

Submission to Draft Water Resource Plan for Northern Victoria

After reading *Victoria's North and Murray Water Resource Plan (Draft for Comment)* I acknowledge that it has required a diverse amount of expertise, investigative work, accumulated knowledge and experience to present an administrative plan for what is a very complex system to manage.

As a user of water from the system I appreciate that in most years the system has been able to make available a full allocation of annual entitlements. This demonstrates that the plan is substantially sound and operates effectively and is a credit to those involved in designing, implementing and administering water resources for Northern Victoria.

In this submission I would like to put forward some views that I believe could improve the security and certainty of water delivery for users of the system. It centres around Carryover water and Seasonal Determinations in the Goulburn and Murray regulated systems as mentioned in Chapter 7 of *Victoria's North and Murray Water Resource Plan (Draft for Comment)*.

In the *Victoria's North and Murray Water Resource Plan (Draft for Comment)* surface water Carryover is described (The State of Victoria Department of Environment, Land, Water and Planning 2019, p.187) as follows:

“Carryover arrangements allow water not used in a water season to be taken and used into the next water season. The central principle behind carryover is that unused water may be carried over by individuals to the next year, but must not displace inflows that support new allocations. Carryover is designed to maximise the water available in the early part of the season and is available to holders of both high and low-reliability water shares. It allows the holder more flexibility to hold, use or trade water when it's of the greatest value to their business, and to prepare for water shortages.”

I believe that the above quote does not adequately describe the purpose of Carryover water and that the last 2 sentences of the above quote should be changed to the following:

“Carryover is designed to maximise the water available [for new season allocations, both,] in the early part of the season [and in the event that seasonal determinations result in less than 100% of entitlements] and is available to holders of both high and low-reliability water shares. It allows the holder more flexibility to hold, use or trade water when it's of the greatest value to their business, and to prepare for water shortages[, bearing in mind that Carryover water will only be available, for use or trade, when the system has adequate water resources available].”

In other words, the primary purpose of carryover water is to bolster the new season allocations and secondary to that, it *may* become available, for use or trade, if seasonal determinations reach 100% of annual entitlements.

Therefore, the aim should be to accumulate carryover water to optimise the volume held in storages (Dartmouth and Hume), taking into account the need for sufficient air space for flood mitigation, based on historical determinations of optimal levels for particular dates in the annual 'storage and use' cycle.

Policies, regulations, rules and procedures should then support and encourage these aims amongst all the stakeholders of the water resources system.

I believe that some of the current/planned carryover provisions do support and encourage these aims but some of the provisions do not.

Carryover provisions that *do* support and encourage the previously stated aims:

- Restricting access (use or trade) to Carryover water until seasonal determinations are 100% of entitlements.

Carryover provisions that *do not* support and encourage the previously stated aims:

- Applying a 5% reduction on carryover water for evaporation losses.
- Permitting unregulated access to carryover water once seasonal determinations reach 100% of entitlements and there is a No Risk of Spill declaration.
- Denying access to carryover water when there is a spill or risk of spill.

Recommended Carryover provisions:

1. Maximum carryover limited to an amount equal to water entitlement.

This is part of the current/planned provisions and it is considered appropriate to have an upper restriction to the amount allowed for carryover.

2. No reduction for evaporation losses.

It is unfair for users with carryover water, to bear the entire burden for losses in the system as they are supporting all users and also supporting '*Above Cap*' and '*System water*', therefore, this burden should be spread across all users and factored into the seasonal determinations.

3. Seasonal determinations for new season allocations to be made up to a maximum of 100% of entitlements.

This is part the current/planned provisions and it is considered appropriate to restrict allocations based on stored resources, system losses, and inflows into the system. As per item 2 above, system losses will be absorbed into these determinations.

4. Seasonal determinations for carryover water allocations to be made once new season allocations reach 100% of entitlements.

The current/planned provisions recognise that below average resources will result in allocations of less than 100% of entitlements and I agree with this. When 100% is reached and no risk of spill is declared, resources above 100% of entitlements (which don't result in a spill) are exposed to use and trade of the full amount of carryover water. I *do not* consider this to be a responsible attitude as these above average resources should be managed in accordance with their volume and this is why I recommend seasonal determinations for carryover water be introduced. For Example: This situation has occurred this year (2018/2019) and if there are no significant inflows into the system in the remaining 3.5 months we will enter the new season with storage resources of less than 20%. Releasing carryover water in stages based on resources available is needed to ensure optimisation of resource storage.

5. Holders of carryover water to forfeit an amount of their carryover water equal to the shortfall in use or trade, of possible usable or tradable carryover water, assessed at the end of the season, of twice the carryover water held at the beginning of the season.

This will make carryover of 50% of entitlements reasonably secure for users. Carryover above 50% will be less secure and users would need to manage it carefully.

6. No provisions in regard to spills.

Under the current/planned provisions, when there is a spill or high risk of spill, that is, an abundance of water resource, carryover is not available, although it is available when there is less water resource. I would consider that when a spill occurs that this is the most appropriate time to allow use or trade of carryover water. The current/planned spill provisions appear to be only in place to reduce the amount of carryover entitlements by forfeit. This has the result of penalising the users who are supporting all users to achieve a regular full allocation of entitlement. The introduction of seasonal determinations for carryover water, as per item 4 above and forfeiture of carryover water as per 5 above, will allow for management of carryover entitlements, without the need for spill provisions and without unduly penalising users that have carryover holdings.

Conclusions:

That carryover water be managed more effectively to optimise the water resources and provide more certainty for users that hold carryover water.

The carryover water provisions should encourage users to conserve water, when seasonal conditions permit, to support the water resource system so that the next season provides maximum benefits to all stakeholders in the event that lower than average rainfall is experienced.

Carryover water should be portrayed more as altruistic rather than as opportunistic. Users that hold carryover water are supporting all users to achieve a regular full allocation of entitlement, and, rather than incurring penalties for holding carryover water, users should be encouraged in their efforts to conserve our limited resources and support the stable operation of the system.

REFERENCES:

The State of Victoria Department of Environment, Land, Water and Planning (2019) *Victoria's North and Murray Water Resource Plan (Draft for Comment)*.