



## Environment Victoria submission to the Murray-Darling Basin Royal Commission

Environment Victoria is the state's peak non-government, not-for-profit environment organisation. Our Healthy Rivers Campaign is dedicated to working with government, communities and business for the restoration and protection of our state's great river systems. Our vision is for a future where healthy rivers sustain abundant life and prosperous communities, providing us with good food, clean water and places to love and enjoy.

We have campaigned for increased flows in northern Victoria's rivers for 15 years and have been following the development and implementation of the Murray-Darling Basin Plan since 2007. Environment Victoria holds the position that the Plan should be implemented as agreed on time and in full, with the recovery of the full volume of environmental water, that is 3,200 GL, by 2024.

However water recovery has slowed dramatically in recent years and is currently stalled at 2,106 GL, just under two thirds of the total. We are deeply concerned that without more support for real water flowing through the rivers of the Basin, nourishing rivers and floodplains and exporting salt from the system, the Plan will fail to meet its objectives both for the environment and for water-dependent communities of all types, from fish to farmers.

The fact that there is a problem of over-allocation and river degradation to be solved is in danger of being forgotten in the rush to cut water recovery targets and 'protect' communities. In fact the best protection for communities in the long-term is a plan that meets its environmental objectives and provides long-term security for water users in a future with less water. A fully implemented Basin Plan is our best chance of achieving that.

We welcome the current Royal Commission and the opportunity to make a submission. WE provide detailed comments on the Commission's areas of focus in the body of this submission.

The following dot points provide a snap-shot of our key issues of concern for the Basin Plan:

- The protection of environmental flows is of utmost importance. There is no substitute for water actually flowing down a river. This is critical for both water quality and salt export. Downstream extraction of environmental flows is a travesty of water management, and compromises the integrity of the Basin Plan.
- Projects currently proposed for the Sustainable Diversion Limits adjustment fail key tests and should not proceed in their current form. The Water Act should be amended to include in law the tests put forward by the Wentworth Group of Concerned Scientists. Delaying implementation of the SDLs is a small price to pay for a well-designed and effective adjustment that meets its objective of 'increased environmental outcomes'.
- Infrastructure has been the preferred approach to water recovery, despite buybacks being much better value for money and more efficient. The fact that previous buyback tenders were all over-subscribed shows there is still untapped potential water recovery by this means.



- Despite significant investment in irrigation modernisation, a large percentage of irrigation channels still supply very small volumes of water. Rationalisation of these inefficient channels could deliver significant gains and result in less reliance on on-farm efficiency measures. Efficiency measures that reduce return flows should be avoided, and where that is not possible, any reduction in return flows must be accounted for and deducted from the water savings.
- Constraints in the system need to be addressed. Actual constraints, and community concern about the impacts of minor flooding events, represent a major barrier to restoring river health. There are numerous benefits from removing constraints, and ample opportunities to build community support and accelerate this work, but jurisdictions have been slow to act.
- There has been a near total failure to even try to assess socio-economic benefits of having more water in rivers. All assessments of the impact of the 450 GL of upwater focus almost exclusively on the negative impacts on irrigators but largely ignore sectors other than irrigation. Healthy rivers provide many other social and economic benefits across the Basin, particularly in the tourism industry and for recreation and well-being.
- There is an urgent need for a Commonwealth judicial inquiry into potential corruption within the management of the Basin Plan and into possible undue influence of vested interests on government policy and actions.

## Detailed comments on the Royal Commission's areas of focus

### a) Process to determine ESLT

Early work by the MDBA identified 106 hydrologic indicator sites across the Basin - 88 sites for ensuring key ecosystem functions and 18 sites for key environmental assets. The Authority then identified a range of flow regimes to support the key ecosystem functions and environmental assets at each of the ecological indicator sites and converted the flow requirements into catchment scale volumes of environmental water.

After a significant period of peer review and checking if their conclusions met the requirements of the Commonwealth Water Act to give effect to international agreements, the MDBA concluded that the 'required range of total additional environmental water is between 3,000GL/year and 7,600GL/year'.<sup>1</sup>

Consideration of the potential social and economic impacts of large volumes of environmental water recovery lead the Authority to reduce its aspirations and state that 'the Authority has judged that only with reductions in current diversion limits in the range of 3,000-4,000 GI/year can it optimise social, economic and environmental outcomes, as it is required to do under the Water Act.'<sup>2</sup>

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<sup>1</sup> MDBA (2010) Guide to the proposed Basin Plan, p73

<sup>2</sup> Ibid p 100



An environmentally sustainable level of take (ESLT) is defined in the Water Act as ‘the level at which water can be taken from a water resource area, which if exceeded would compromise:

- (a) key environmental assets of the water resource; or
- (b) key ecosystem functions of the water resource; or
- (c) the productive base of the water resource; or
- (d) key environmental outcomes of the water resource.’<sup>3</sup>

The MDBA was already making compromises before it even started the formal determination of ESLT.

