Submission No 8

INQUIRY INTO WATER AUGMENTATION

Organisation: Lower Darling Horticulture Group

Date received: 4 May 2016

NSW Parliament Legislative Council

General Purpose Standing Committee No. 5

Inquiry into the augmentation of water supply for rural and regional New South Wales

A Submission by the Lower Darling Horticulture Group

May 2016

Lower Darling Horticulture Group

The Lower Darling Horticulture Group was established in January 2015 to represent the common interests of ten families operating six large irrigation properties on the Lower Darling River between Weir 32 downstream of Menindee and the upstream influence of the Wentworth Weir.

The six properties include all of the permanent plantings in the Lower Darling River below Weir 32. The permanent plantings include 326 hectares of high value citrus, stone fruit, wine grapes and table grapes, with collective high security entitlements of 1,159 megalitres and 2,323 megalitres of general security entitlements.

The ten families have farmed along the Lower Darling River for generations.

History of the security of water supply

Horticulture and viticulture in the Lower Darling River valley downstream of Menindee began in the 1920's and has continued until the present day. This irrigation development, which was encouraged by successive governments has been underpinned by continuous flows from 1943 to 2003.

The completion of the Menindee Lakes water storage scheme in the early 1960's, which was designed to secure water supply and foster economic development in far-west NSW further contributed to the security of water supply in the Lower Darling river downstream of Menindee.

In the 1980's, irrigators with permanent plantings in the regulated reaches of the Lower Darling River were issued with high security volumetric licensed entitlements. These entitlements were required by government for permanent plantings and were based on the assumption that under existing levels of development, high security entitlements could be delivered in all years of modelled climatic conditions.

Further, the interstate water sharing agreement for the Menindee Lakes included volumetric triggers that when storage volumes reduced to 480,000 megalitres responsibility for the management of the remaining water reverted to NSW to provide drought security. The 480,000 megalitres was intended to supply water to NSW users for a period equivalent to the longest drought sequence prior to the construction of the Menindee Lakes water storage scheme. This is effectively two years.

Reduction on the security of water supply in the Lower Darling

1 Management changes

Since the 1980's the security of water supply in the Lower Darling River has been significantly reduced for a number of reasons including;

i. irrigation development in northern NSW and Queensland that has reduced the inflows into the Menindee Lakes, other than at flood times

ii. the reduction of the full supply levels and water storage capacity to prevent foreshore erosion and to protect Aboriginal burials and sites of cultural significance

In recent years, and into the future, the security of supply will be further reduced by;

iii. increased releases and rates of release from the Menindee Lakes to meet downstream environmental objectives under the Murray-Darling Basin Living Murray program and the Basin Plan.

As a consequence of these, particularly the management changes identified in points (ii) and (iii), flows in the Lower Darling River have ceased during dry inflow sequences in 2003-04, 2006-07 and most recently in 2015-16, a circumstance that is still continuing.

2 Inadequate drought reserve

Under the interstate water sharing agreement, the 480,000 megalitre volumetric trigger was to provide drought reserve for far-west NSW water users for an effective two year period. However, in recent dry inflow sequences when this trigger has been met, it has been demonstrated that when the water is spread across the four lakes within the water storage scheme, this provides only twelve to fifteen months water supply to water users on the Lower Darling River.

When the 480,000 megalitres trigger has been reached, a significant proportion has been held in the two larger downstream lakes, Lake Menindee and Lake Cawndilla, most of which is unable to be diverted to the Lower Darling River

In 2007 and again in 2015, large block banks have been constructed to provide residual pools for some, but not all, licensed water users on the Lower Darling River. While this work, that was undertaken by the NSW government has been appreciated by the beneficiaries, it is a temporary measure only, is expensive, and has significant environmental impacts.

3 Consequences of management changes and inadequate drought reserve

The issues identified above have had significant outcomes including that;

- there is less water flowing into the Menindee Lakes during times other than flood,
- there is less water able to be stored in the Menindee Lakes water supply scheme
- there is more water being released and at higher rates for environmental purposes

This has resulted, and will continue to result in the 480,000 megalitre trigger for NSW drought reserve being reached far more frequently than designed for.

At the same time the 480,000 megalitre drought reserve has been shown not to provide two years water supply during dry inflow sequences as intended by the interstate water sharing agreement.

The consequence of this is that the reduced security water supply and the inability of government to provide high security water entitlements in all years in the Lower Darling River valley is making the continued irrigation of high value permanent plantings increasingly unviable.

This, in-turn, will have a significant economic and social impact on the Lower Darling region of far-west NSW.

Addressing the challenges

Meeting the economic, social, environmental and cultural outcomes sought by water management is extremely complex. This is particularly the case in the management of the Menindee Lakes in a semi-arid environment with high evaporation rates, having to provide water for downstream states under inter-jurisdictional agreement and in an area with high cultural values.

i. Ensuring two year drought reserve for far-west NSW water users

This can be achieved by amending the Murray-Darling Basin Agreement so that management control reverts to NSW for drought management when the collective volume in the two upstream lakes, Lake Wetherell and Lake Pamamaroo, reduces to 450,000 megalitres irrespective of the volume stored in the downstream lakes, Lake Menindee and Lake Cawndilla.

