently, the greatest economic returns (at scale) are generally from almonds and cotton.

This Inquiry must recommend that this concept of "value" is reformulated and considers, amongst other things:

1. subsequent value adding processes such as processing, refining, packaging and transport;
2. national food security (we cannot survive on nuts and cotton);
3. water consumption; and
4. creation of two speed economies and the devastation of this on local communities in regional areas – together with the inability to re-activate these industries and communities easily.

As detailed in Schedule 1, there is a higher "multiple" (ie. from 4 to 6) for economic benefits derived from dairy, livestock, fruits and grains produced in the Murray and Murrumbidgee valleys due to the need for processing, packaging, marketing and logistics.

With respect to cotton, the current "highest value uses":

i. For cotton the multiple is closer to 1 because 90% of it is exported and only a small amount is ginned locally; and
ii. For Almonds – these are very water intensive and will not sustain the population in a difficult period (such as a pandemic) in the way that staples such as grains, rice, meat and dairy will.

The realignment of value can in part be addressed by NSW if it alters the rules for water allocation to GS in the NSW Murray Valley when:

a. Flows into Menindee do not meet the modelled inflows used to create the Basin Plan 2012 which are set out in the *Murray-Darling Basin Authority Technical Report 2010/20;* and
b. Allocations to GS are less than 50%.

Furthermore, SRI seek that this Inquiry recommend that NSW no longer permit any water transfers/deliveries that the ACCC have advised are in breach of the Basin Plan Water Trading Rules.

### 4.1 Recommended changes

SRI implores this Inquiry to recommend that:

a. **in years when inflows to the Menindee Lakes do not reach the original modelled volumes for the Basin Plan and there are no salinity issues in the Murray River, the requirement[5] for Victoria and NSW to contribute 58,000ML in monthly dilution flows to South Australia is halted; and**

b. **conversion factors apply to transfers of water (unless the transfer is to the designated zone of the licence) in excess of channel capacity:**

    i. **zone 10 (above Choke) to zone 11 (Below Choke) is 1:2;**
    ii. **zone 11 (below Choke) to SA border is 1:2; and**
    iii. **zone 10 (above Choke) to the South Australian border is 1:3.**

c. **NSW is restricted from making transfers of water which the ACCC deems is in breach of the Basin Plan Water Trading Rules (ie. the Barmah Choke trade restriction); and**

d. **Removal of the Additional Dilution Flow (ADF) to South Australia from the Murray WSP**

### 4.2 Rationale for recommended changes

#### a. Salt dilution flows

Salt dilution flows were introduced when salinity in the MDB was an issue. Today, due to the large volumes of water recovered for the environment and transfers of water downstream, the Murray river system is unable to meet these deliveries without causing significant erosion to the banks and consequential negative environmental outcomes.

In years where the Darling River is unable to provide water to assist demand requirements downstream the burden should not be passed unnecessarily to the Murray River when no salt dilution is required and no environmental benefit is achieved.

Furthermore, by removing this requirement it creates space for other water (such as environmental and productive consumption) to move through the Murray River channel without overflowing.

#### b. Always water the top paddock first – efficient use of water – conversion factors

As noted above, the NWI envisioned the introduction of conversion factors (ie. exchange rates). The purpose of this was to represent the losses through conveyance in transferring water traded from one area to another.

It is estimated that it takes 3ML of water to convey one ML of water from the top of the system to the South Australian border. Currently, this water which is being transferred down the system (ie. from Hume and Dartmouth) is reducing the amount of water that can be allocated to GS by increasing the volumes of losses, conveyance and operational requirements.

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[5] At clause 88(b) of the Murray Darling Basin Agreement (Schedule 1 of the Water Act 2007)

The conversion factors for the Southern Connected System are found in Schedule 3 of the *Access Licence Dealing Principle Order 2004*. In short, the conversion factor is currently 1:1 and this does not reflect the drastic changes that have happened in the water market since 2004 – specifically the locations where water is now being traded to (ie. in 2004 there was less demand below the Barmah Choke then there is today).

