

**Submission
No 100**

INQUIRY INTO ADEQUACY OF WATER STORAGES IN NSW

Organisation: Cotton Australia

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Submission to the NSW Standing Committee on State Development Inquiry into

The adequacy of water storages in NSW

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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 is a member of the National Farmers Federation, National Irrigators Council, and NSW Irrigators Council.

Cotton Australia welcomes the opportunity to provide a submission to the NSW Standing Committee on State Development *Inquiry into the Adequacy of Water Storages in NSW*, and would be delighted to appear before the Inquiry if that would assist the committee's deliberations.

For further information or discussion on the content of this submission please contact Cotton Australia's National Water Policy Manager Michael Murray on 0427 707 868 or michaelm@cotton.org.au .



Inquiry into the adequacy of water storages in NSW

TERMS OF REFERENCE

That the Standing Committee on State Development inquire into and report on the adequacy of water storages in NSW, and in particular:

- a) the capacity of existing water storages to meet agricultural, urban, industrial and environmental needs,
- b) models for determining water requirements for the agricultural, urban, industrial and environmental sectors,
- c) storage management practices to optimise water supply to the agricultural, urban, industrial and environmental sectors,
- d) proposals for the construction and/or augmentation of water storages in NSW with regard to storage efficiency, engineering feasibility, safety, community support and cost benefit,
- e) water storages and management practices in other Australian and international jurisdictions,
- f) any other matter relating to the adequacy of water storages in NSW.



General Comments

This year the NSW cotton industry will produce approximately 2.8 million ginned bales of cotton, with approximately 2.4 million bales being produced from irrigated production ranging from Berriquin in the south, to Mungindi in the north.

By way of comparison, in the middle of the recent drought, production in 2007/08 fell to just 400,000 bales.

The NSW cotton industry, with its dependence on general security water entitlements, has developed in a manner that allows it to manage the significant impacts that variable water availability imposes on it.

However, this industry, which this year will contribute close to \$1.5 billion to the NSW economy, would be even stronger with a more reliable irrigation supply, which would mitigate against large production slumps caused primarily by periods of low water availability.

Therefore Cotton Australia has a strong interest in ensuring greater and more reliable access to irrigation water for its growers.

However, unless it once again becomes the policy of the NSW Government to significantly subsidise the cost of water storage and distribution systems' capital and operational costs, then Cotton Australia could only support proposals that could clearly demonstrate that they were cost effective in both the short and long term.

That is not to say that the industry expects government to shoulder 100% of the costs. Growers largely accept their obligation to meet their share of system costs, and if new storages resulted in the issuing of new entitlement, that has not resulted in third party impacts to existing irrigators, then there would be some capacity to recover capital costs by selling entitlements.

This raises the very important point, that given the current water development levels in NSW, and the regulatory structures including water sharing plans and the draft Murray-Darling Basin Plan, any proposal to capture, store and licence water, cannot be at the expense of existing licence holders.

Further, Cotton Australia recognises that there is a legitimate need to balance the needs of productive water users and the environment, and prior to lending its support to any proposal it would need to be convinced that the proposed development is environmentally sustainable.



Finally, the current water planning framework, which includes the NSW Water Sharing Plans and the expected Murray-Darling Plan, has effectively allocated all water in NSW to either extractive users or the environment.

Therefore, any proposal to further increase water storages in NSW, with the aim of increasing extractive use, would require a deliberate amendment of these planning documents, so as to allow the re-allocation of water from the environment to extractive use.

Given the above, while Cotton Australia would welcome additional water resources being made available to its growers, it will actively consider all proposals on their merits.

In summary, for Cotton Australia to support a proposal it must be:

- Cost effective (or part of genuine State development policy, with no expectation of full cost recovery by water users)
- Be environmentally sustainable
- Have no uncompensated impacts on existing water entitlement holders
- Be within the framework of current or amended water sharing plans

Specific Responses to the Terms of Reference

a) the capacity of existing water storages to meet agricultural, urban, industrial and environmental needs,

NSW faces a choice of either increasing its total water storage, and in doing so increase the amount of water available for extractive use, or see a steady decline in water available for irrigated agriculture, as it shifts to meet urban, industrial and environmental needs.

The creation of the NSW Water Sharing Plans in the mid-2000 effectively reduced agricultural irrigation water availability by approximately eight per cent across the State.

The introduction of the NSW Environmental Water program Riverbank and the much larger Murray-Darling Basin Plan will further reduce access to irrigation by some 20 to 30 per cent.

Our increasing urbanisation is also putting much greater strain on our water resources, and one easy way of meeting that urban demand is to acquire the water from the irrigated agriculture sector.



If NSW wishes to maintain (and hopefully grow) its irrigated agriculture sector, it must increase its storage capacity, and in doing so restore the amount of water available for irrigated agriculture.