Heavy political pressure following the release of the ‘Guide to the proposed Basin Plan’ resulted in the MDBA proposing an ESLT of 10,873GL/year, representing a water recovery target of 2,750 GL. This volume does not meet Water Act requirements for key environmental assets and functions, as only 11 out of 18 for ‘actively managed’ (a restricted subset of the hydrologic indicators) environmental flow indicators for the River Murray can be achieved. The only scenario considered by the MDBA that approaches a Water Act compliant version of ESLT is the ‘3200GL relaxed constraints’ scenario where 17 out of 18 indicators are met.

Scenario	Baseline	BP-2800	BP-2800-RC	BP-3200	BP-3200-RC
Number of flow indicators achieved	0/18 (0%)	11/18(61%)	11/18(61%)	13/18 (72%)	17/18 (94%)

*Achievement of ‘actively managed’ river channel and floodplain environmental flow indicators on the River Murray for the baseline and Basin Plan scenarios. RC = relaxed constraints.*<sup>4</sup>

Given the extreme resistance of jurisdictions to managing constraints and achieving the 450 GL of ‘upwater’, the scenario in which 17 out of 18 indicators are satisfied is unlikely to be met and an ESLT as defined in the Water Act will not be achieved.

A further issue with ESLT as calculated by the MDBA is that it makes no allowance for reduced water availability due to climate change. The MDBA assumed that the historical record provided an adequate guide to future conditions, but climate change scenarios suggest otherwise. The overwhelming body of evidence indicate a permanent reduction in rainfall, particularly over the cooler months, and a reduction in inflows.<sup>5</sup> What may have been sustainable in 2012 will not be sustainable in future.

A proposed amendment to the Basin Plan currently before the Senate intends to reduce the water recovery target by 605 GL and consequently increases the ESLT to 11,478 GL. To the best of Environment Victoria’s knowledge, the MDBA has not carried out any checks as to whether this figure still represents an environmentally sustainable level of take as defined in the Water Act. The change has been considered through the operation of the Sustainable Diversion Limit Adjustment mechanism using the environmental equivalence methodology, but has not (as far as we are aware) been checked back against the original ESLT determination.

<sup>3</sup> Commonwealth Water Act 2007, s4

<sup>4</sup> MDBA (2012) Hydrologic modelling of the relaxation of operational constraints in the southern connected basin.

<sup>5</sup> <https://www.climatechangeinaustralia.gov.au/en/>



The Water Act also requires the Basin Plan to ‘promote the conservation of declared Ramsar wetlands in the Murray-Darling Basin’.<sup>6</sup> Recent revelations about the dire state of the south lagoon in the Coorong where migratory shore birds are starving to death<sup>7</sup> suggest that the plan is failing in this objective.

#### b) Supply measures

The Wentworth Group of Concerned Scientists has conducted a detailed assessment of the 37 projects proposed for SDL adjustment. They developed a set of 12 conditions based on Basin Plan requirements that the projects need to meet to honour the Prime Minister’s and COAG’s commitments to implementing the Plan ‘on time and in full’. Their assessment showed that:

“1. Only one project, the *South Australian Murray Key Focus Area* meets the necessary conditions for approval. Approval of this project for SDL adjustment is however, contingent on upstream constraints proposals meeting targets in the Constraints Management Strategy.

2. Eleven of the projects (representing in the order of 150-270 GL water savings) require additional information before a proper assessment can be undertaken. With such information it might be possible for some or all of the projects to satisfy the 12 conditions for approval. However, all projects would need to ensure there is no significant change in environmental flows reaching the Lower Lakes and Coorong (Condition 3).

3. Twenty five projects (representing in the order of 316-436 GL) do not satisfy these conditions and should not be approved in their current form. This includes The Living Murray works which, although they are able to be considered for an SDL adjustment, they are not likely to result in equivalent environmental outcomes because of the environmental risks identified.”<sup>8</sup>

Many of the environmental risks identified relate to water quality and salinity impacts of works projects, some of which may require the use of environmental water to mitigate the risk of blackwater events and raised salinity as a result of the operation of the projects. Should this situation arise it would require a further adjustment of the SDL to provide more environmental water.

The Wentworth Group further concludes that many of the projects have unknown or unacceptable governance arrangements and some of the Victorian works projects do not represent value for money, being more expensive than the \$1900/ML offset agreed by jurisdictions.<sup>9</sup>

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<sup>6</sup> Commonwealth Water Act 2007, s21(2)(b)

<sup>7</sup> <http://www.abc.net.au/news/2018-04-27/coorong-murray-darling-basin-how-to-kill-a-river-system/9698108>

<sup>8</sup> Wentworth Group of Concerned Scientists (2017) Assessment of projects proposed for SDL adjustment.

<sup>9</sup> Intergovernmental Agreement on Implementing water reform in the Murray-Darling Basin



Jurisdictions and the MDBA need to work together to ensure that all SDL offset projects meet the 12 Wentworth Group conditions before they are considered for inclusion in an SDL adjustment. One way to achieve this would be to amend the Commonwealth Water Act to include the 12 conditions for approval in legislation as part of the assessment of any proposed adjustment project.

