

SUBMISSION TO THE INQUIRY INTO THE MANAGEMENT, GOVERNANCE AND USE OF ENVIRONMENTAL WATER by the ENVIRONMENT, NATURAL RESOURCES AND REGIONAL DEVELOPMENT COMMITTEE

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Management, governance and use of environmental water in Victoria

The VEWH must be transparently accountable with all decision making and reporting on environmental flows and they must be answerable to the consequences of those decisions.

Millions of dollars have been spent on recovering environmental water through so-called “water-saving” projects or Commonwealth buy-back, but there simply are not the operating tools in place and real-time monitoring systems to manage flows in the precise manner that is required or should be expected in light of the massive expenditure involved of public monies.

Even after nearly 5 years of the start of the Murray Darling Basin Plan, there are still no real time monitoring telemetry gauges on many of the tributaries, for example over 50% of the Yea River Catchment, a major tributary to the upstream Goulburn, is ungauged, nor are critical points on the upstream Goulburn Catchment gauged. Real-time monitoring is so badly lacking, that management of flows at best must be simply guess work.

Without this precise accounting of water flows in and out of the many tributary systems, how can return flows to rivers of environmental water be credibly accounted for?

Page 19 of the VEWH report states:

“In 2015-16, a total of 590,987 ML was reccredited to the VEWH accounts for return flows delivered through upstream sites to the River Murray. This included:

- 289,262 ML from the Goulburn River
- 25,526 ML from the lower Broken Creek
- 12,589 ML from the Campaspe River
- 263,609 ML from the River Murray, Barmah Forest and Hattah Lakes.

Of this, 23,499 ML was reused at sites in Victoria, including Lake Wallawalla, Hattah Lakes, Gunbower Creek and Forest, while the remaining volume continued to flow down the River Murray to South Australia”

There has been no investment in technology such as CARM (Computer Aided River Management technology) as used on the Murrumbidgee, to precisely calculate inflows by using real time flow and rainfall telemetry measurements, and outflows that maximise the efficiency of river operations and deliver water where and when it matters, as well as improving flood management operations.

It is simply impossible to account for return flows with any accuracy with the tools currently available and the VEWH must be asked to explain in explicit detail how these above figures have been calculated as in my opinion they are nothing but a 'guesstimate'

Nor do river operators have the tools to minimise flood risk impacts of large environmental regulated releases when there are concurrent unregulated flow events, therefore the use and management of environmental flows puts all landholders along the river systems at risk of unintended flooding impacts.

The VEWH Report states on Page 12:

“The VEWH and waterway managers also conduct operational monitoring and short-term ecological monitoring to inform management decisions and demonstrate that outcomes have been achieved, for example fish movement in the Lower Murray wetlands (see following case study).

This monitoring facilitates adaptive management and ensures environmental water continues to improve the health of rivers and wetlands and the plants and animals they support. The VEWH also reports on when, how and why environmental water is used through this annual report and other key documents.”

It is relatively easy to find information that defends the importance and success of environmental watering, but extremely difficult to find any written documentation of damage caused. For example landowners along the length of the Goulburn have been witnessing for a number of years, the slumping and erosion of the river bank which they believe is caused by the constant raising and lowering of water levels and the fact that large numbers of mature Red Gum trees on the banks are falling. Of course on the lower end of the river and into the Murray system landowners have seen constant evidence of an explosion in carp populations.

If VEWH monitoring is in place to “inform management decisions” why are we not seeing the above “disbenefits” documented?

Evidence of the outcomes of environmental flows whether beneficial or otherwise must be made transparently available to the public.

How environmental water and environmental water managers interact with, and utilise, management tools such as carryover and whether carryover of environmental water impacts on the availability of water for irrigators

Tony Burke, at Mildura at a meeting with irrigators on February 10th 2012, and then the Minister for Water and the Environment stated *“I am absolutely aligned with the concern of during flood years and entitlements simply being banked in water storages. If you tried to use it in one year, it would have an absolute and immediate impact on your allocation for that water year.*

I have met in the last couple of days with the Commonwealth Environment Water Holder about this to try to make sure we put some boundaries around the use and about how we can still be meeting objectives of his statutory role but not creating worst of all worlds, where straight after a flood, your allocations taking a hit even though your water storage is full. That would be a ridiculous outcome and we're working together that we don't do that.” <https://www.youtube.com/watch?v=jwD5HdUNTNM>

As far as carry-over is concerned, it is not a level playing field with irrigators being severely disadvantaged, with in recent years, irrigators not receiving 100% allocations despite high storage levels.

If management of environmental water continues as in the VEWH Report 2015-2016, irrigators are seriously disadvantaged.

Page 20 of the report states “VEWH carryover – a number of allocation trades were undertaken at the end of the year to make best use of carryover capacity and minimise risk of carryover spilling in 2016-17. For example, 3,000 ML was traded from the Goulburn system to the Campaspe system.”

