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## Goulburn to Murray Trade Rule Review Regulatory Impact Statement Submission on behalf of the joint government Living Murray Initiative

We thank the Victorian Department of Environment, Land, Water and Planning for the opportunity to comment on the Regulatory Impact Statement and supporting documents to help ensure the Goulburn to Murray trade rule review supports environmental values in the lower Goulburn River and across the broader southern connected basin.

### Submission Context

This submission is prepared within the context of Murray-Darling Basin Authority's delegations under section 18H of the *Water Act 2007* to manage the environmental water portfolio of the Living Murray (TLM) Initiative (see background in Attachment).

Joint governments have recognised the significance of the long-standing TLM program of water and works as a key part of realising Basin Plan and environmental outcomes when implementing the SDL adjustment mechanism. The TLM program is included in the package of SDL supply measures, with further works at icon sites proposed to come online by 2024. Effective use of TLM water and operation of works are a key part of achieving SDL adjustment outcomes for all southern basin governments.

After eighteen years of work towards recovering water and operating works, the TLM Initiative is maturing, demonstrating tangible on-ground river health outcomes, and making a return on ongoing joint government investment. It is important that the environmental outcomes being supported through this joint government Initiative are not inadvertently compromised through new operational limitations introduced through the Goulburn to Murray trade rule.

### Summary

As program manager for the Living Murray Initiative, we are supportive of the Goulburn to Murray trade rule review's intent to help limit the impacts from the delivery of operational water on environmental values within the Goulburn River System. We recognise that this work is intended to limit erosion and bank damage from unseasonal summer and autumn high flows primarily due to the pressures of delivering inter-valley transfers (IVTs).

The proposed operational limits on IVT between November and April, alongside an associated monitoring program and review point in 2024, is supported to assist with the recovery of the banks and vegetation in the lower Goulburn River with the following important qualification: **Any operating rule implemented should only apply to the delivery of IVT water which is the primary contributor to recent bank damage in the lower Goulburn River. The operating rule should not be applied to the delivery of environmental water, which scientific monitoring has demonstrated is repairing, not damaging the banks of the lower Goulburn River.**

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Environmental water delivery needs to remain adaptable and flexible to maximise environmental outcomes across the range of potential scenarios that could eventuate within a year. A new operational restriction on the delivery of environmental water in the Goulburn River over November to April would limit environmental outcomes in the Goulburn System and across the broader southern connected basin, including for the nationally and internationally significant TLM icon sites in Victoria and downstream (see specific examples and supporting evidence in the Attachment).

The second issue we note is that the proposed operating rule will encourage extra IVT delivery earlier in winter-spring relative to current operations. This is expected to result in increased channel capacity competition in the lower Goulburn between IVT and environmental water delivery in winter-spring, the peak season for environmental water delivery. Further analysis should be done in the RIS to help understand the long-term impacts of changing the pattern of IVT on water for the environment delivery and implications for the volume of return flows available in the Murray.

To mitigate the potential impact on channel capacity access for environmental water delivery while still supporting a broader spread of IVT delivery, **we encourage Victoria to work with diverters to relocate in-channel pump infrastructure in the lower Goulburn River up to the current operating limit of 9,500 ML/d, or the bank-full flow rate being considered by Victoria as part of relaxing constraints, rather than the 6,000 ML/day level identified in the RIS. Relocating this infrastructure will enable longer duration events in spring which will support environmental outcomes for the Goulburn whilst minimising channel capacity competition between IVT and environmental water.**

As manager of the Living Murray, we would also welcome an opportunity to consider how best to contemporise arrangements for the TLM Victorian entitlements in line with other products held in the Goulburn. This would be of benefit to VEWH, TLM and the Southern Connected Basin Environmental Watering Committee to streamline arrangements and limit risks to the effective delivery of TLM water to meet ecological objectives in Victoria and the broader southern connected basin.

Should you wish to discuss this submission further, please contact MDBA as the program manager of the joint government Living Murray Initiative.

Kind regards,

**Dr Janet Pritchard**  
Senior Director  
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River Management

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# Attachment: Supporting evidence for the key issues raised by this submission

## Background to TLM

TLM is a joint initiative under the *Murray Darling Basin Agreement* funded by the New South Wales, Victorian, South Australian and Commonwealth governments to improve the health of key Murray sites of international and community significance. Since 2003 partner governments have invested over \$1 billion in water recovery and water management infrastructure to deliver water to iconic sites of high ecological, community and cultural significance in the Murray system.