Environment Victoria recommends the following steps are taken to ensure a successful SDL adjustment and the achievement of water recovery targets:

1. The Commonwealth withdraws the current proposed amendment to the Basin Plan prior to the Senate voting on the disallowance motion
2. The Commonwealth leads negotiations with the federal ALP and others to establish bi-partisan support for amendments to the Commonwealth Water Act 2007
3. Federal Parliament amends the Water Act to legislate more robust criteria for downwater projects, to ensure thorough assessment and compliance with all Water Act and Basin Plan requirements, using the Wentworth Group conditions as a guide
4. Basin states and the Commonwealth work together to ensure proposed downwater projects meet the new criteria and to develop constraints and upwater projects
5. The Minister tables a revised SDL adjustment amendment in federal Parliament with improved downwater projects, constraints management and additional projects to deliver the 450GL of upwater.

#### c) Recovery of 450 GL for enhanced environmental outcomes

‘Upwater’ – the final 450 GL for enhanced environmental outcomes – is as much a part of the Basin Plan as the ‘downwater’. The SDL adjustment mechanism is intended to operate in both directions: upwater to achieve the same socio-economic outcomes using less consumptive water (meaning more water in rivers and better environmental outcomes); and downwater to achieve the same environmental outcomes with less water in the river system (meaning more water for consumptive use).<sup>10</sup>

However, efforts to increase environmental water recovery and achieve the upwater have always been far more contentious than the downwater and reduced water recovery targets. Many have claimed that it is a late addition to the Basin Plan, only of value to South Australia and therefore expendable. In fact improved outcomes of the 450 GL ‘upwater’ are an essential part of the Basin Plan.

A number of critical environmental outcomes are only possible with the 450 GL of upwater: keeping the Murray Mouth open in 95% of years; exporting 2 million tonnes of salt per annum from the system; improving the health of forests and fish and bird habitat and connection to groundwater in Victoria, NSW and South Australia; reducing salinity in the Coorong in South Australia. Both the Federal Water Minister and the Assistant Water Minister acknowledge the 450 GL of upwater as integral to the Plan.

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<sup>10</sup>Murray-Darling Basin Plan s 7.09



Ernst & Young concluded in their 2017 analysis of efficiency measures that “there is sufficient evidence the 450 GL can likely be recovered from water efficiency projects on a neutral or positive socio-economic basis”. They identified up to 692 GL worth of potential projects across the Basin.

EY do not provide much detail on how the upwater is to be achieved. Environment Victoria makes the following suggestions:

- Some of the upwater could be achieved through buyback of small parcels of water from willing sellers. Even with the 1500 GL cap on buybacks in place, up to 275 GL could be achieved by these means.
- Goulburn-Murray Water (GMW) is Victoria’s largest rural water corporation with 25,000 customers, over 6,500 km of irrigation channels and around 70% of Victoria’s stored water under its management. It is also delivering the GM Connections Project, the largest irrigation upgrade in Australia’s history, with \$2billion of investment by the Commonwealth and Victorian governments.<sup>11</sup>

However there are serious concerns about GMW’s long-term ability to deliver reliable and affordable water to its customers.<sup>12</sup> A recent analysis of meter usage and channel data showed that 80% of GMW’s channels delivered less than 500 ML during the 2017 irrigation season, and accounted for only 18% of total deliveries. A third of these channels delivered less than 50ML. In contrast, 20% of channels delivered 500 ML or more during the season. These 20% of channels accounted for more than 82% of total deliveries in 2017.<sup>13</sup>

The Strategic Advisory Panel that undertook the analysis notes that there is potential to reduce GMW’s irrigation footprint by negotiating with landholders on underutilised channels. They also note that rationalising these channels (decommissioning or providing a lower level of service at a lower price) would not have a major impact on revenue nor would exit fees be excessive, and that there was little rationale for modernising underutilised assets.<sup>14</sup>

In other words the Connections Project has not yet reached its potential and there is still a genuine need and a golden opportunity to rationalise the channel system to make it viable into the future. Rationalisation would generate water savings, estimated by EY as up to 239 GL,<sup>15</sup> that could provide a very significant contribution to achieving the 450 GL upwater in addition to as yet unquantified social and economic benefits. It would also secure the future viability of GMW by reducing its liabilities and upkeep expenditure.

- Other neglected opportunities exist. In 2009 CSIRO devised a method for determining which areas are best suited to irrigation. Its ‘traffic lights’ approach looked at soil, environmental and location characteristics to assign land in irrigation areas to three planning zones – green for sustainable irrigation, amber for environmental restoration including biodiversity and

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<sup>11</sup> GMW Annual report 2016/17

<sup>12</sup> <https://www.premier.vic.gov.au/blueprint-for-transforming-goulburn-murray-water/>

<sup>13</sup> Goulburn-Murray Water Review (Jan 2018) Strategic Advisory Panel.

