# People for A Living Moorabool

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To: Chis McAuley

Senior Manager

Sustainable Water Strategies

Water and Catchments

Department of Environment, Land, Water and Planning

Dear Chris,

Thank you for the opportunity to comment on the review of the Central Sustainable Water Strategy (CRSWS).

People for A Living Moorabool came together as a group in 2008 to lobby to bring forward environmental flows that had been promised for the Moorabool River in the CRSWS. Many of us had individually been raising concerns about the dire state of the river years prior and were involved in the consultation of the Strategy.

Our charter reads:

"Our group unites those who want to keep the full length of the Moorabool River alive. This one idea of a 'living Moorabool' is our guiding principle. It means that our commitment to be a voice for the river will override any support for the rights of particular water users. We have a single focus - the right of this magnificent, but highly stressed river, to an effective environmental flow. We are motivated by the politics of unity not division."

PALM's submission to this review understandably focuses on the Moorabool Catchment, but regard the issues we raise have relevance across the Central Region.

In our experience the CRSWS has been a powerful and substantive document. It has allowed groups such as ours to advance our advocacy for the Moorabool River with Councils, the State Government and the Federal Government as well as other agencies.

In our opinion the CRSWS has enabled the river and its needs to have a far more 'equal seat at the table' when decisions around water allocations have been made. It has provided hope to those who had been witnessing the Moorabool River in terminal decline.

## **About the Moorabool River**

The Moorabool River has its headwaters to the north east of Ballarat and flows in a southerly direction until its confluence with the Barwon River on the outskirts of the city of Geelong. It is the second largest river in the Corangamite region and bears the unenviable distinction of being the most flow stressed in Victoria.

Its waters serve both the major cities, many smaller country towns and numerous farming enterprises. It base flows are stripped for irrigation, its basin has by far the highest ratio of farm dams, and the total volume of urban water authorities' storages exceeds its annual inflows.

While much of its catchment has been highly modified, the Moorabool still has many areas of stunning natural beauty and cultural significance. Partially because the Moorabool River is a conduit for urban water transfers, its water quality outside of dry years is relatively high.

However average passing flows of 90 ML per day near its mouth have been reduced to just 10ML. This year the river ceased to flow once again.

It is a river which deserves the full attention of those who control its fate.

#### The Review

PALM wishes to raise several issues that we feel will assist in assessing the effectiveness of the CRSWS actions on the Moorabool River and hopefully inform further actions to secure its future.

## Acknowledging the increased effectiveness of environmental flows

Coordination between the Corangamite Catchment Management Authority (CCMA) and Barwon Water has seen the piggybacking of environmental flows on top of urban water releases from the Lal Lal Reservoir, thus markedly extending their reach down the system. PALM had originally been informed by the CCMA that environmental releases were expected to have little impact on the lower Moorabool, but cooperation between these two agencies has seen flows regularly reach the confluence with the Barwon River.

We firmly believe that there should be no decisions made that would adversely impact this arrangement.

#### Farm/Small Catchment Dams

A proper reflection of the impact of small catchment dams including stock and domestic, commercial and irrigation is a notable omission from the document. These dams have an enormous impact within the Moorabool Basin with volumes equating to 21.4% of the average annual water resources available, a figure which is the highest in the state.

The latest Victorian Water Accounts state;

The estimated volume of water harvested from small catchment dams represents the largest diversion of water in the Moorabool basin.

Victorian Water Accounts 2015-16 page 156

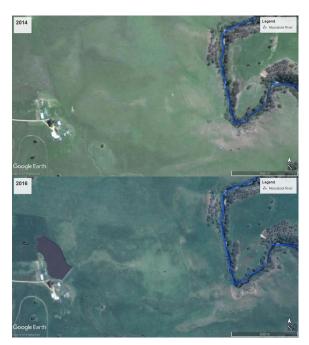
In the Moorabool Catchment new and extended dams continue to proliferate (see Figure 1) both eroding the gains made in securing environmental flows and serving to extend the impacts of drought on the river. From the review:

Action 2.5: Further work on impacts and ways of mitigating impacts of small catchment dams.

Comment: The action provided a long-term mechanism to understand the impact of small-catchment dams and to incorporate it into future planning and management. A statewide policy on dams was included in the Northern Region SWS in 2009 and registration of dams in rural residential areas was introduced in 2011.

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PALM considers that to label this action as achieved is not warranted. Registration of farm dams alone is not a path toward, nor capable of, mitigating their impacts.



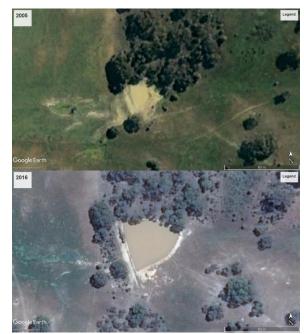


Fig:1

Recognition of that impact in the Moorabool Basin should lead to capping their numbers and instituting a trading scheme similar to that used managing ground water within applicable areas. Any dam would need to be decommissioned before its volume could be traded to enable the construction of a new dam within the basin boundaries.

## The Lethbridge Intensive Agriculture Precinct

Opened in May 2016 this precinct is to be supplied with up to 900ML per annum directly from the Moorabool River. Barwon Water has insisted there will be no increase in their existing bulk entitlement volumes. But having such a system totally reliant on the most flow stressed river in the state was deemed by PALM neither prudent nor fair.