Furthermore, on 1 July 2022 NSW introduced the *Access Licence Dealing Principles (Conversion Factors) Amendment Order 2022*. In this new Order, 27 new conversion factors were introduced for other valleys in NSW. These conversion factors range from 1: 0.5 to 1:5.

To date, no explanation has been provided by NSW as to why conversion factors should not be applied to these bulk transfers of water.

### c. ACCC advice to the MDBA about its lack of enforcement of Basin Plan Water Trading Rules

Clause 12.02(5) requires the ACCC to advise to the Murray Darling Basin Authority (**MDBA**) on the operation of subsections 12.02 (2) to (4) of the Basin Plan Water Trading Rules (**BPWTR**)[6]. The Basin Plan also requires the MDBA to "have regard" to this advice[7].

In this advice, the ACCC prepared this report in which it stated, amongst other things:

> The ACCC's view is that the differential treatment of HEW under water trading rules can lead to adverse impacts on the water trading system or on third parties; and
>
> The ACCC is of the view that certain movements of HEW carried out by EWHs may be 'trades' within the meaning of the BPWTR, and may be occurring in breach of the BPWTR. The investigation of possible contraventions of the BPWTR is a matter for the MDBA as the agency responsible for enforcing the BPWTR.

In particular the ACCC was referring to the bulk entitlement deliveries being conducted by NSW for the MDBA where transfers of large volumes of Above Choke water is being delivered below choke, specifically for Environmental Water Holders, however the ACCC stated:

> The ACCC is also concerned that the 12.02 provisions and certain other mechanisms used by the Basin States for the transfer of HEW raise broader concerns about the transparent operation of HEW movements, and the efficient operation of the water trading markets in the MDB.
>
> The ACCC is also concerned that there is insufficient transparency around some of the Basin States' HEW arrangements. In particular, reporting arrangements for the movement of HEW for 'return flows' and using BED mechanisms, are not transparent enough to allow all market

[6] As required by Clause 12.02(5) of the Basin Plan 2012
[7] Clause 12.02(6) of the Basin Plan 2012

participants to understand the circumstances in which the location where HEW can be used has or could be changed.

The lack of transparency around some of the Basin States HEW arrangements undermines the role and legitimacy of EWHs and HEW. This in turn creates, or adds to, a loss of confidence among market participants in the integrity and regulatory oversight of water trading and markets.

In other words, the ACCC concluded that the Environmental Water Holders (**EWH**) who hold water access licences should be treated the same as other water access licence holders (otherwise it destroys the integrity of the market).

Therefore, an EWH should not be allowed to transfer their zone 10 (above choke) water to zone 11 (below choke) which would breach the Barmah Choke trade restriction. In light of this Inquiry being focused on water trading in NSW, we urge it to recommend that NSW cease facilitating bulk entitlement delivery transfers that breach the BPTWR.

### d. Removal of the Additional Dilution Flow (ADF) to South Australia from the Murray WSP

The *Water Sharing Plan for the New South Wales Murray and Lower Darling Regulated Rivers Water Sources 2016* provides (at Appendix 3) that:

> *In 1987, as part of the MDBC Salinity and Drainage Strategy, it was agreed that South Australia would be entitled to additional water to mitigate the impacts of surface water salinity. This volume, known as additional dilution flow, is only provided when the storage volumes in the Menindee Lakes exceed nominated trigger points, at the same time the combined storage volume of Hume and Dartmouth Reservoirs also exceed nominated triggers. The trigger volumes within the Menindee Lakes vary between months.*
> *When these trigger volumes are exceeded, South Australia is entitled to an additional flow of 3,000 ML/day, 1,500 ML of which is from NSW resource.*
>
> *It is recognised that these additional dilution flows have contributed to the reduction in the impact of salinity. It is recommended, however, that these additional dilution flows be monthly totals rather than daily totals so that greater flexibility is available which can be translated into maximising both salinity and ecological outcomes.*

