



Submission to the House of Representatives Standing Committee on Regional Australia

Inquiry into certain matters relating to the proposed Murray- Darling Basin Plan

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Cotton Australia

Cotton Australia is the key representative body for the Australian cotton growing industry. It helps the industry to work together to be world competitive and sustainable, and also tell the good news about the industry's achievements. Cotton Australia determines and drives the industry's strategic direction, retaining its strong focus on R&D, promoting the value of the industry, reporting on its environmental credibility, and implementing policy objectives in consultation with its stakeholders.

Cotton Australia works to ensure an environment conducive to efficient and sustainable cotton production. It has a key role in Best Management Practices (*MyBMP*), an environmental management program for growers. This work has seen a significant improvement in the environmental performance of the industry, with huge improvements in water use efficiency, significant reductions in pesticide use, and millions of dollars invested into R&D.

The Australian cotton industry directly employs thousands of Australians and this year will contribute over \$2 billion to the Australia economy.

Cotton Australia welcomes the opportunity to provide this submission **to the House of Representatives Standing Committee on Regional Australia *Inquiry into certain matters relating to the proposed Murray-Darling Basin Plan.***

Cotton Australia would be delighted to assist the inquiry by appearing as a witness to provide further information on the matters contained in this submission, should the inquiry wish.

Cotton Australia is an active member of the National Irrigators Council, National Farmers Federation, Queensland Farmers Federation, and NSW Irrigators Council, and in general supports the views and submissions lodged by these organisations.

However, to avoid any doubt, if there is any divergence of the views expressed by these organisations and those of Cotton Australia, then it is the positions in this submission that are those of Cotton Australia.

For further information or discussion on the content of this submission please contact Cotton Australia's National Water Manager Michael Murray



Inquiry Terms of Reference

The Minister for Sustainability, Environment, Water, Population and Communities, the Hon Tony Bourke MP has asked the Committee to inquire into:

1. Progress to date in water recovery towards bridging the gap by 2019 through both irrigation infrastructure investments and water purchase.
2. The potential role that new environmental works and measures projects could play in partially offsetting SDL reductions under the Basin Plan, focussing particularly on prospective project proposals identified by state governments and community interests.
3. The groundwater sustainable diversion limits (SDLs) for Basin in the revised proposed Basin Plan.



General Comments:

Cotton Australia remains very concerned that despite almost five years of activity, the current proposed Basin Plan still fails to clearly identify the environmental outcomes that the Plan is meant to achieve.

There still appears to be the simplistic notion that “if we just add water, the environment will look after itself”.

However, we know from the Sustainable Rivers Audit, that most of the perceived environmental problems in our river system are not directly related to changes in “hydrology”, so it is certain that this simplistic approach will not work.

There is no better example than the current explosion of carp numbers across the Murray-Darling Basin system. The massive increased water flows that have result from two years of floods, has escalated rather than alleviated this very real environmental curse.

Clearly, if in a particular valley, an environmental objective is to control carp, and create an environment conducive to native fish, a “just add water approach will not work”. Instead, there needs to be a coordinated approach which may include carp trapping, re-snagging, released water temperature control, and native fish re-stocking.

The above represents just one example, but to be able to provide very relevant alternative solutions to this Inquiry and the Governments of the Murray-Darling Basin, it is essential that there be some clear agreement on the problems, at a valley level, that we are seeking to fix.

It is clear that this level of problem and solution identification will not occur within the next six months, and therefore the proposed basin plan must have a very clear mechanism that will allow for “localism” to identify environmental targets, develop the most appropriate solutions, and have the appropriate adjustments made to the SDLs.

Cotton Australia refers to this committee the Murray-Darling Basin Authority’s Recommendations 1, 2, 5, 7 & 9, and suggests that when these are combined they represent a path forward which should see environmental objectives identified and achieved in the most economic and socially responsible manner:

- 1. River operations should become more efficient.** The Basin states should complete as a priority a review of river operations to identify opportunities for water savings and improved environmental outcomes by 2015.
- 2. Investments in infrastructure deliver environmental returns over the long term.** The Australian Government and Basin states should place an investment priority on



infrastructure and environmental works that will lead to long-term efficiency gains and mitigate the social and economic impacts of water recovery.

- 5. Local communities must be engaged.** The Australian Government and Basin states should actively involve local communities in the decision-making processes that affect water and salinity management in their region. In particular, the management of environmental water could be devolved to local communities and groups.
- 7. Investment in environmental works and measures will boost environmental outcomes for the Basin.** There are many opportunities to improve environmental outcomes through works and measures, but the MDBA singles out investment in works to increase the fresher flows into the southern lagoon of the Coorong, as well as improving the management of the Menindee Lakes System, as urgent priorities.
- 9. Environmental watering must be integrated into broader natural resource management.** The Australian Government, Basin states, catchment management authorities and local governments need to continue working together to ensure that planning and management of environmental water is more closely integrated with broader natural resource management activities. The MDBA strongly encourages governments to continue supporting local and regional bodies in this task so that the benefits of reforming water use are not undermined by environmental degradation stemming from a lack of investment in natural resource management.