The program is coordinated and delivered by the Murray-Darling Basin Authority on behalf of joint governments. The Southern Connected Basin Environmental Watering Committee (SCBEWC) is the multi-jurisdictional group responsible for making consensus decisions on the use of TLM water, with MDBA managing the program to support the decisions of SCBEWC. Both VEWB and DELWP are members of SCBEWC.

Delivery of TLM water in the Goulburn is co-ordinated with other environmental water holders with the Victorian Environmental Water Holder responsible for formally committing TLM water, placing water orders, and authorising the waterway manager (Goulburn Murray Water) to implement watering decisions. How and when environmental water is delivered in the Goulburn system is informed by the Victorian seasonal watering proposals developed by the Goulburn Broken Catchment Management Authority (GBCMA), SCBEWC coordinated annual planning across environmental water holders, and annual environmental watering priorities as part of the Basin Plan.

Holdings of environmental water in the Goulburn are a significant component of the total TLM joint government water holdings (45.2 GL of High Reliability and 157 GL of Low Reliability holdings, out of a total portfolio of 597.5 GL of entitlements (not including unregulated holdings)).

Much of the TLM water in the Goulburn is held on the TLM Environmental Entitlement which is clear that TLM water is to be delivered from the Goulburn River in a way that does not harm Victorian tributaries. Further the TLM water associated with the Environmental Entitlement must be delivered from the Goulburn, trading allocations out is not currently an option as it would be for other entitlement holders. This means that annual planning and delivery of TLM water in the Goulburn River is undertaken to support the environmental values of the Goulburn channel aligned with benefits to downstream iconic sites such as the River Murray channel, Gunbower, Hattah, Lindsay-Mulcra-Walpolla, Chowilla, and the Coorong and Lower Lakes.

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## Applying the proposed operating rule to environmental water deliveries could compromise the achievement of other environmental outcomes in the Goulburn and downstream

The proposed operating rule within the RIS notes that environmental water may be delivered on top of prescribed limits from May to October, but that from November to April environmental water will be subject to the same limits as operational flows (which largely comprise IVT over this period).

From recent patterns of environmental water use, the proposed operating rule will restrict opportunities to deliver TLM environmental water over November to April to enhance environmental values within the Goulburn River and broader River Murray System.

The following examples are provided to show the types of responsive environmental water delivery that would be limited by applying the prescribed November to April limits of the proposed operating rule:

- In November 2020 there was a spring pulse higher than the proposed prescribed limits, delivered to support the Goulburn seasonal watering plan objective to promote native fish spawning and recruitment in the Goulburn River (golden perch). The Goulburn Broken Catchment Management Authority supported this delivery based on the event aligning with the seasonal watering plan priority objectives for wet conditions and the fact that the river banks had been inundated for much of winter-spring as part of natural tributary inflows, and that drying to support vegetation regrowth would be supported by the lower summer flows.
- Over summer 2017-18 there were releases of water for the environment on the back of unregulated flow peaks (higher than the proposed prescribed limits) to mitigate a rapidly dropping river level in the lower Goulburn River. Rapid drops in high flows can also result in increased erosion and bank failure. It would be somewhat perverse to introduce an operating rule to limit bank damage, but then not be able to deliver environmental water to slow the recession of high flows to limit vegetation and bank damage.
- Summer is a period of low dissolved oxygen risk for the Goulburn and downstream River Murray and additional environmental water releases can be a management response to provide refuge habitat to mitigate against native fish deaths. Note that in these scenarios, the flexibility of being able to deliver held environmental water alongside or instead of the Goulburn water quality reserve means that a greater volume of water is available to help mitigate risks for native fish deaths and other water quality issues, especially in the River Murray where the Goulburn water quality reserve is not intended to be used.
- In April 2017 an autumn fish pulse was delivered (flow of up to 6,000 ML/d), which was coordinated with an environmental flow event in the Murray to stimulate native fish to move and relocate into the lower reaches of the Goulburn.

