## INQUIRY INTO WATER AUGMENTATION

Organisation:

Mid-Western Regional Council

Date received: 12 August 2016



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12 August 2016

General Purpose Standing Committee No. 5 Legislative Council Parliament House Macquarie Street SYDNEY NSW 2000

Dear Sir/Madam

## RE: INQUIRY INTO AUGMENTATION OF WATER SUPPLY IN RURAL AND REGIONAL NEW SOUTH WALES

Thank you for providing Mid-Western Regional Council with the opportunity to provide a submission to the NSW Parliament's Legislative Council General Purpose Standing Committee No. 5 Inquiry into Augmentation of Water Supply for Rural and Regional New South Wales.

Council would like to specifically respond to 2 items identified in the Terms of Reference which are considered the highest priority in terms of the ongoing security of water supply for the Mid-Western Region.

# Item b) examine the suitability of New South Wales water storages and any future schemes for augmentation of water supply for New South Wales, including the potential for aquifer recharge

Windamere Dam is the primary water storage facility in the Mid-Western Region. It is situated on the Cudgegong River 30 kilometres south-east upstream from Mudgee and 19 kilometres south-west of Rylstone on the NSW Central Tablelands.

#### Background and History

Windamere Dam was completed in 1984 to meet irrigation, stock and domestic needs in the Cudgegong Valley. The Cudgegong Valley is renowned for its agricultural production and the water from Windamere Dam is used to irrigate grapes, fruit and vegetables, maize, grains and lucerne.

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In addition to irrigated agriculture, the dam supplies water to Mid-Western Regional Council for town supplies of Mudgee and Gulgong, industry and domestic requirements, as well as providing environmental flows, flood mitigation and recreation.

In addition, Windamere Dam operates in conjunction with Burrendong Dam to supply downstream water needs in the Macquarie Valley.

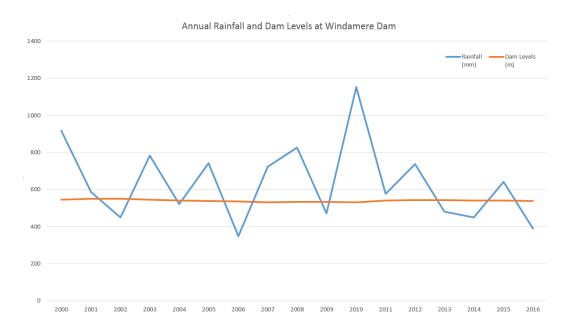
Although the dam's storage capacity is 368,120 megalitres, it has never been full since it was established in 1984. The average annual capacity since it was established is 57% (ie. average 1985-2016), but in the last 10 years average annual capacity has been significantly lower at 38% (ie. average 2007-2016).

<u>Suitability of Water Storage</u> Council is concerned about the long term suitability of Windamere Dam to meet the water requirements of the agricultural sector in the Cudgegong Valley and the ongoing town water supplies in a growing region.

As discussed above, average capacity of 38% is very low and if it continues to fall over the next decade at the same rate that it has fallen in the last 10 years, the Cudgegong Valley and Mid-Western Regional Council water supply situation could be dire.

One of the main issues with Windamere Dam is that the catchment area is inadequate. Whilst the storage capacity is suitable, the actual catchment does not allow the dam to be readily filled even in periods of heavy rainfall. A good example of this is over the last 12 weeks, where the catchment area has experienced above average levels of rainfall, yet actual dam levels have only increased slightly.

The following diagram illustrates that as rainfall fluctuates, there is very little change in water levels.



### Item h.i) the management, appropriateness, efficiency and reporting of inter-valley transfers

Windamere Dam operates in conjunction with Burrendong Dam to supply downstream water needs in the Macquarie Valley.

As discussed above, even with significant rainfall at Windamere Dam in the last 12 weeks, dam levels have only increased slightly. Comparative data for Burrendong Dam over the same 12 week period demonstrates that Burrendong Dam fills at a much greater rate. The Region has had between 200mm and 300mm of rain seeing Burrendong Dam rise from 9.6% as at 30 May 2016 to 70.1% by 8 August 2016. Compared to Windamere Dam rising from 38% as at 30 May 2016 to 40.1% by 8 August 2016.

It therefore, is inappropriate to contemplate bulk water transfers between Windamere Dam and Burrendong Dam without seriously undermining the future sustainability of water supply from Windamere.

In the last 10 years, dam levels at Windamere Dam have fallen to such low levels that security of water supply has become one of the highest priorities for the Mid-Western Region. There is general acceptance that if dam levels fall below 19% capacity that security of water supply becomes high risk and water quality becomes a major concern. In the last 10 years, average annual capacity has been as low as 22% in 3 of the 10 years.

The draft Regional Plan for the Orana and Central West area forecasts that the Mid-Western Region will have a water supply deficiency of 51% to 98% by 2036. A lack of water infrastructure is a major issue, not just to sustain current levels of economic activity in the Mid-Western Region but also to meet essential town water supply requirements. Council is well aware of the importance of protecting scarce water infrastructure and it is critical that it is managed appropriately so that it does not threaten the livelihoods of those that live here.

Mid-Western Regional Council continues to work closely with water users in the Cudgegong Valley to promote and encourage practices which help conserve the local water supply. There are no producers in the area who utilise flood irrigation, instead using drip irrigation or overhead boom spray sprinklers.

It does seem unreasonable for those in the Cudgegong Valley to implement and prioritise water conserving practices, when this is not necessarily the case downstream. Furthermore, it seems unreasonable that current water allocations reflect the efforts made by those in the Cudgegong Valley to conserve water and use what is genuinely required as opposed to what is available.

For the above reasons, Mid-Western Regional Council requests the Committee to support a cessation of inter-valley transfers between Windamere Dam and Burrendong Dam, and instead allow the two separate valleys (ie. Cudgegong Valley and Macquarie Valley) to be managed independently.

Mid-Western Regional Council is not suggesting that water supply is more important in one valley compared to another, but simply that it is critical to protect the water supply at Windamere Dam due to the concerns regarding its viability as a long term water storage facility to cater for the ongoing and future needs of the Cudgegong Valley.

If you have any questions or wish to discuss the issues raised in this submission, please contact me on

Yours sincerely

BRAD CAM GENERAL MANAGER