<sup>14</sup> Ibid p7

<sup>15</sup> Ernst & Young (2018) Analysis of Efficiency Measures in the Murray-Darling Basin: Opportunities to recover 450GL in additional environmental water through efficiency measures by 2024 with neutral or positive socio-economic impacts



carbon plantings and rural amenity, and red for transition to dryland agriculture.<sup>16</sup> A pilot study in the Torrumbarry Irrigation Area showed that applying the approach would increase agricultural profitability by 24%, reduce the cost of running the irrigation system and return around 20% of the water used ( 60 GL) to the environment. In addition stopping irrigation in the red zones would reduce salinity and save about \$50 million in salinity mitigation costs over the next 30 years. Rational planning provides multiple benefits. However no government has been willing to implement the system in its entirety so the benefits are yet to be realised.

- In another example, Kow Swamp, a small storage in northern Victoria, was identified as a potential source of water savings back in 2007. It loses approx 35 GL per year to evaporation, about the same volume that the City of Bendigo consumes.<sup>17</sup> To date no serious consideration has been given as to whether these losses could be reduced and Kow Swamp returned to a more natural condition. Other similar opportunities exist across the Basin.

#### d) Water recovery to date

The Australian government's 1500 GL cap on water purchases is a severe limitation on the cost effectiveness of water recovery. The Productivity Commission has commented many times on the cost effectiveness of water purchases as a means of water recovery, most recently in its report on National Water Reform:

'The purchase of water entitlements from irrigators is an equitable and efficient response to the structural change arising from the recovery of water for the environment. Sales are voluntary and the use of market mechanisms ensures a reasonably consistent treatment of irrigators and supports an efficient allocation of water resources'.<sup>18</sup>

The *Restoring the Balance* water purchase program has been quite transparent with readily available information on the volumes and reliability of water recovered and the average cost of the entitlements. 1186.7 GL (65%) of the 1826.2 GL recovered to date and now in the hands of the CEWH and achieving environmental outcomes has been achieved through this program.<sup>19</sup> Economic analysis by the Productivity Commission<sup>20</sup> and others has demonstrated the cost-effectiveness of buybacks and their popularity with irrigators has been confirmed, with many participants suggesting they would repeat the process.<sup>21</sup> Every buyback tender in the southern Basin was oversubscribed.

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<sup>16</sup> Crossman, N, Connor, J, Bryan, B, Summers, D and J. Ginnivan (2009) *Reconfiguring an irrigation landscape to improve provision of ecosystem services*, Socio-Economics and the Environment in Discussion, CSIRO Working Paper Series 2009-07, CSIRO <http://www.csiro.au/files/files/pqha.pdf>

<sup>17</sup> <https://www.theage.com.au/news/in-depth/the-turning-point/2007/02/22/1171733950536.html?page=fullpage#contentSwap2>

<sup>18</sup> Productivity Commission (2017) Draft Report on National Water Reform p423

<sup>19</sup> <http://www.agriculture.gov.au/water/mdb/progress-recovery/registered-water-recovery>

<sup>20</sup> Productivity Commission Research Report (2010) Market Mechanisms for Recovering Water in the Murray-Darling Basin

<sup>21</sup> Marsden Jacobs (2012) Survey of water entitlement sellers under the *Restoring the Balance in the Murray-Darling Basin* program



This program is in strong contrast to recent Commonwealth ‘targeted’ purchases at Tandou station near Menindee (where the government paid double the market value as determined by the government’s own valuer<sup>22</sup>) and the Condamine-Balonne in Queensland, (where the government paid well over market value for highly unreliable water).<sup>23</sup> These purchases, which were undertaken without an open tender, lack transparency, do not appear to be subject to due diligence and represent highly questionable value for money. In addition the reliability of the water is so low that is questionable when if ever it will be available for environmental use and whether it is able to be used to meet Basin Plan objectives. The Tandou purchase was made to facilitate the highly controversial Menindee Lakes supply measure, for which no business case has been publically released.<sup>24</sup> No justification for the high purchase price has been provided and the local community remains deeply concerned about the purchase, the Menindee Lakes project and the related Broken Hill pipeline.

The Australian Government has consistently favoured infrastructure projects as a means of water recovery in recent years despite these being significantly more expensive.<sup>25</sup> Much of the ‘low hanging fruit’ has already been achieved and the cost multiplier compared to water purchase is increasing. There are also serious doubts about the equity and benefits of on-farm water efficiency programs. The Productivity Commission recently stated:

‘Water efficiency programs have been beneficial for irrigators but have arguably delivered less equitable outcomes than water purchases. For example, irrigators who had earlier spent their own money on improving water efficiency on their properties did not have viable water saving proposals to advance for funding. Others who had not made these investments could pursue government grant funding. The gains for some of these irrigators are expected to be significant with DAWR forecasting a 135 per cent increase in pre-tax profits for large cotton farmers in Trangie participating in the Private Irrigation Infrastructure Operators Program.’<sup>26</sup>

The level of transparency afforded by buybacks is not available for SRWUIP infrastructure projects with ‘commercial in confidence’ often cited as the reason for not making details publicly available. The projects often take several years to plan and construct and the public has little information to go on after the initial announcement. The actual volume and reliability of the entitlements created from these projects is not known until well after the project is complete.

