

15<sup>th</sup> December 2010



## **Parliament of Australia**

### **Senate**

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

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

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### **Overview of Riverina Citrus:**

Riverina Citrus is a Statutory Authority that takes its functions and powers from the NSW Agricultural Industries Services Act 1998. It collects a levy from 432 registered citrus growers in the Shires and Councils of Griffith, Leeton, Narrandera, Carrathool and Murrumbidgee in southern NSW. These growers hold approximately 550 farms and cover 8500 hectares of orchards.

Riverina citrus growers produce about 200,000 tonnes annually with a farm gate value of \$75 million and a retail value of \$500 million. The Riverina is Australia's largest citrus growing region and produces approximately two-thirds of the nation's orange juice. The registered growers are predominantly based in the Murrumbidgee Irrigation Area and are reliant on Murrumbidgee High Security entitlements. However the industry has expanded to the Hillston district which draws its water resource from groundwater and Lachlan River when available.

An important feature of this industry is the perennial nature of its crop. It is not uncommon for farms to have orchards greater than 40 years old. The Riverina region is one of the few areas in the country where the production area has stabilised. The soils and climate are agronomically and environmentally suited to citrus production. But most critically, the citrus industry has been able to rely on secure water supplies. Citrus orchards are vulnerable to moisture deficiencies in the peak of summer. Trees can be irretrievably damaged by short-term moisture stress necessitating tree pull and a delay of 8 years until a new tree is making a profitable return. The NSW 2004 Murrumbidgee Water Sharing Plan (WSP) has continued the state's strategy of ensuring High Security water allocation to the horticultural industries ensuring planning and investment certainty.

### **Response to Terms of Reference:**

#### **(a) Implications for agriculture, food production and the environment.**

Riverina Citrus anticipates approximately a 1:1 correlation in the reduction of water resource available to citrus growers and decline in production.

The two factors that can lead to reduced demand for water are improved productivity of the trees and on-farm irrigation efficiencies. As yet there have not been any meaningful productivity improvements in citrus in terms of water use. There are opportunities to continue on-farm infrastructure programs that the citrus industry has developed on its own initiative over the past decade. But as our feedback to the Murray Darling Basin Authority noted, there is some concern amongst our constituents that the gains from modernisation are not outweighed by future energy, carbon or amortisation liabilities.

Riverina Citrus can only comment on implications for the environment from the perspective of the Murrumbidgee Water Sharing Plan and Hillston groundwater users. Reductions in consumptive water and increases in environmental water will only come from retirement (voluntary buyback) of entitlements and efficiency gains ceded to the Australian Government. As at the 30<sup>th</sup> November 2010, the Commonwealth Environmental Water Holder had 88 GLs of Murrumbidgee entitlements registered of a total 824 GLs retained by the Australian Government across the Basin. To our knowledge no efficiency gains had been achieved by the Government in the Murrumbidgee, although Round 1 of the \$300 On-Farm Efficiency program is nearing the end of Due Diligence and some transfer to the CEWH may occur in the next few months.

These are relatively small volumes in the scale of the Murrumbidgee River. The NSW Government records 2,774 GLs of licences in the system and allocations range from under 500 GLs in 2007/2008 to nearly 2,000 GLs in 2005/2006. To put this in perspective the NSW Department of Water and Energy noted as recently as May 2009 –

“The Plan (Water Sharing Plan) establishes a long term average annual extraction limit estimated as 1,925,000 megalitres (ML) per year and identifies water above this limit (approximately 56% of flows) as planned environmental water. This limit is determined by hydrologic modelling – it is not the volume of water extracted from the water source in any particular year.”<sup>1</sup>

Given the history of low permanent trades out of the Murrumbidgee Valley (see Figure 3 Murrumbidgee Regulated River access licence dealings 2004 to 2008 NSW DWE)<sup>1</sup> and the slow roll out of the efficiency programs it is difficult to see any significant increase in environmental entitlements in the Murrumbidgee in the near future. The environment will continue to rely on programs such as NSW Riverbank, Water for Rivers and the highly effective state WSP that reliably provided flows to the end of the system (Balranald Weir) through the record low in-flow years over the past decade. The NSW Government set an environmental target of 200 to 300 ML per day to the weir and this been achieved except for June 2008. These flows were able to be maintained because the WSP is based on a hierarchical system that provides for the environment, town supplies, stock and domestic, conveyance, High Security and finally General Security allocations.