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We recognise the strength of the Victorian environmental watering program, built on an ongoing collaborative management approach, where there are regional processes in place for the development of seasonal water proposals that build into a plan for the delivery of water for the environment in the Goulburn River System and other catchments. These processes provide a strong adaptive management framework to ensure delivery of water for the environment is based on the latest science (including on-ground monitoring results) and informed by local management, monitoring programs, community, and cultural insights. This information is also effectively fed in and considered as part of the SCBEWC coordinated annual planning process across the southern basin.

Our major concern is that the proposed operating rule could fetter existing flexibility and responsiveness of TLM water use with subsequent consequences for achieving the outcomes that joint governments intended.

## The proposed operational limits are expected to lead to enhanced channel capacity competition between environmental water and IVT in winter-spring.

Increased IVT delivery in winter-spring has the potential to reduce the amount of environmental water that can be used to meet the planned delivery hydrographs in the Goulburn River. Based on the information provided, the average IVT delivery over this period could increase from 40 GL to about 80 GL during winter-spring under the new trade and operating rules. This will increase channel capacity competition as this is a key window for environmental water delivery in line with natural seasonal cues and environmental requirements for higher flows.

The shifting of IVT demand earlier into the winter-spring period poses a risk for channel capacity competition. Making space for IVT earlier in the season is likely to result in less space for environmental water deliveries in the Goulburn and reduced return flows available to be used at multiple sites along the Murray. This can impact the ability to support environmental water deliveries to downstream TLM icon sites (including Victorian Ramsar sites and other wetlands of significance) and to support the environmental outcomes for the River Murray Channel and end of system flows as described in the Basin-wide Environmental Watering Strategy and NSW and SA Long Term Environmental Watering Plans. The proposed operating rule has implications beyond the Goulburn River, and we encourage Victoria to consider the system-wide operating context in which this rule will operate.

As an example, in 2017-18, delivery of water for the environment from the Goulburn River was important to support several downstream TLM icon site watering events. Between July and October 2017 there was more than 250 GL delivered from the Goulburn into the River Murray as part of

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winter and spring environmental pulses and elevated baseflows on top of the minimum passing flows. Of the Goulburn environmental water that passed into the River Murray:

- 74.6 GL was used for a Hattah Lakes TLM icon site watering event (representing 66% of the water delivered to the site). This watering event capitalised on the lakes' high level following the 2016 flooding to inundate higher parts of the site to help with recovery of black box trees, some of which had not been inundated since the 1990s. This was the largest delivery of water for the environment at Hattah Lakes since the TLM infrastructure was completed with the contribution of the Goulburn River a key input to the success of the event.
- 1.5 GL was used for a Lake Wallawalla watering event (at the Lindsay-Mulcra-Wallpolla TLM icon site (representing 19% of the water delivered to the site). The watering event helped enable recruitment of trees and support the growth of understory species, river red gum and black box to support the continuing recovery of vegetation condition at the site.
- 176 GL was delivered to South Australia supporting connectivity all the way through the system and environmental outcomes at the Ramsar listed Coorong and Lower Lakes. The Goulburn River winter fresh was pivotal in delivering a winter pulse into the Coorong to trigger upstream migration of more than 50 pouched lamprey into the Murray. The Goulburn spring flows continued to support a range of environmental outcomes for the Coorong and Lower Lakes over spring and into summer. This included inundating fringing lake wetlands, important for threatened fish species, enabling continuing barrage releases to support fish movement and breeding cycles between the Coorong and Lower Lakes, and helped set up conditions for a successful black bream breeding event in summer (the largest since 2009).

To mitigate risks of increased channel capacity competition from earlier IVT delivery, DELWP are encouraged to consider increasing the current proposal of relocating private in-channel pump infrastructure from 6,000 ML/day up to at least the current operating limit of 9,500 ML/d in the Lower Goulburn, if not the bank-full flow rate being considered by Victoria as part of relaxing constraints. Moving pumps up to this flow rate will provide greater flexibility for managed releases to be delivered in a pattern that maximises environmental outcomes in the Lower Goulburn across winter-spring while still allowing a broader spread of the timing of delivery of IVT to reduce summer pressures and bank damage risks.

Whilst we do not envisage IVT to be delivered at rates above 6,000 ML/day, working with landholders to move irrigation pumps to better cope with variable river flows up to at least 9,500 ML/d could help to mitigate the risks imposed on environmental water delivery from increased early-season IVT deliveries, and will also contribute to the capacity for improved environmental outcomes in the Lower Goulburn and downstream River Murray System.

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