Infrastructure projects both on and off-farm are also subject to difficulties and uncertainties. Off-farm projects such as the GM Connections Project require auditing before savings can be calculated and handed over to the CEWH. The most recent audit concludes that savings of 231 GL have been achieved against a target of 429 GL by 2020, suggesting that much work remains to be done for the project to deliver in full. The majority of savings to date were achieved through service point replacement and rationalisation, with a staggering 88 GL in savings attributed to meter error.<sup>27</sup> How

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<sup>22</sup> <https://www.theguardian.com/australia-news/2017/oct/27/government-likely-to-have-bought-ghost-water-in-78m-deal>

<sup>23</sup> <https://www.theguardian.com/environment/2018/mar/21/australian-governments-water-buyback-displayed-pythonesque-haggling-skills>

<sup>24</sup> <https://www.theguardian.com/environment/2018/apr/11/the-menindee-lakes-project-who-loses-and-who-really-wins>

<sup>25</sup> Commonwealth of Australia (2014) Water Recovery Strategy for the Murray-Darling Basin

<sup>26</sup> Productivity Commission (2017) op cit

<sup>27</sup> Cardno (2017) Audit of Irrigation Modernisation Water Recovery 2016/17 Irrigation Season



much of that water is indeed a true saving is unknown as some of that water would have returned from paddocks and irrigation bays to the rivers, wetlands and aquifers.

The same issue of failing to account for return flows has been repeatedly raised in connection with on-farm efficiency projects, most recently by a group of respected scientists and economists in the Murray-Darling Declaration.<sup>28</sup> Efficiency measures that reduce return flows should be avoided, and where that is not possible, any reduction in return flows must be accounted for and deducted from the water savings.

#### e) Northern basin review

The 'toolkit' measures proposed by MDBA to improve environmental outcomes in the northern basin do not require an amendment to the Basin Plan in order to be implemented. They are subject to a separate intergovernmental agreement between NSW, Queensland and the Commonwealth and can proceed irrespective of any disallowance motion in the Senate. Environment Victoria recommends they can be implemented as soon as possible, particularly with regard to the protection of environmental flows from downstream extraction.

Flood plain harvesting is a common practice in the northern basin that currently sits outside the licencing framework. It involves the capture of floodwater as it overflows from creeks and rivers and flows across the floodplain, and its diversion into private storages for future use for irrigation. The NSW government is in the process of quantifying these flows with a view to converting currently unregulated and unmetered diversions into a new form of licence or tradeable property right. The volumes are very large, with 614 GL identified as eligible for new licenses in the Gwydir catchment and 211 GL in the Border Rivers, and far in excess of the 210GL across the entire northern basin that was used to estimate the baseline diversion limits for the Basin Plan. The process currently underway is an opportunity to recover the 70 GL required to meet the SDLs in the northern basin and remove any need for an amendment to the Basin Plan.<sup>29</sup> Converting a portion of the currently unlicensed floodplain flows into environmental entitlements would be cost free and have no impact on other licenced diversions.

#### f) Views of Indigenous People

Environment Victoria supports the vision put forward by the Elders and Community Leaders of the Murray Lower Darling River Indigenous Nations (MLDRIN). This vision is for naturally flowing rivers, recognised as living entities, connected from the headwaters, across the floodplain and out to the Southern Ocean. We aspire to see all Nations nurturing the values and enjoying benefits of healthy water and Country, in an interconnected Basin.

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<sup>28</sup> <https://theconversation.com/the-murray-darling-basin-plan-is-not-delivering-theres-no-more-time-to-waste-91076>

<sup>29</sup> See Inland Rivers Network submission to Productivity Commission assessment of the Murray-Darling Basin Plan for details



### g) Illegal take

Following the ABC Four Corners program 'Pumped', which aired on 24 July 2017, there have been numerous inquiries into compliance that have made important and useful recommendations. All jurisdictions and the MDBA are intending to do better, and Victoria is proposing legislative amendments to improve its compliance regime and increase penalties for unauthorised water use.<sup>30</sup>

It is too early to assess the benefits of these changes as many are yet to come into force.

However there remain unresolved issues of alleged corruption and undue influence over water management in general and Basin Plan implementation in particular. Immediately after the Four Corners report, former NSW water Minister Kevin Humphries and senior bureaucrat Gavin Hanlon were referred to ICAC for investigation, the results of which are not yet known.<sup>31</sup> There have also been suggestions of undue irrigator influence in the development of the Barwon-Darling Water Sharing Plan in 2012 and retrospective approval of illegal floodplain harvesting works by the current NSW Water Minister.<sup>32</sup>

Similar allegations have been made in Queensland and criminal proceedings are underway.<sup>33</sup>

This Royal Commission into the Murray-Darling has wide terms of reference but nothing specific about the influence of vested interests or corruption. Only a Commonwealth judicial inquiry would have adequate powers to establish whether water sharing rules across the basin favour particular interests and the extent to which vested interests are driving government policy and action.