In our feedback to the Murray Darling Basin Authority's Guide to the draft Plan, we noted that the NSW Government had reduced groundwater

entitlements (equals groundwater allocations) in the Hillston region by an average of 48% two years ago. This policy was prosecuted on the basis of 'current science' and the new levels would be sustainable. The MDBA Guide is now recommending a potential further reduction of 40% to 74%. Our position is groundwater is quite slow to recharge and stabilise. Riverina Citrus requests a moratorium on further cuts until the 2008 reductions have been monitored and assessed (the WSP expires in 2117/2118).

Riverina Citrus therefore makes the observation that the NSW Government has only recently confirmed through hydrological modelling its belief that the Murrumbidgee regulated river and Lower Lachlan groundwater systems are close to its sustainable settings.

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

At an industry level in the Riverina, the drivers for change and impact on social and economic factors are primarily terms of trade. If the current policy of only buying entitlements from willing sellers continues, new SDLs are not expected to have a significant influence on industry trends. The citrus industry has been experiencing consolidation for many years. A decade ago, 600 growers farmed 9000 hectares and today 432 growers manage 8500 hectares. There may be third party impacts from the loss of entitlements within a system, but this is not quantified; not influenced by competitive pressures to find cost efficiencies and ameliorated by system infrastructure building programs funded by the Australian Government.

An important exception to this will be the Hillston orchardists who are being asked to give up another 40% to 74% of their resource only two years after losing an average 48% under the Lower Lachlan Groundwater Source Water Sharing Plan. This will leave less than 20% of the original consumptive water and would reasonably be expected to lead to the closure of the industry in that region. Hillston agriculture would revert to dryland broadacre enterprises and the Committee should refer to the Judith Stubbs report 2. In Table 3.19, the report calculates there are 16 direct jobs attributable for every gigalitre used in fruit production. Therefore a loss of 40 GLs will lead to the loss of around 640 direct jobs and another 560 indirect positions. The population Of Carrathool Shire is 3330, and therefore the impact will be critical.

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

As pointed out above, it is not the view of Riverina Citrus that the citrus industry in the Murrumbidgee Irrigation Area (MIA) would become unsustainable or unviable if the current policy settings are continued and the SDL is at the lower end of the range proposed by the MDBA. The basis for that belief is the CWEH has purchased approximately 900 GLs and the Authority estimates the Efficiency programs are expected to yield 2000 GLs. Therefore a target of 3000 GLs is within reach. In fact there is a danger of future water tenders may overshoot the goal of 3000 to 4000 GLs.

The qualification to that statement is the Hillston citrus industry, which would not have adequate water resource to maintain production if 40 GLs is withdrawn from consumptive use.

Riverina Citrus is not qualified to comment on viability across the Basin.

**(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.**

Riverina Citrus can only comment from the perspective of the citrus industry. The citrus industry has seen a number of attempts at expansion beyond the irrigation strongholds in the southern Murray Darling Basin. There has been growth in some regions such as central Queensland and the Gwydir Valley. The Riverina continues to be the hub of citrus production (approximately 1/3 of the national crop) because of comparative advantages including water security; suitable soils and climatic conditions; low pest and disease pressure and proximity to markets. Other regions share some of these assets, but not all of them as enjoyed in the Riverina.