This benefits the VEWB by utilising a book entry to protect 3,000ML in case of a spill, but places irrigators at a distinct disadvantage in that the water still physically remains in the Goulburn system and Eildon Weir, adding to the reality that in a spill irrigators will lose their water and with it hundreds of thousands of dollars worth of their most precious resource which then negates their ability to produce food for the nation, and to make a reasonable living so placing them in a dire financial position.

Irrigators in the main, do not have the same ability as the VEWB to protect and minimise losing their water in case of a spill.

With carryover rules however, the VEWB is in a win-win situation. If there is an actual spill, the environment receives a watering from the natural rainfall, plus releases which include ironically irrigators water, but VEWB can park water where possible, thereby minimising their allocation loss.

Assessment of fees and charges applied to environmental water and whether these differ from those imposed on other water users.

We are continually told that the Environmental Water Holder is “treated exactly the same as all other irrigators” as the CEWH and VEWB are simply irrigators also.

The truth of the matter is that this is totally incorrect with regard to the following points:

1)Irrigators are compelled to pay all delivery charges and fees as dictated by the market which is currently approximately \$150/ML. The VEWB as far as I am aware pays only \$10/ML headworks fee.

2)When the government bought back water, they left all the costs of that water with the irrigation district and its customers, yet the EWH has the added benefit on many occasions of “piggy-backing” their water on top of irrigators water down the river system.

Removing irrigation water for environmental use from the Victorian irrigation districts and leaving behind the on-going costs of this acquired water has had a devastating financial effect on individual irrigators, their communities and the Goulburn Murray Irrigation District. Thousands of farmers are now confronted with paying delivery shares despite have very little or no water left and also with paying increasingly higher Goulburn Murray Water fees as GMW attempts to remain sustainable with an ever decreasing resource. Fixed fees make up a larger percentage of GMW’S income than water delivery and the EWH pays for only a small percentage of these fixed fees as it utilises mainly the main river channel for delivery but pays very little for this service.

The GMW submission to the Senate Select Committee on the Murray Darlin Basin Plan February 2016 stated:

“Environmental Water Holders (EWH) are now the largest holders of Victorian water entitlements and therefore GMW’s largest customers for storage services and for river operation services. Most of the environmental water portfolio has been acquired through purchasing programs and complemented with entitlements converted from GMW Bulk Entitlements based on water savings achieved through investment in modernising the gravity

irrigation distribution systems.

Although the majority of environmental water deliveries are to supplement flows in the rivers there are significant deliveries made to environmental assets which utilise the GMW irrigation delivery network. In order for GMW to remain financially sustainable we need to recover operating costs through a tariff system which is equitable for all customers. **The EWH must pay their way for services received.**

Payment for like service is an equity issue. Environmental entitlements are no longer minor compared to all other entitlements and **environmental deliveries can no longer be accommodated at little or no marginal cost by adapting the environmental watering delivery schedules to suit the operation of the system.** The scale of environmental entitlements and deliveries now demands that they be treated equally for access to the irrigation infrastructure.”

The GMW submission also states:

“Because the EWH water holding are so large, there is the potential to distort water markets, system operational decisions, capacity sharing considerations, recreation interests and other features of the water supply system that communities have become accustomed to over long periods since the water systems were developed and have serviced the relatively stable and predominantly irrigation based operating patterns. The EWHs must continue to have regard for these factors when making decisions about the timing and scale of water market activities and operational orders.”

The MDB Plan and purchase of environmental water out of the Goulburn Murray Irrigation District has brought about the demise of the GMID, transferred water use to areas further away from the primary resource storage areas and so increased the losses of water delivery and increased the amount of water required to water crops, for example it takes 3 ML of water released from Lake Eildon to deliver 1ML of water at Mildura.

Assessment of the role of environmental water management in preventing or causing ‘blackwater’ events

Due to the increase in blackwater events and carp proliferation since the inception of environmental flows there must be further investigation into the part environmental flows are playing in causing these environmental ‘disbenefits’, particularly with regard to the frequency, timing and flow volume.

The Murray -Darling Freshwater Research Centre document *‘Understanding the Relationship between Low Dissolved Oxygen Blackwater Events and Managed Flow Events in the Edwards-Wakool River System’ June 2010* states blackwater events “are a natural and important part of the ecology of lowland rivers. However, if the blackwater event occurs at the wrong time, the dissolved oxygen (DO) in the water column can decline to the point where aquatic organisms die.”

This document also states “The timing of flows is critical in avoiding blackwater events since peak litterfall contributes significant quantities of organic matter to the system within a very short period of time. If flows commence prior to peak litterfall, the carbon will be diluted and hence there is less likelihood of low dissolved oxygen in the water column.” (Page 6)

Other factors critical to avoiding native fish and crustacean deaths in a blackwater event are water temperature and the amount of accumulated litter.