### h) Irrigated crops

A key criticism of the Basin Plan is that environmental water recovery is driving up water prices for irrigators. In fact water prices in both the allocations and the entitlement markets are subject to the laws of supply and demand, and are principally driven by weather conditions and market conditions. Respected water consultant Aither, which has been reviewing water markets annually since 2013, made the following comments about market drivers in its most recent report:

'The amount of water allocated to entitlement holders each year is the key driver of allocation market outcomes (including prices and volumes traded), because it strongly influences the total amount of water available for use or trade. When allocations are low, water is scarce and prices are high, and the opposite is true when allocations are high. Allocation levels reflect broader water availability including rainfall and inflows in relevant catchments, and volumes held in storages. Other key drivers in allocation markets include conditions in markets for irrigated agricultural products, and conditions in substitute markets.'<sup>34</sup>

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<sup>30</sup> Victorian government (in prep) Water Amendment Bill 2018

<sup>31</sup> <https://www.smh.com.au/environment/nsw-ministers-call-for-urgent-overview-of-water-issues-lame-acf-says-20170725-gxhyb4.html>

<sup>32</sup> <https://www.dailytelegraph.com.au/news/nsw/barwon-darling-water-sharing-plan-minister-niall-blairs-water-woes-continue-with-laws-to-pardon-illegal-flood-works/news-story/4a325b044f05a401bc0251f1d3f9a6dc>

<sup>33</sup> <http://hansard.parliament.vic.gov.au/isysquery/5d4e8b77-4a67-483b-b009-d2ef0986131e/1/doc/>

<sup>34</sup> Aither (2017) Water Markets Report. 2016/17 review and 2017/18 outlook.

And for entitlements:

‘The value (and price) of water entitlements is largely determined by their reliability characteristics, which differ between each entitlement class. Higher reliability entitlements provide greater water allocations over the long-term, and more consistently provide water allocations each year. Generally these two characteristics are linked. Entitlements with high reliability will typically be priced highly.

‘This reflects both high reliability entitlements’ increased allocations and the premium placed on water supply security by industries such as horticulture that cannot afford to experience high variability in supply. In investment terms, entitlement reliability directly influences the likelihood that yields can be achieved in the short and long-term.

‘Trade in entitlements is related to longer-term production decisions and the characteristics of different agricultural enterprises, including their tolerance for risk. Producers who may be expanding or contracting production drive market activity, as do investors or larger scale enterprises that may hold entitlements and facilitate new models of irrigation farming based on trading allocations rather than holding entitlements. Purchase of water on behalf of the environment has also driven market activity in recent years.’<sup>35</sup>

Water recovery under the Basin Plan is an afterthought, not a key driver of water prices. Crop choices and weather conditions are far more important. The distribution and water consumption patterns of different crops will have a significant impact.

#### i) Constitutional basis for the Water Act

Following the disallowance of the Northern Basin amendment, Victoria and NSW threatened to walk away from the Basin Plan. The consequences of such an action could include:

- Refusal to participate in the Murray-Darling Ministerial Council
- Making a declaration that some or all of the Basin Plan/Water Act will not apply in their state
- Refusal to provide Water Resource Plans to the MDBA
- Withdrawing from the Intergovernmental Agreement on Water Reform (IGA) in the MDB.

However, it is important to note the following:

- The Commonwealth can make a regulation overriding any declaration by a State that some or all of the Water Act and/or Basin Plan do not apply;
- The Ministerial Council currently comprises a Minister from each Basin State and the Australian Government. However, there does not appear to be any legal reason why it could not function in the absence of an appointed Minister from one or more State;
- Withdrawing from the IGA could result in the Commonwealth terminating funding for State water projects;

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<sup>35</sup> ibid



- While States are responsible for preparing water resource plans, the *Water Act 2007* allows the Minister to 'step-in' and order the MDBA to make one or more of these plans if any State refuses to do so by the statutory deadline.

This being the case, it is unclear why any State would:

- create widespread uncertainty by making a declaration that could be overridden by the Commonwealth, and which in any case could disadvantage many water users within the State who depend on the sustainable management of water resources;
- choose to absent itself from important negotiations and discussions that occur during Ministerial Council meetings;
- disadvantage itself and its constituents by refusing to participate in the making of water resource plans, which are the most important legal instruments sitting beneath the *Water Act 2007* and Basin Plan; or
- walk away from its share of approximately \$6 billion – the amount of Commonwealth funding left to implement the Basin Plan and to assist communities to adjust to a future with less productive water.<sup>36</sup>

#### j) Darling River and Menindee Lakes

Environment Victoria has been expressing concerns about the Barwon-Darling water sharing plan and lack of shepherding since mid-2016. We published an article in our supporter newsletter, Environment Victoria News, saying "The NSW government has changed the rules for irrigators upstream - cotton growers north of Bourke - allowing them to pump more water out of the river, including environmental water originating from Queensland, and store it in huge private dams, leaving the lower Darling high and dry..... The NSW government must change its rules so that environmental water can get down the Darling, and make it illegal to pump the river dry upstream of Bourke. The current situation is threatening the whole success of the Murray-Darling Basin Plan in restoring the Darling and the Murray Rivers to health."<sup>37</sup>

We also initiated a public petition to State and Federal Water Ministers and the MDBA requesting action to address this.<sup>38</sup> The petition has been signed by over 4,000 people to date. We also met with Minister Neville and DELWP prior to the November 2016 Ministerial Council meeting to express our concern about the lack of shepherding, and circulated a Barwon-Darling factsheet to relevant authorities.