In their Water Supply Demand Strategy Barwon Water earlier addressed community concerns about the authority's reliance on such a flow stressed river:

"The Moorabool system will contribute a smaller percentage of our water supply as new sources are commissioned. However, when water is available in the Moorabool system, it provides drinking water at a low cost to customers."

2012-2062 Water Supply Demand Strategy (page 43)

If the Moorabool River water is indeed regarded as source low cost drinking water, then diverting it to wash down poultry sheds and piggeries must ultimately serve to raise the cost to urban water users. This becomes even more problematic given Barwon Water has purchased further land for the disposal of excess recycled water from its Bannockburn treatment plant, just 10 kilometers to the south.

There are several issues here, what should be the value placed on low cost, gravity feed drinking water from natural sources? Should profit making enterprises have an equal call on these resources both in terms of availability and cost? Should those interests be instead leveraged through price to better fund alternative sources of water such as recycling?

The issue for the Moorabool River is that given another drought the interests of the multimillion dollar businesses within the precinct will likely prevail over the interests of the river. Thus, the development is expected to markedly impact the resilience of the river in drought conditions.

The only way to properly rectify the situation is to have it connected to the Geelong system as originally detailed in the initial proposal.

## The Fyansford Quarry discharge

Action 4.8a saw the treated discharge of water from the Fyansford Quarry being released into the Moorabool River. As the discharge point is less than 7 kms from the confluence with the Barwon River this had very little impact on the overall condition of the Moorabool.

It should be recognized that there needs to be flows of greater than 8ML per day for the Moorabool River to make it past the Fyansford Quarry. This is because of the serious disrepair of earlier diversion works. There are a series of large holes in the concreted river bed through which most of the flow is lost. When they dry out, fish kills occur. The discharge point from the quarry is downstream of these holes resulting in a section of the Moorabool which is usually dry.

Serious attention needs to be directed at this issue. Appropriate repair works need to be completed and the discharge point moved further upstream to ensure proper connectivity. It is only then that Action 4.8a can be deemed a benefit to the Moorabool River.

#### Potential future actions are not discussed in the review

There are four "Potential future water recovery options to provide additional water for the Moorabool River" detailed in the CRSWS. PALM would like these to be acknowledged and assessed within the review.

The second option details 2,500ML to be transferred to the environment in the west and lower Moorabool catchments which is dependent on augmentation of supplies from the Jan Juc aquifer. We understand there is not a current pumping regime in place, but if or when there is there should be a dividend for the river.

Options 3 and 4 detail 6,500ML of environmental water to be transferred from Central Highlands Water and Barwon Water entitlements in the west and lower Moorabool catchments. This is to be made available by the substitution of potable water with treated recycled water.

Barwon Water confirmed its commitment to supporting the Moorabool's environmental health through detailing the following actions within its Urban Water Strategy (page 9):

9.3 We will work with stakeholders to explore options to achieve goals for environmental flows in the Barwon and Moorabool Rivers, while continuing to ensure secure and affordable water supply in the Geelong system.

10.3 We will explore opportunities for the evolving water grid and markets to help contribute to meeting environmental water recovery targets in the Barwon and Moorabool Rivers.

PALM considers that tying potable water substitution to environmental gains in the State's most flow stressed river would serve strengthen the case for recycled water within the community.

The CCMA's Moorabool River Environmental Management Plan 2016 detailed three Water Recovery targets "required to safeguard the river's environmental values for conservation and for future generations". The first two were labeled 'Minimum" and the third 'Aspirational'. The first required an additional 2640ML "to provide the critical minimum environmental water volume to protect the highest priority ecological values" under dry conditions. The second target of 9,000ML was to provide "the minimum environmental water volume to protect priority ecological values under wet/average conditions".

The amounts detailed in the "Future water recovery options" would allow for these minimum targets to be achieved. PALM sees them as the best hope for the Moorabool River.

## **Climate Change**

Without the severe impact of overallocation, the Moorabool River would have significant resilience to climate change. It has very little now.

While humans have the capacity to explore other sources of water the Moorabool River does

not. It is totally reliant on inflows to support the various ecological communities which depend upon it.

The impact of climate change will be disproportionately carried by flow stressed systems, particularly those catchments that have been highly modified. The wetlands, springs and forested areas which sustained the Moorabool River in the past are now largely absent. Many reaches rely heavily on the delivery of passing flows and environmental releases to remain capable of supporting their biodiversity.

A system providing annual adjustments to bulk entitlements amounts, particularly in times of low inflows, should be explored. They will be imperative to tackling the challenges of climate change for the Moorabool River.

There will also need to be flexibility incorporated into passing flow regimes were 'water banking' opportunities could be utilised to achieve better environmental outcomes.

### Note:

The use of recycled water to sustain flows in the rivers in our region remains problematic. It is our understanding that the Leigh River which carries recycled water from the Western Treatment plant has up to a third less instream species than the Moorabool River, despite the latter being hugely flow stressed.

Whether this is the result of nutrient levels, salinity, a constant flow regime or other chemical impacts is unknown. Our position is that no recycled water be used to increase flows within the Moorabool River. Recycled water should be utilised for potable water substitution, which would allow more water to be left in our most overallocated river.

# Conclusion

PALM would like to thank you and your team for the opportunity to engage in the review of the CRSWS. We hope our submission contributes to a strong and substantial document that builds on the past achievements of the original CRSWS.

Kind regards,

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