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17 August 2017

Attention: Water Resource Plans
Water & Catchments
Department of Environment, Land, Water and Planning
PO Box 500
EAST MELBOURNE VIC 3002

Dear Sir/Madam

Storage Manager Submission on Draft Wimmera-Mallee Water Resource Plan

Please find enclosed the submission on the Draft Wimmera-Mallee Water Resource Plan made by the Storage Manager for the Wimmera-Mallee System Headworks (Wimmera-Glenelg System).

The Storage Manager has 11 Objectives which it must meet in operating the Wimmera-Mallee System Headworks. In order to satisfy these objectives, the Storage Manager relies upon equitable water sharing and robust entitlement frameworks. These frameworks must be underpinned by sound hydrologic modelling and receive the support of entitlement holders.

Both future water availability and water quality pose threats to the water resources of the Wimmera and Glenelg river systems, and may present different challenges for the different user groups who access water from these catchments. Water quality can be distinctly different in different parts of the catchment, and the Storage Manager implements operational strategies to manage and mitigate water quality risks where possible.

The function of Storage Manager is integral to the management of regulated surface water resources for the benefit of entitlement holders, the environment and communities.

Yours faithfully

Kym Wilson
Storage Manager



StorageManager

WIMMERA-GLENELG SYSTEM

Submission on Draft Wimmera-Mallee Water Resource Plan

July 2017

1. Background

The Murray-Darling Basin Plan requires Water Resource Plans to be compiled for each Water Resource Plan area within the Basin, covering both surface water and groundwater resources.

The Water Resource Plan for the Wimmera-Mallee area outlines how Victoria's management of water resources in this area satisfies the requirements of the Murray-Darling Basin Plan.

The Water Resource Plan for the Wimmera-Mallee Water Resource Plan area has been compiled by the Department of Environment, Land, Water and Planning, supported by a Technical Advisory Group.

Feedback on the Draft Wimmera-Mallee Water Resource Plan has been invited through regional community forums and by written submission.

2. Storage Manager feedback on the Wimmera-Mallee Water Resource Plan

2.1 Water Availability and Climate Change

The Grampians reservoir system relies on surface water resources to support the needs of consumptive and environmental water users. For many of these users, there is no alternative to surface water for meeting their water requirements. Recent research from the Victorian Climate Initiative has identified that state-wide, the greatest climate change impact is projected to be observed across western Victoria, in terms of reduced rainfall and runoff.

Climate change poses a significant risk to the Storage Manager in meeting its Storage Manager Objectives and maintaining equitable access to water for all entitlement holders. It is of paramount importance that entitlement and water sharing frameworks recognise the unique attributes of the Wimmera-Glenelg system and facilitate equitable sharing of, and access to, water stored in reservoirs.

2.2 Entitlements and Water Sharing

The Grampians reservoir system operates on a 'collective resource pool' basis, meaning that any entitlement holder's allocation may be in any reservoir at any time. The existing entitlement framework within the Wimmera-Mallee Water Resource Plan Area does not provide adequate mechanisms to ensure that access to water by entitlement holders from any particular reservoir is balanced and equitable to minimise the risk of allocation becoming 'stranded' in reservoirs inaccessible to a particular entitlement holder. Large and variable water users, for example, the environment, can have a significant influence on the volume of water held in particular reservoirs.

Recent history has shown that this particular risk will generally only manifest itself during dry period with reduced water availability within the headworks system. It is also important that entitlement holders' access to water is managed in a way that demonstrates consistency with Storage Manager Objectives.

2.3 Basin Plan Water Recovery

The Wimmera-Mallee area satisfied its Local Reduction Target of 23 GL in 2012 following the closure of the Wimmera Irrigation District, and sale of 28 GL entitlement to the Commonwealth. This sale resulted from a collective Irrigator Lead Proposal to sell 19,000 ML of irrigation entitlement and 9,000 ML of distribution loss to the Commonwealth, and subsequently decommission the irrigation district.

The 28 GL of Commonwealth entitlement at the time of sale in 2012 was understood to have a modelled 'reliability' of 81%, based on a historic period 1891 to 2009. This is consistent with the modelled reliability of the former irrigation entitlement when the Wimmera-Glenelg bulk entitlements were set in 2010. On this basis, $28 \text{ GL} \times 81\% = 22.68 \text{ GL/yr}$, being the long-term average water available to the Commonwealth under this entitlement. This is very close to the figure of 22.6 GL shown on the MDBA 'Progress on water recover' website⁽¹⁾.

It is the Storage Manager's observation that with the development of the 2012 'CP15 post irrigation' Murray Darling Basin Cap Model for the Wimmera-Mallee Valley, the modelled reliability of the 28 GL Commonwealth entitlement increased to 91% (based on a historic period 1891 to 2009), while there was no improvement in the reliability of other entitlements. At this level of reliability, the long-term average water available to the Commonwealth under this entitlement would be 25.48 GL, or 2.88 GL (13%) greater than the currently recognised long-term average water recovery volume in the Wimmera-Mallee Basin.

Sustainable Diversion Limit models and Basin Diversion Limit models come into effect from July 2019. It is GWMWater's understanding that these models for the Wimmera-Mallee area are to be closely based on the existing Murray Darling Basin Cap Model and associated diversion limits. It is important that all water recovered for the environment is fully recognised and accurately reported. It is also of great importance that the integrity of entitlements are maintained, and where the modelled reliability of a particular entitlement increases, the reasoning for this is well understood by stakeholders.

Stakeholders and entitlement holders must have confidence that any increase in modelled reliability of environmental entitlements held by either State or Commonwealth agencies is fair, explainable and not detrimental to other entitlement holders, Sustainable Diversion Limits or Basin Diversion Limits.

2.4 Water Quality

Water quality is widely described through the Water Resource Plan in a general nature and in respect to various waterways. The Water Resource Plan does not describe water quality in terms of the water quality requirements or aspirations for the various user groups (consumptive, environment, recreation). Reference is made to 'fit for purpose' water quality, however this concept is not explored within the Water Resource Plan. There would be value in defining what 'fit for purpose' water quality means for particular user groups. It is the Storage Manager's understanding that there is a wide range in the quality of water which is deemed 'suitable for use' by different user groups.

Within regulated systems such as the Wimmera-Glenelg System (Wimmera-Mallee system headworks), operational strategies form an integral part of managing and mitigating water quality risk for all entitlement holders, consumptive and environmental. These strategies are reviewed and updated through the Storage Manager's Annual Operating Plan and Quarterly Operating Plan Supplements.

3. References

(1) Progress on water recovery, Murray Darling Basin Authority, accessed 2 August 2017.
<<https://www.mdba.gov.au/managing-water/environmental-water/progress-water-recovery>>