**(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.**

Citrus growers have undertaken extensive modernisation programs on farm over the past decade. Approximately 66% of our irrigators have converted from furrow to pressurised systems. There has been a reduction in this conversion rate as irrigators reassess the energy cost implications. On a pressurised system, electricity is one of the most expensive inputs on the farm.

No citrus grower was successful in the first round of the \$300 million on-farm efficiency program.

As we noted in our feedback to the MDBA, Riverina Citrus is supportive of government efficiency programs (on-farm and water corporations) if they do not risk becoming a liability in the future for irrigators and the community.

Riverina Citrus is not qualified to contribute to policy on the impacts of mining, except to repeat our contribution to two submissions to the MDBA. That is, all 'take' (mining, forest etc) should be licensed and require an allocation.

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

Riverina Citrus prepared a submission (3) to the Productivity Commission's recent enquiry into Research and Development funding for agriculture. We made the point that there is a public good of using the community's water resource in the most efficient means possible to minimise the impact on the environment. Efficiency will be maximised by research and development into productive, water saving agriculture. Some of this R&D may not have an

immediate commercial justification and is therefore reliant on R&D corporations that are at least part publically funded.

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

**1 corporate and sovereign takeover of agriculture land and water,**

**2 water speculators**

The citrus industry in the Riverina consists of approximately 25% corporate ownership. These enterprises are valued in our industry and have been responsible for growth and technology adoption. Riverina Citrus has no objection to corporate ownership.

To our knowledge there is one large, foreign owned citrus farm in NSW. It would be characterised as a strong contributor to the industry and our organisation foresees no threat from this trend. The two major juice processors in Australia (National Foods owned by Kirin Corporation and Golden Circle owned by Heinz) are foreign owned. To our knowledge this has not presented any problem within the industry. There are a number of smaller, locally owned processors and they help to maintain competitive pressure. Riverina Citrus has actively encouraged foreign interest in our industry at a farm and processing level.

There has been comprehensive commentary on the soundness of the water markets and one of the observations has been the need for more participants to improve its efficacy. Speculators are a feature of most markets and there doesn't appear to be a sound reason (or realistic possibility) to exclude them.

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

Riverina Citrus is comfortable with the current Australian Government policy mix of Buybacks and Infrastructure efficiency programs. As noted above, if the MDBA is correct in estimating the dividends from efficiency upgrades at 2000 GLs and buybacks have reached 900 GLs, the SDL target of 3000 GLs is within range.

While recognising buyback is not a direct mechanism for reaching SDL targets based on efficiency, there is a view in the citrus industry that the less efficient growers are more likely to take advantage of Buyback and this will ultimately improve the overall efficiency of the industry.

It is worth reinforcing that production efficiency will be achieved if markets are allowed to prevail. It is for this reason that the Australian and state governments must ensure there are minimal barriers to water markets. Water reform, economic efficiency and community resilience will be optimal if the resource is allowed to move to its most productive and profitable use.

Irrigators, the community and taxpayers will benefit from efficient water markets characterised by transparency, timely contracts, minimal transaction costs and depth to the markets.

**(i) Options for all water savings including the use of alternative basins.**

Citrus production in the southern Murray Darling Basin has been productive and environmentally sustainable because of the hydrological, climatic and agronomic suitability of the region. The hot, dry weather precludes disease and pest pressure. Riverina Citrus is not aware of any other basin with these features. The northern Australian basins lie in the tropical or sub-tropical zones. As with any mono culture in these regions, there is significant pest and disease impact requiring multiple treatments that do not lend themselves to integrated pest management. Chemical resistance quickly becomes a problem in these circumstances.

**Scot MacDonald**  
**Executive Officer**  
**Riverina Citrus**

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## References

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2. Stubbs J Storer J Lux C Storer T 2010 Exploring the Relationship Between Community Resilience & Irrigated Agriculture in the MDB: Social and Economic Impacts of Reduced Irrigation Water , Cotton Catchment Communities, Narrabri
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