‘Managing Flows and Carp’ February 2016 by the Arthur Rylah Institute (ARI) for Environmental Research and DELWP, shows that Barmah lake,(as well as the Lower Lakes) are one of the most significant breeding grounds for carp, and the modelling predicts that if you inundate wetlands back to back, this significantly increases the chances of carp proliferation. So why have seasonal watering plans

declared they intend to again water the Barmah Forest, thus ignoring the best science available? As that water returns to the Murray of course it will lead to an increase in carp breeding further down the system.

The ARI report states “the risks of major Carp population increases are likely to be limited under within-bank flows, with Carp populations slowly declining in most instances..... in-channel flows lead to a gradual decline in the Carp population.”

Back to back overbank watering is rarely a natural event in Australia. This can only increase the likelihood of blackwater events and carp proliferation.

The document ‘*Quantifying water requirements of riparian river red gum in the MDB, Australia-implications for the management of environmental flows*’ (Doody et al 2015) states that if the red gums are inundated at a frequency of 1:2 years they are maintained in good condition and a 1:5 years watering will still adequately recharge them.

The objective under the MDB Plan for 70%-90% of red gum forests and woodlands to be maintained in good condition may no longer be achievable with a predicted drying climate and increasing water deficiency.

The proposed frequency of overbank flows in the Goulburn River are based on outdated flood flow data from 1960- 2014. Due to a drier climate cycle, we no longer receive 7-8 natural floods per decade. In the last 20 years we have, in the Upper Goulburn Catchment received 5 floods in the last 20 years This means that the current management of frequent environmental flows may well bring about the demise of red gum forests by not allowing them to naturally adapt to a drying climate.

Against the above scientific and factual evidence the management of environmental water by the VEWH must be called in to question.

Consideration of what barriers exist to the more efficient use of environmental water and how these may be addressed

The MDBA in many meetings with landowners in the Upper Goulburn Catchment, have defined the more efficient use of environmental water as a ‘relaxed constraints’ scenario, whereby landowners along the rivers would have their properties flooded by overbank flows and mitigation would be in the form of easements and compensation.

The following is a list of the barriers that exist to the ‘more efficient’ use of environmental water. How can these barriers be addressed? THE FACT IS THEY SIMPLY CAN’T.

1. The natural physical restraints of the major river systems cannot be overcome, nor can the constraints of the flat, hot, arid landscape, where 60% of flow volume is lost in evaporation on its journey to the Murray Mouth and where an average 984GL /year is lost in the Lower Lakes alone. *As Tony Burke, Minister for Water and The Environment stated in 2011, there are “genuine capacity constraints in the landscape that need to be acknowledged and we don’t do the environment or anyone a favour if we acquire a volume of water and have the impact that may have on communities and then discover that it can’t be actually used.”* <https://www.youtube.com/watch?v=jwD5HdUNTNM>

2. Legislative Requirements.- The Water Amendment (Water for the Environment Special Account) Bill 2012 clearly states that there must be no negative social or economic impacts on Basin communities in the recovery of the 450GL upwater. It is also clear that the MDBA is responsible for overseeing a project

that is legally enforceable, that is, it falls within the legal requirements of the MDB Plan and the Water Act.

3. The CEWH, Mr David Papps, has stated numerous times at public meetings and in letters to landowners that he will “NOT intentionally inundate private property without the consent of landholders.” The decisions with regard to water orders made by the CEWH are totally independent of the MDBA and the Federal Govt. are they not?

4. Landowners are resolute in their refusal to allow the creation of easements on their private property. Both State and Federal Governments have clearly stated in letters to landowners that they “will not intentionally flood private land without prior agreement of landholders, nor compulsorily acquire land or easements.”

5. THE FACT IS THAT NO AMOUNT OF DOLLARS OR MITIGATION CAN COMPENSATE THE LOSS OF PRODUCTION, SIGNIFICANT FLOOD DAMAGE, AND DEVALUATION OF OUR PROPERTIES WHICH WE WILL SUFFER AS A CONSEQUENCE OF THE TIMING, FREQUENCY AND DURATION OF THE PROPOSED FLOODING WHICH WILL INCREASE FLOOD EVENTS TO 8 YEARS IN EVERY 10 ON AVERAGE, IN PERPETUITY.

6. River operators are keenly aware of the need to manage risks to keep within operating constraints, which is why the Goulburn Murray Water river operators in their submission to the Senate Inquiry on the MDB Plan Feb 2016, made it very clear that they cannot accept a transfer of operational risk to GMW and its customers. The MDBA have however stated that GMW will be the body held responsible. It is very obvious that with the trend to more extreme weather events that operational risks increase substantially.

END OF SUBMISSION

.DATE 19TH AUGUST 2017