While Cotton Australia is supportive of the right for Government to purchase water entitlement, it is also very strongly in favour of infrastructure efficiency projects and environmental works and measures, which have the capacity to more effectively deliver environmental outcomes, while minimising the social and economic impact.

Recommendation

That the Inquiry support integrated solutions that maximise defined and measurable environmental outcomes while minimising the medium and long-term social and economic costs.



1. Progress to date in water recovery towards bridging the gap by 2019 through both irrigation infrastructure investments and water purchase

Cotton Australia remains disappointed with the mismatch between the progress of “buyback” when compared with the progress of infrastructure projects.

In Northern NSW and Southern Queensland water recovery projects have almost exclusively been focused on-farm, which is understandable given the pre-dominance of the irrigation infrastructure in these regions.

A notable exception to this has been the four private channel scheme projects in the Macquarie Valley which are at various stages and have been funded under the NSW Private Irrigation Infrastructure Operators Program. While Cotton Australia is not intimately involved in these projects, and some are still only in the final stages of approval, it appears that these projects are excellent examples of meeting multiple goals of acquiring water for environmental purposes, and upgrading infrastructure in a cost effective and socially supportive manner.

However, of alarm is the fact that water purchase in the Northern Basin, far exceeds acquisitions through programs such as the QLD Healthy Headwaters and the NSW Sustaining the Basin.

It has been difficult for Cotton Australia to definitively determine the amount of water acquired in the Northern Basin from infrastructure projects and the amount acquired through “buyback”.

However, it appears that by May 31, 2012 the Commonwealth had purchased some 120GL of water, while water acquired through infrastructure projects represented only a small fraction of this amount.

It should be of interest to this Inquiry for the Committee to request the Department of Sustainability, Environment, Water, Population and Communities to provide a definitive breakdown.

Recommendation:

That this Inquiry requests the Department of Sustainability, Environment, Water, Population and Communities to provide a full breakdown of Commonwealth environmental water holdings acquired through purchase, and those acquired infrastructure projects.

While Cotton Australia welcomes the recent reconfirmation of the NSW State Priority projects and associated funding, it has been a great frustration that this funding was first announced in 2008, and is now only becoming available.



Cotton Australia strongly believes that at all times irrigation entitlement holders should have a genuine option of either participating in “buyback” or in an irrigation infrastructure programme.

2. The potential role that new environmental works and measures projects could play in partially offsetting SDL reductions under the Basin Plan, focussing particularly on prospective project proposals identified by state governments and community interests.

There sometimes appears to be confusion about the difference between an infrastructure project and an environmental works or measure.

In Cotton Australia’s view, within the context of the Murray-Darling Basin Plan, an infrastructure project is one that generates water savings, which can be represented by an entitlement, and that entitlement can be counted towards the required reduction in the Sustainable Diversion Limit (SDL).

An Environmental Works or Measure is an action that leads to a more efficient achievement of an environmental objective, and should result in an appropriate adjustment of the SDL.

An Environmental Works or Measure could be an engineering activity, or a management activity, or a combination of both. It could relate directly to water management, or could, and should in many cases, involve a more integrated approach to management.

The specific Environmental Works or Measures should be determined by specific environmental outcomes.

The following are examples that could be applied in the various major northern catchments, but their actual appropriateness will largely depend on the desired environmental outcome.

Lower Balonne

Off-Stream Storages

Commonwealth control, either through direct ownership of off-stream storages, or through contracted arrangements with existing entitlement holders, which will allow the storage and release of water from points relatively close to the Narran Lakes.

This was successfully trialed in 2008, and overcame the problems associated with the lack of public headwater storage in the region, and is really the only effective way to ensure environmental water is available to sustain a bird breeding event. Detailed information on the 2008 event has been attached to this submission.



Weir Modification

Currently there is only limited capacity to direct flows at the confluence of the Narran and Culgoa Rivers. Modification to weir structures would allow much greater control of flows, and would allow them to be directed to areas of greatest environmental needs.

Border Rivers

Mingoola Dam

Construction of an impoundment and associated delivery infrastructure on the Dumaresq River, near Mingoola, which would harness the waters of the Mole River, the Tenterfield Creek and to a lesser extent, Pikes Creek.