**Storage level triggers for additional dilution flow to South Australia**

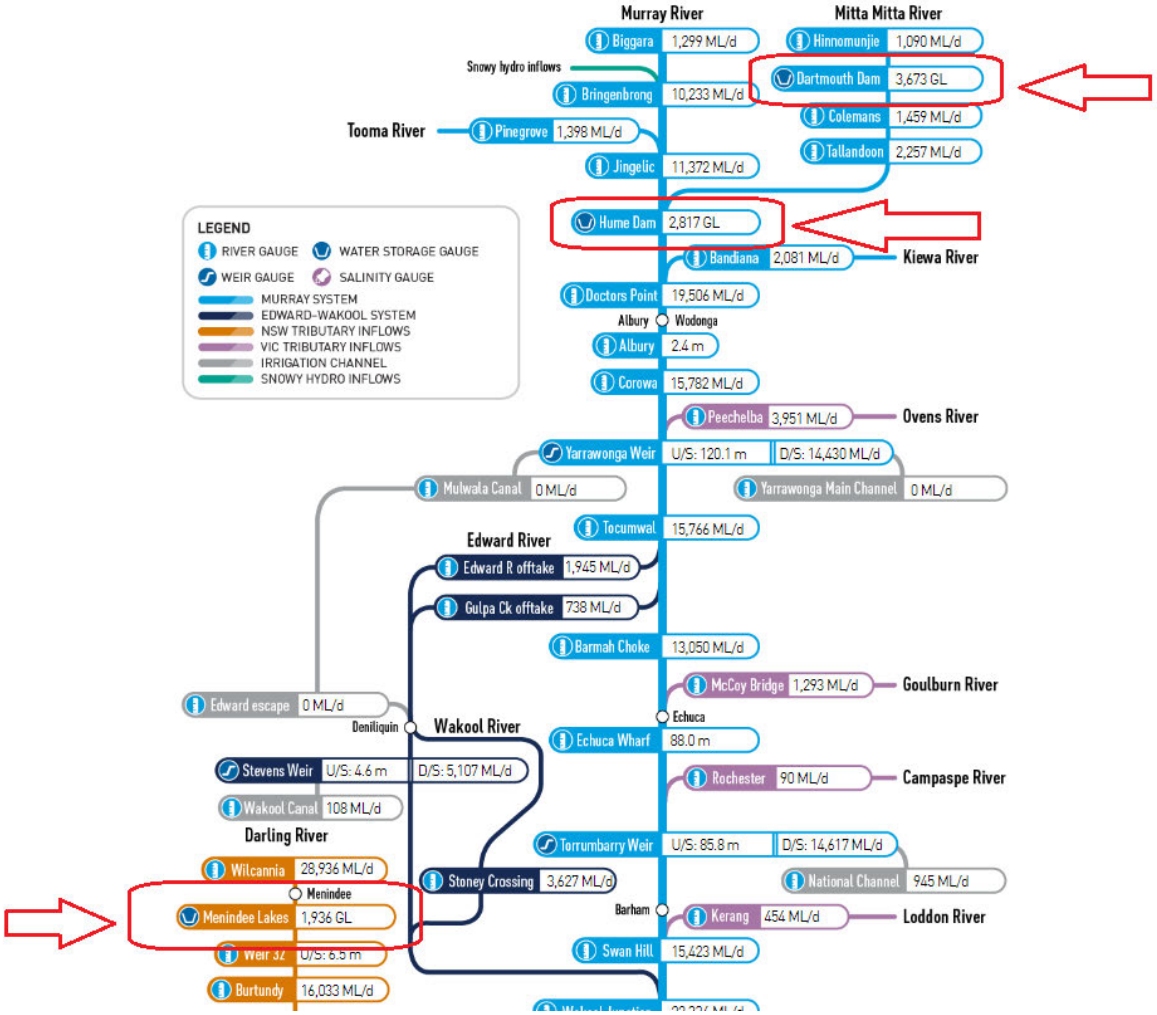
| Figures are ML | Jan | Feb | March | April | May | June |
|---|---|---|---|---|---|---|
| Menindee Lakes trigger | 1,300,000 | 1,300,000 | 1,300,000 | 1,300,000 | 1,300,000 | 1,650,000 |
| Hume/Dartmouth trigger | 2,000,000 | 2,000,000 | 2,000,000 | 2,000,000 | 2,000,000 | 2,000,000 |
| Figures are ML | July | Aug | Sept | Oct | Nov | Dec |
| Menindee Lakes trigger | 1,650,000 | 1,500,000 | 1,300,000 | 1,300,000 | 1,300,000 | 1,300,000 |
| Hume/Dartmouth trigger | 2,000,000 | 2,000,000 | 2,000,000 | 2,000,000 | 2,000,000 | 2,000,000 |