This would require the agreement of the Commonwealth government and the governments of NSW, Victoria and South Australia that are party to the Murray-Darling Basin (MDB) Agreement.

ii. Reducing access to upstream users during drought

Until recently, the NSW Water management authorities have embargoed access to small flow events by licensed water users in northern NSW until such time as there was sufficient water in the Menindee Lakes or in transit, that would secure Broken Hill's water supply for 18 months.

This policy also served to secure the water requirements of high security users in the Lower Darling downstream of the Menindee Lakes.

Then policy has not been agreed during the current dry inflow sequence, and in the short term the Lower Darling Horticulture Group would like to see this policy reintroduced as town water, stock and domestic needs and the water needs of permanent plantings that will otherwise die, and the needs of the river environment must be a higher priority than annual crops such as cotton.

iii. Providing structural adjustment for licensed high security water users

At a time when the Commonwealth government is recovering water entitlements for the Basin Plan, it is unlikely that that the Commonwealth Government would agree to amending the MDB Agreement that would require the reservation of additional water to provide drought reserve for consumptive water users on the Lower Darling River.

Similarly, the governments of Victoria and South Australia would be hesitant to agree to any amendment of the MDB Agreement if there was a suggestion of reduced water availability to those states, even though it would be consistent with the intent of previous interstate water sharing agreements for the Menindee Lakes.

In consideration of this, an alternative to ensuring two-years drought reserve for consumptive water users in the Lower Darling River would to provide structural adjustment that would enable the transition from the irrigation of high value permanent plantings to agricultural activities relying on more opportunistic and less secure water entitlements.

This would also enable the existing water users to remain in the region and to contribute to the regional social and economic viability.

In this context the Lower Darling Horticulture Group has submitted a Proposal for the Removal of Irrigation of Permanent Plantings on the Lower Darling River for the consideration of the Commonwealth and NSW Governments. At the time of preparing this submission the Proposal has received significant support from industry and the community and in-principle support from governments, but any structural adjustment package has still to be negotiated.

iv. Meeting NSW contribution to the Basin Plan

Under the Basin Plan, significant volumes of water are required to be recovered within each river valley in the Murray-Darling Basin to meet sustainable diversion limits (SDLs) for environmental outcomes within each valley and to contribute to the downstream shared component.

While the water required for within valley targets must be recovered from within that valley, it is up to the NSW government to determine from where contribution to the downstream shared component is sourced.

The recovery of this volume from existing entitlements may also be offset by SDL offset projects that provide environmental outcomes without recovery of existing entitlements.

The Menindee Lakes water savings Project

The reconfiguration of the Menindee Lakes through infrastructure proposals that have been investigated over many years and has the potential to make significant water savings that may contribute to SDL Offsets.

The Lower Darling Horticulture Group supports the infrastructure proposals previously identified, including the construction of a regulator and bank between the two larger downstream lakes, Lake Menindee and Cawndilla, and the enlargement of the outlet capacity at Lake Menindee to the Lower Darling River.

Increasing full supply levels of the Menindee Lakes water storage scheme

In the 1990's the full supply levels of the individual lakes in the Menindee Lakes water storage scheme were reduced by up to a nearly a metre to prevent foreshore erosion and to protect Aboriginal burials and sites of cultural significance.

Since that time significant work has been undertaken at Lake Victoria in south-western NSW in foreshore protection works, the physical protection of Aboriginal burial sites and operations that reduce the potential for erosion and damage to cultural sites.

If similar work was undertaken at the Menindee Lakes the full supply levels could be increased that would enable the storage off additional volumes during floods and providing some additional flood mitigation.

This additional water could be used to increase the security of water supply downstream of the Menindee Lakes or managed to provide environmental benefits downstream that could contribute a significant volume to the NSW contribution to downstream shared component of the Basin Plan through an SDL offset.

Further, as has been demonstrated at Lake Victoria, the involvement and employment of the local Aboriginal community in the identification and protection of Aboriginal burials and sites of cultural significance contributes significantly to achieving social, economic, environmental and cultural outcomes in the region.

Conclusion

The Lower Darling Horticulture Group appreciates the opportunity to make a submission to the NSW Legislative Council Inquiry into the augmentation of water supply for rural and regional NSW.

The Group has hoped to bring to the Committee's attention the reduction of the security of water supply in the Lower Darling River downstream of Menindee caused by management changes to the water storage scheme over the past twenty years, and the consequences of those changes which are not caused by droughts but have reduced the capacity for water users to manage through droughts.

These changes have reduced the viability of the continued irrigation of high value permanent plantings in the Lower Darling River.

However, in recognising the impact of the reduced security off water supply the Lower Darling Horticulture Group has sought the commitment of the Commonwealth and NSW governments for a structural adjustment package that would enable the continued operation of these irrigation farms using less secure water entitlements.

In addition, the Group is seeking the support off its proposal to increase the full supply levels in the Menindee Lakes. This would increase the security of water supply to downstream users or, if it is considered of greater community good, to provide a significant volume for environmental use and a potential SDL offset that would reduce the requirement to recover water from existing entitlements to meet the NSW contribution to the Basin Plan.

If the Committee would like any further information or wish to discuss any of these issues further, please contact Rachel Strachan on or Alan Whyte on