- Increase the storage capacity of the catchment, potentially moving the storage task from the on-farm storages on the plains to the headwaters where storage is more efficient with fewer losses.
- Flood mitigation
- Increased efficiency of water owned by Commonwealth Environmental Water Holder. This could be stored for environmental use in the Border Rivers and further down the Barwon Darling system. Storage is more efficient and greater degree of regulation of the stream would provide for more efficient delivery of water (including CEWH) downstream.
- Increased storage capacity would give the CEWH increased scope to deliver water for the environment later in a dry sequence, effectively drought-proofing environmental assets in the Border Rivers and upper Barwon Darling systems.

Use of Private Storages

With the sale of productive water to the Commonwealth for exclusively environmental use, this has created a surplus of storage capacity in the downstream reaches of the river. We propose that this storage capacity could be utilised for the storage of CEW water that could be the subject of an agreement struck between the CEWH and the owner of the structure. With the provision of discharge infrastructure, this would increase the capacity of storage and ability to capture unregulated flows for the CEWH, thereby increasing their capacity to service environmental requirements.

Discharge Structures: These structures could take the form of large capacity over-bank syphons or in some installations, the modification of existing pipework and valves to allow for the discharge of water back into the stream. Overbank syphons could be used in multiples on the one structure to enable higher volume release capacity and could be easily moved if required.



Options for all Northern Valleys

Temporary Weir Structures to Enhance Overland Flows

Installation of temporary re-regulating structures at strategic points along the Darling system. These sites may include the existing structures that may require more height in order to direct flows into overland areas for environmental deliveries, or additional structures.

Computer Aided River Management

To implement the Computer Aided River Management system across northern basin streams to achieve greater efficiencies in normal river operation (Water for Rivers Proposal).

Multilevel Off-Takes on Dams

Installation of multilevel off-takes or other devices to minimise cold water pollution from water releases, enhancing opportunities for successful native fish breeding.

Gwydir Valley

Flow Control Structures

Installation of various structures within the Gwydir Wetlands area so as to better control environmental flows, and minimize off-target inundation.

Purchase of Environmental Sites

Currently only a very small percentage of the Gwydir Wetlands is managed for environmental outcomes, while many landholders economically benefit from environmental flows enhancing soil moisture for crop and pasture production. Far greater value would be gained from environmental water releases if the land was also managed to maximize environmental outcomes. This could be achieved through land purchase or management agreements with landholders. Total cost would be much lower than by trying to achieve environmental outcomes solely through water acquisition and release.

Macquarie Valley

Purchase of Environmental Sites

As with the Gwydir Valley, much could be achieved by owning land, or entering into arrangements with private landholders to manage properties for environmental outcomes.

This approach as been proven by Macquarie Marshes Environmental Trust and the purchase of the property “Burrima”. Full details of this project can be found at <http://www.macquariemarshes.org.au/> . The following photos provide a snapshot of the transformation.



Phragmites reed bed 2005



Phragmites reed bed 2008



Coolibah woodland, 2005



Coolibah woodland, 2008

Menindee Lakes

For the Northern Basin, unless something is done to improve the efficiencies of the Menindee Lakes system, any improvements with other works and measures, and indeed water acquisition will be wasted.



Cotton Australia is of the view that Menindee can be improved significantly, but some of the more optimistic potential savings in the order of 200Gl are overly optimistic.

Further, Cotton Australia is of the very strong opinion that efficiency savings generated by improvements to the Menindee Lakes must be apportioned to the SDL reduction requirements of the Northern Basin. For too long elements in government have been advocating that these savings must be credited to the south.

The various measure required under the proposed Basin Plan will see approximately an extra 200Gl flow into Menindee Lakes, and the communities of the Northern Basin will simply not stand to see these frittered away through the inefficient management of these lakes.

At the same time, Cotton Australia recognises the Lakes' legitimate role as a water storage, and an integral part of the Murray-Darling Basin water resource.

3. The groundwater sustainable diversion limits (SDLs) for Basin in the revised proposed Basin Plan.

Given the nature of the location and the quality of the aquifers impacted by these latest changes, it is highly unlikely that they will impact on the Australia Cotton Industry.

However, as Cotton Australia understood it, the SDL determined in the original proposed Basin Plan (as opposed to the "Guide") were based on very conservative estimates of sustainable yield, and should always have been viewed as a maximum use limit, and not a target for use.

Given this, and if the modeling can sustain scientific validation, Cotton Australia would suggest that there was no justification for the latest reductions in the SDL.

However, if there is some uncertainty around the accuracy of the modeling, then Cotton Australia would be supportive of making less water available now, but with a mechanism to increase the SDLs to those levels in the original proposed Basin Plan, if and when the accuracy of the modeling is proven.

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Cotton Australia
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