As noted above, salinity was a major issue between 1987 and 1994. This has been managed and the salt interception schemes in the Murray Valley are no longer required.

There are significantly greater environmental flows down the Murray River which assist this dilution. In the era when salinity was an issue, these environmental flows (and licences owned and operated by environmental water holders) did not exist. Today, they cause the ADF to be superfluous.

The ADF's trigger levels have been currently activated and mean that GS will lose 547,500ML from its consumptive pool (approximately 31% of allocation) to ADF in the upcoming water year. This is water that could have been used for production of staple foods and reserves such as hay and fodder for future dry years. Instead, this water is set aside and taking up storage space in the storages (417GL of airspace releases were made from Hume Dam in the 6 weeks leading up to 1 July 2022 – yet none of this is included in ADF calculations).

This requirement is placing increased pressure on the Barmah Choke (which is already at capacity) and is therefore environmentally
destructive.




Source: https://riverdata.mdba.gov.au/system-view (20 July 2022)

## 5. Management of shortfall delivery risks

If a member of SRI (or the public) decided to build a refrigerated warehouse in an area where there is an unstable energy supply, the Federal Government does not provide the support of additional power generators or extra power supply to the warehouse in times of a blackout. Instead, the market sends a signal that the location of the business may be cheaper because there is a real risk that there is unstable power which may lead to devastating losses.

Despite this, the particularly dry springs and summers in 2018 and 2019 inspired the MDBA to disregard normal river operation practices and push large volumes of water through the Barmah Millewa forest as "operational transfers" despite the significant losses being incurred and subsequent 0% allocation to GS.

In other words, in order to avoid a "delivery shortfall risk" the MDBA exceeded capacity of the Murray River to get water past the Barmah Choke to water users such as the large almond plantations (**Lower Murray Plantations**) amongst others – when it could have sent a signal that in order to have a stable water supply, they should move their operations above Choke. In addition to this, the actions of the MDBA were in breach of the Basin Plan water quality objectives (see part 6 below).

> The purchase (or ownership) of a ML of water gives the purchaser the right to receive the ML within the water year. There are no conditions on water access licences that the MDBA, NSW or an irrigation infrastructure operator (**IIO**) must deliver water at a specified time (date or place).

Within IIO's it is quite common that all the members demand water at the same time. For example, in the middle of a heat wave. It is also more efficient use of water to have higher flow rates which allow irrigators to push water on and off their properties quicker, thereby using less water. Just like with a shower or hose, higher pressure (through higher flow rates) is sought after.

IIO's manage this by restricting the amount of water that users can take in accordance with the number of their "delivery entitlements". Therefore, in order to get a higher flowshare in high demand periods, a member of the IIO (such as an SRI member) must commit to paying higher annual fees.

**SRI urges this Inquiry to make a recommendation the NSW never permit the breach of channel capacity in order to meet a "delivery shortfall" unless there is an allocation to GS greater than 50% and a conversion factor of 2:1 is applied.** If this does not occur, it undermines the integrity of the water markets by favouring one type of water user over another (ie. Lower Murray Plantations and Environmental Water Holders over SRI members).

It has also increased the erosion of water available to GS by "stealth". That is to say, the water hasn't been bought from SRI members (and compensation paid), it has simply been eroded and undermined so that other water users can get maximum benefit from their entitlement at the times when they like.