As a result of these activities, the Victorian government assured us that they would consult with other jurisdictions on the issue and discuss it at Ministerial Council. As far as we are aware, the issues have still not been resolved and environmental water continues to be legally extracted from

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<sup>36</sup> See [https://www.edonsw.org.au/northern\\_basin\\_disallowance](https://www.edonsw.org.au/northern_basin_disallowance) for more details of the consequence of state withdrawal.

<sup>37</sup> <https://environmentvictoria.org.au/2016/11/07/environment-victoria-news-issue-26-spring-2016/>

<sup>38</sup> <https://environmentvictoria.org.au/action/save-the-darling/>



the Barwon-Darling for irrigation purposes. The Water Sharing Plan needs to be revised with pre-2012 pumping restrictions restored and shepherding rules put in place.

#### k) Deadline for water resource plans

Water Resource Plans (WRPs) are a crucially important component of the Basin Plan. They are intended to reconcile state planning frameworks with the requirements of the Basin Plan in terms of SDL compliance, planning for environmental water, maintaining water quality standards, risk management etc.<sup>39</sup> They are essentially where ‘the rubber hits the road’ in terms of how the states implement the Basin Plan.

Unfortunately the state planning frameworks do not articulate well with the Basin Plan, particularly in Victoria where the Victorian Water Act and its instruments are structured in a radically different way to the Commonwealth Water Act. The draft Wimmera-Mallee Water Resource Plan published in 2017 ran to hundreds of pages and was highly complex as it attempted reconcile the two legal frameworks. This made it very difficult for the public to engage, particularly as there was not going to be any obvious change to the way water was managed as a result of the WRP, and only 12 public submissions were received.<sup>40</sup>

Given the technical nature of the documentation, it is very difficult to make an assessment of whether what is proposed by the states actually meets Basin Plan requirements. This requires detailed knowledge of legal frameworks and current practice in all the states and is highly resource intensive. It has taken the MDBA and DELWP many months of negotiation to reach a mutual understanding of the content of the Draft Wimmera-Mallee WRP and for the MDBA to give feedback on the plan. Coupled with delay in the SDL adjustment process, which was originally intended to be completed in 2016, there is a high degree of risk that WRPs will not be accredited by 30 June 2019.

As draft WRPs are submitted to MDBA for assessment, the process will become easier as understanding grows and precedents are set. However there remain huge challenges in how different forms of take (floodplain harvesting, stock and domestic use, interception by plantations, regrowth after bushfires, farm dams etc) are measured and accounted for, and differing expectations between the MDBA and the jurisdictions on the content and degree of certainty in the WRPs.

The preparation of WRPs has slowed in recent months due to uncertainty over the SDL adjustments and compliance issues in the north. In Victoria the process is further compromised by the upcoming state election in November 2018 with submission of further WRPs to the MDBA for assessment likely to be delayed until after it has taken place. This means that there will be a flurry of WRPs to be submitted in early 2019 with really tight timelines for assessment. Deadlines may need to be extended.

The tightening timelines mean that Victoria will not be able to provide a three month public consultation period for future WRPs as they did for the Wimmera-Mallee. This is a serious concern