It cannot be stressed strongly enough, that if NSW wishes to maintain and build its irrigated agriculture, building the dams will be the easy part. The hard part will be reversing some thirty years of government policy which has seen a consistent and very significant re-adjustment of the water resource from extractive use to the environment.

At a minimum, the government must commit to meeting the urban water needs of NSW from either efficiencies or new storage, and not take the easy option of simply purchasing entitlement of irrigators.

While the construction of new dams will be particularly problematic within the Murray-Darling Basin should the Basin Plan be adopted, NSW will have more control to develop new dams on the coast to meet urban demand.

There would appear to be justification for NSW to reconsider dams on the Shoalhaven River or the Tilliga Dam to meet urban and industrial demands.

There may be some capacity to build new dams within the Murray-Darling Basin if they are designed to improve the efficiency of current water use rather than allow for increased extraction.

For example Cotton Australia is aware of an early stage proposal for a dam on Dumaresq River, near Mingoola, that could potentially capture and store water that is currently pumped and stored in farm dams as supplementary water in the lower part of the MacIntyre Valley.

The advantage would be that the water would be stored in a much deeper, cooler storage, with the potential to significantly reduce the evaporation that currently occurs on-farm.

While this proposal, and other similar ones in the North-West deserve consideration, it must be noted that on-farm storages largely came about in the 1970's & 1980's because government did not wish to invest in more headwater storages, and this led to a significant shift of investment from the public sector to the private sector.

The cost of the proposal would have to consider the "opportunity" cost of the redundant on-farm storage, and carefully determine the real evaporation savings, as it is highly likely the on-farm storages would still be used to store some water, and as evaporation occurs off the top, evaporation savings would only occur when the dams were empty.



In a similar view, there may be opportunities to make efficiency savings with environmental water, with the construction of dedicated environmental water dams.

A possible example would be the construction of a dam on either the Horton River or Gwydir River near Gravesend. This would allow environmental water to be captured and then released at times to maximise environmental outcomes.

b) models for determining water requirements for the agricultural, urban, industrial and environmental sectors,

Cotton Australia is reasonable comfortable with the Integrated Quality and Quality Model (IQQM) that is used by the NSW Office of Water (NOW) as the primary model for determining and managing Water Sharing Plans.

However, it was not designed as a model to forecast future requirements and water demand growth across sectors, and specialist models would be required. Cotton Australia does not have knowledge as to what models are used by the NSW government for these purposes, and therefore cannot comment on their adequacy.

c) storage management practices to optimise water supply to the agricultural, urban, industrial and environmental sectors,

In general Cotton Australia is supportive of existing storage management practices. Cotton Australia is very strongly supportive of the “Continuous Accounting” and monthly resource assessment practices that are followed by a number of the northern inland valleys.

Continuous Accounting places much more control in the hands of the individual water entitlement holders, and allows them to manage to their own risk profile.

Greater efficiency may be achieved through the introduction of trade in storage rights in the inland northern valleys, over and above existing trade in entitlements and allocations.

At present, in the northern inland valleys, to store water in a headwater storage an irrigator must hold entitlement in that storage.

An irrigator can only purchase water by assignment if the irrigator holds entitlement and has airspace in the appropriate headwater storage.



However, if an irrigator could sell either permanently or temporarily, dam storage capacity, another irrigator who does not hold entitlement (and therefore storage capacity) could purchase storage capacity and use it to hold water purchased by way of assignment.

d) proposals for the construction and/or augmentation of water storages in NSW with regard to storage efficiency, engineering feasibility, safety, community support and cost benefit,

Over the years there have been many proposals for additional storage in NSW, and rather than re-list them, Cotton Australia urges the NSW Government to re-consider them in light of the following test (also outlined above):

Are they

- Cost effective (or part of genuine State development policy, with no expectation of full cost recovery by water users)?
- Environmentally sustainable?
- Free of any uncompensated impacts on existing water entitlement holders?
- Within the framework of current or amended water sharing plans?

e) water storages and management practices in other Australian and international jurisdictions,

It is interesting to note that while NSW over the past 30 years has been consistently withdrawing water from extractive use and re-allocating it to the environment, Tasmania, Australia's "greenest" State has been actively increasing its irrigation capacity currently establishing some 14 new schemes. Full details are available here: <http://www.tasmanianirrigation.com.au/>

f) any other matter relating to the adequacy of water storages in NSW.

The key constraint to increasing water storage in NSW is not engineering and it is not finance, it is the policy positions of the NSW Government and the Federal Government which has deliberately reduced the amount of water available for extractive use.

This committee must develop a view whether the current balance is right, or whether it should be redressed by allowing additional extraction. Engineering and Finance can follow.

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