Finally, this concept of delivery entitlements for access to "flowshare" below choke is a live issue because section 58 of the *Water Management Act 2000* (NSW) specifies the priorities between access licences. In other words, a high security water access licence holder has priority over a general security access licence holder.

As far as we are aware, NSW (and/or the MDBA) has no policy on how to manage the conflicting extraction interests between GS and high security entitlement holders in sequences of low flows. This is relevant to this Inquiry because high security licences are at a significant premium to GS and were introduced to ensure that permanent plantings got priority over GS. A permanent planting should not be rewarded for purchasing GS water and expecting to access this water in preference to high security licence holders.

## 6. Trade in its current format is causing the MDBA to breach the Water Act 2007 and Basin Plan 2012

The purpose of the Basin Plan is (in part) to provide for the integrated management of the Basin water resources in a way that promotes the objects of the Water Act 2007 (Cth), in particular by providing for Basin-wide environmental objectives for water-dependent ecosystems of the Murray-Darling Basin and *water quality* and salinity objectives[8].

Sections 9.02 and Schedule 10 of the Basin Plan 2012 deal with water quality degradation.

Schedule 10 lists key causes of water degradation, such as:

a. sediment caused by the following water management practices[9]:

   i. rapid drawdown of water within a surface water resource;
   Example: Rapid drawdown of water in a dam.

   ii. the volume or manner of release of water, resulting in back or bed erosion.

It is widely accepted that there has been significant erosion of the Murray riverbanks and this has led to large numbers of mature gumtrees falling into the river and also a reduction of capacity at the Barmah Choke (downstream from Picnic Point) from an estimated 8,500ML per day in 2008[10] to 7,000ML in 2019[11].

The erosion of capacity at the Barmah Choke and the riverbanks along the Murray is due to the rapid drawdowns of the Hume Dam in key demand windows (ie. over summer). These dramatic changes have occurred (or accelerated) since water trading has become much more widespread.

Consequently a clear objective of the Basin Plan has been disregarded in the pursuit by the MBDA (in its role overseeing river operations of the Murray River) to deliver this traded water to different parts of the system when the river cannot support it.

**SRI urges this Inquiry to consider (and then make a recommendation) that the delivery of water that has been traded or transferred within NSW must take account of:**

**a. system capacity – including parameters around flowshare;**
**b. delivery constraints; and**
**c. the objectives of the Water Act 2007 (including improving water quality and enhancing environmental outcomes).**

[8] Section 20(c) Water Act 2007 (Cth)
[9] Schedule 10, 2(b) Basin Plan 2012 (Cth)
[10] See MDBC Factsheet 1 (Barmah Choke Study) dated 1 February 2008
[11] See MDBA "the Barmah Choke" Factsheet dated August 2019

## SCHEDULE 1 – SUPPORTING INFORMATION

Access to irrigation provides security and confidence to landholders to produce food staples, even in in poor rainfall years.

In an increasingly uncertain future, and a global pandemic, Australian grown staple food production has never been more important and it remains essential irrigated agriculture in the Riverina maintains access to water it is, and has been for decades, licensed and metered to receive.
For example the number of irrigators within SRI outnumber the number of irrigators in northern NSW two to one.

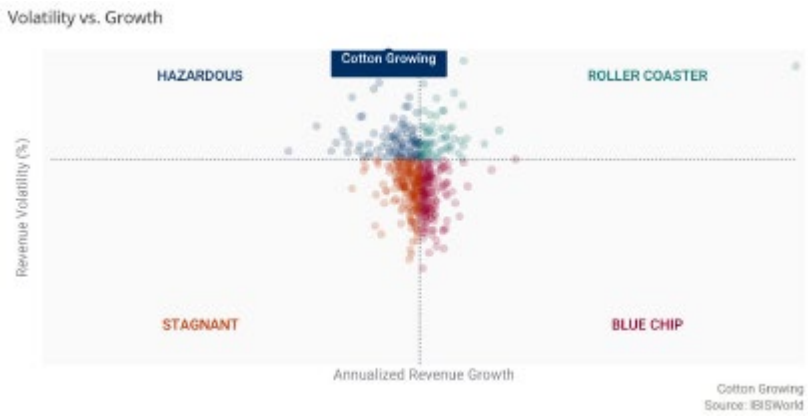
The number of irrigators within the Murray and Murrumbidgee valleys outnumber the number of irrigators in northern NSW by approximately 6 to 1.