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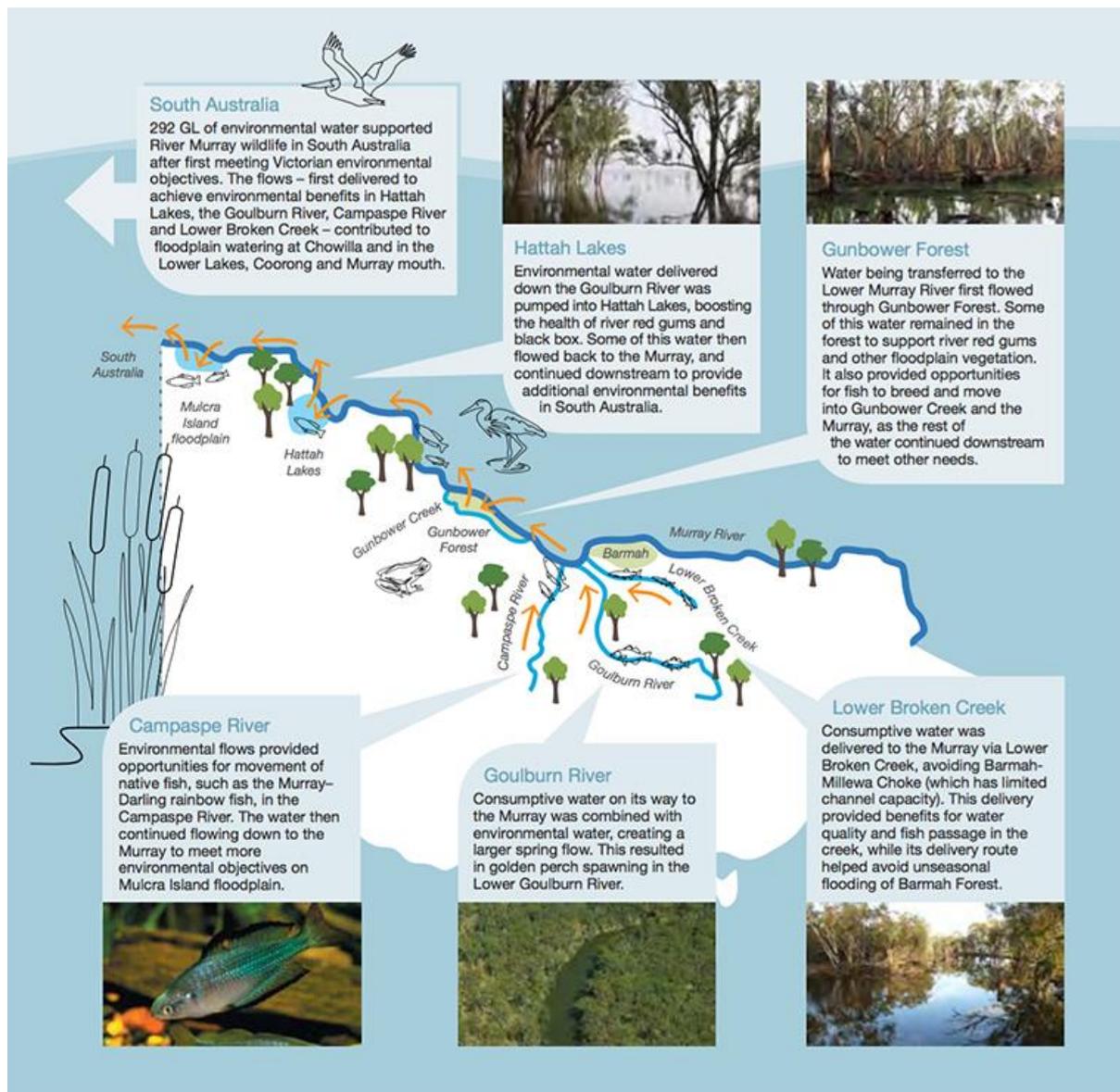
<sup>39</sup> Murray-Darling Basin Plan Ch 10

<sup>40</sup> <https://engage.vic.gov.au/draft-wimmera-mallee-water-resource-plan>

as the issues are complex and likely to be contentious in the Goulburn-Murray, and there will be little opportunity for stakeholders outside of the Working Group to engage.

### l) Environmental and ecological health of the MDB

Pre-requisite Policy Measures are largely in place in Victoria and the VEW has been able to demonstrate how the protection of environmental water can provide benefits at multiple sites.



Multiple uses of environmental water and return flows in Victoria<sup>41</sup>

<sup>41</sup> VEW (2015) *Reflections: Environmental watering in Victoria 2014-15*



However the lack of protection afforded to environmental water in NSW is an ongoing threat to the Basin Plan, which will not be successful until PPMs are fully implemented in all jurisdictions.

Another key threat to the achievement of environmental benefits under the Basin Plan is the failure to adequately manage constraints to the delivery of environmental water.

Governments have listened to community fears about constraints management projects and their commitment has wavered. These projects are only being pursued to the extent that they provide a potential SDL offset as part of the package of measures for consideration in the SDL adjustment. In June 2017 the Victorian government withdrew the Goulburn constraints management proposal from consideration because it did not provide a sufficient downwater component. They replaced it with the new 'Goulburn key focus area' project which is restricted to in-channel outcomes. According to the Wentworth Group of Concerned Scientists it will not provide any improvement on pre-Basin Plan outcomes as flows will be restricted to the current maximum of 20,000ML/day at McCoys Bridge.<sup>42</sup> As a result Basin Plan objectives for the Goulburn will not be met and the contribution of the Goulburn to downstream flows will be limited. This is the direct consequence of the Victorian government's lack of commitment to constraints management

The lack of progress in managing constraints is also having an impact on the recovery of the 450 GL of upwater. If constraints are not dealt with the upwater will fail to achieve its full potential, and the slow progress on constraints is being used by opponents of upwater to undermine the case for its recovery.

The combination of constraint relaxation and an additional 450 GL upwater can substantially increase environmental benefits, with many more flow indicators being met for the River Murray (17/18 as compared to 13/18 for the upwater alone) and the potential to benefit large areas of natural wetlands and floodplains in the lower Murray.<sup>43</sup> Doing both together creates more than the sum of the benefits of each individual action.

Failure to manage constraints means that environmental water is unable to be delivered to crucial floodplain sites and its use is restricted to in-channel and low-lying sites. This opens up the CEWH to accusations that s/he has more water than can be delivered for environmental purposes and increase pressure to sell 'surplus' water back to irrigators. The real issue is not that the CEWH has too much water but an inability to deliver it to achieve floodplain objectives.

For further information regarding this submission, please contact:

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Environment Victoria,

30 April 2018

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<sup>42</sup> Wentworth Group of Concerned Scientists (2017) Assessment of projects proposed for SDL adjustment.

<sup>43</sup> MDBA (2012) Hydrological modelling of the relaxation of constraints in the southern connected system