It is in the Murray and Murrumbidgee valleys where the majority of the production of main food staples such as dairy, grains, horticulture meat and livestock. Because of the "value adding" that occurs in these regions through processing, packaging and transporting these staples to urban areas (and even for export) experts multiply the value of this production to the region when assessing the value of production. For example, the:

A. The Australia Institute uses a multiple of 4;
B. Ernst and Young have used a multiple of 5; and
C. Deloitte have used a multiple of 6.

In comparison, in northern NSW where water is predominately removed from the system in order to produce cotton, the multiple used by IbisWorld and others is significantly lower – closer to 1. This is because 90% of Australian cotton is exported[12] There is little ginning and other production occurring in Australia.

IbisWorld deemed the industry to be "hazardous" (see below).




Note: Revenue growth and decline reflective of 5-year annualized trend. Y-axis is in logarithmic scale. Y-axis crosses at long-run GDP. X-axis crosses at high volatility threshold.
Source: IbisWorld Cotton Growing in Australia A0152 June 2021

[12] https://www.agriculture.gov.au/agriculture-land/farm-food-drought/crops/cotton

This Inquiry should be concerned with the impacts of this industry on the regions and towns. When there are droughts and no water has been diverted into their large storages, these small number of landholders halt production (reducing employees) and wait until their dams fill again. This has caused stop start (or two-speed) economies in these northern NSW valleys which decimates local communities. People are leaving these communities and it does not justify the upkeep of schools, hospitals and other infrastructure. This would be unheard of when cattle stations and other producers benefited from the intermittent flooding of the floodplains.

The report: *Murray-Darling Basin Authority Technical Report 2010/20*, is a key part of the development of the Basin Plan and is referred to 28 times in it. In particular, it sets out the basis for the Baseline Diversion Limits to use in assessment of Sustainable Diversion Limits (and reductions).

**TABLE 20 WATER BALANCES FOR THE MURRAY SYSTEM FOR PREDEVELOPMENT AND BASELINE SCENARIOS**

| Model Run Nos | 566 | 705 | 706 | 707 | 580 | 708 | 709 | 710 |
|---|---|---|---|---|---|---|---|---|
| Scenario | Without Development | | | | Baseline | | | |
| **Water Balance** | Historical (GL/y) | 2030 Dry (%) | 2030 Median (%) | 2030 Wet (%) | Historical (GL/y) | 2030 Dry (%) | 2030 Median (%) | 2030 Wet (%) |
| **Storage** | | | | | | | | |
| Total change in storage | -13.0 | 9.5 | 3.0 | -8.7 | -73.6 | 9.2 | 2.8 | 0.0 |
| **Inflows** | | | | | | | | |
| Darling (inflow to Menindee Lakes) | 3272.5 | -21.2 | -8.0 | 21.7 | 1721.2 | -31.0 | -10.3 | 32.5 |
| Murrumbidgee (Balranald) | 2724.2 | -23.6 | -8.2 | 8.9 | 1271.4 | -42.0 | -15.8 | 16.6 |
| Murrumbidgee (Darlot) | 123.5 | -44.1 | -19.3 | 17.3 | 321.7 | -30.3 | -11.3 | 10.4 |
| SMHS releases | 616.9 | -19.3 | -5.4 | 5.8 | 1143.9 | -15.9 | -4.5 | 3.8 |
| Ovens at Peechelba | 1728.2 | -31.9 | -12.7 | 0.9 | 1708.0 | -32.9 | -12.9 | 1.1 |
| Goulburn at McCoy's Bridge | 3368.0 | -31.7 | -12.7 | -2.5 | 1660.0 | -46.1 | -19.8 | -4.8 |
| Campaspe at Rochester | 280.8 | -38.6 | -16.1 | -3.5 | 150.6 | -63.8 | -24.6 | -9.6 |
| Loddon at Appin South | 144.7 | -39.1 | -13.7 | -8.9 | 60.9 | -50.3 | -15.1 | -4.6 |
| Directly gauged Murray subcatchments | 4047.1 | -30.3 | -10.2 | 2.8 | 4035.9 | -30.4 | -10.2 | 2.8 |
| Indirectly gauged Murray subcatchments | 260.2 | -32.2 | -14.5 | 6.6 | 327.6 | -26.3 | -11.7 | 5.2 |
| Total inflows | 16566.0 | -27.8 | -10.3 | 6.3 | 12401.1 | -33.2 | -12.2 | 7.3 |
| **Diversions** | | | | | | | | |
| NSW Murray diversions | - | - | - | - | 1693.7 | -29.2 | -5.9 | 2.0 |
| NSW Lower Darling diversions | - | - | - | - | 54.7 | -13.8 | -5.6 | 3.7 |
| VIC Murray diversions | - | - | - | - | 1655.8 | -4.9 | 0.9 | 1.9 |
| SA Murray diversions | - | - | - | - | 665.0 | -13.6 | 0.0 | 2.3 |
| Total Diversions | - | - | - | - | 4069.1 | -16.4 | -2.1 | 2.0 |
| **Losses** | | | | | | | | |
| Total net evaporation | 442.4 | -8.7 | -1.6 | 10.6 | 599.5 | -9.8 | -2.0 | 10.8 |
| Net groundwater loss | - | - | - | - | 47.0 | 0.0 | 0.0 | 0.0 |
| Environmental loss | - | - | - | - | 57.6 | -41.5 | 0.8 | 4.4 |
| Total loss including SA | 3633.3 | -15.8 | -4.7 | 5.6 | 2595.9 | -16.1 | -5.4 | 5.6 |
| Total Losses | 4075.7 | -15.0 | -4.4 | 6.1 | 3300.1 | -15.2 | -4.6 | 6.4 |
| **Outflows** | | | | | | | | |
| Barrage outflow | 12503.4 | -31.9 | -12.2 | 6.4 | 5105.4 | -57.5 | -24.9 | 11.9 |
| **Unattributed Flux (GL)** | | | | | | | | |
| Total Unattributed Flux (GL) | 0.00 | - | - | - | 0.11 | - | - | - |



SRI has been very vocal in its concerns about the imminent legalising of floodplain harvesting in northern NSW valleys which has reduced the volumes of water flowing to Menindee Lakes (as envisioned by the Basin Plan 2012). The impact of this on water trading in other parts of the southern connected system is immense because due to the commitments of water to South Australia as per the Murray Darling Basin Agreement (and recent environmental initiatives), the difference between the average annual 1,721.2GL flowing down the Darling River into Menindee Lakes is being met with water from the NSW Murray Valley storages which is where SRI members derive their GS allocations (which have reduced from 84% annual average to 54%).

This impact is compounded by increased plantations of nuts below the Barmah Choke (the **Lower Murray Plantations**) who are also competing for water at key times of the year. This demand for water over particularly dry springs and summers in 2018 and 2019 inspired the MDBA to disregard

normal river operation practices and push large volumes of water through the Barmah Millewa forest as “operational transfers” despite:

A. significant losses being incurred; and
B. a water access licence is an entitlement to receive a volume of water within the water year.

In other words, in order to avoid a “delivery shortfall risk” the MDBA exceeded capacity of the Murray River to get water to the Lower Murray Plantations and other licence holders below the Barmah Choke. SRI urges this Inquiry to make a recommendation the NSW never permit this to occur ever again. It undermines the integrity of the water markets by favouring one type of water user over another (ie. Lower Murray Plantations over SRI members).