



Environment Victoria submission to the productivity Commission Inquiry into National Water Reform 2017

Environment Victoria is the state's peak non-government, not-for-profit environment organisation. Our Healthy Rivers Campaign is dedicated to working with government, business and communities 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 welcome the opportunity to comment on the progress of the National Water Initiative (NWI) and future directions for water reform in Australia. The establishment of the NWI was a key step in the national water reform process and it has been instrumental in many substantial achievements such as the Commonwealth Water Act and the development of the Murray-Darling Basin Plan. However some aspects of the NWI have been more comprehensively implemented than others, and some initiatives are in danger of backsliding. We will explore these issues in this submission from an environmental perspective with particular reference to Victoria which is our area of expertise.

In 2016 Environment Victoria developed the *Aquaprint: A community vision for water reform in Victoria*.¹ Based on extensive community consultation, this report outlines nine key steps for water reform to maintain and improve the health of our freshwater ecosystems, address the twin challenges of climate change and population growth, and make our water use sustainable. These steps are highly pertinent to the current inquiry and comprise:

1. Community education for water literacy
2. Reforming the Victorian Water Act to give our rivers a fair share of water and to manage surface and groundwater together
3. A Murray-Darling Basin Plan that restores our wetlands and national parks
4. A transition plan for agriculture
5. A state-wide plan for water smart towns and cities
6. A Victorian Environmental Assessment Council (VEAC) investigation into the status and management of freshwater dependent ecosystems
7. Reconnecting river corridors and restoring river banks
8. Improving water quality
9. Secure funding for sustainable water management.

A copy of the Aquaprint is included in this submission.

¹ <https://environmentvictoria.org.au/2016/05/17/aquaprint/>

Secure rights to water

Victoria has a system of secure entitlements for consumptive use that is NWI compliant. The Water Act 1989 establishes bulk entitlements, water shares and licence provisions. The creation of environmental entitlements has provided the same security to that portion of the environmental water reserve that is entitlement based. However this does not mean that all rivers in Victoria have access to sufficient secure and reliable water entitlements to meet their environmental needs.

The Victorian Environmental Water Holder (VEWH) currently holds around 650 GL of environmental water entitlements, little changed from 2013². However a significant proportion (about 50%) of the VEWH's water is low reliability and has not been allocated in the last 10 years. In addition the Commonwealth Environmental Water Holder (CEWH) holds a similar volume but with high reliability, 635 GL, exclusively in northern Victoria. These water holdings represents a big step forward during the life time of the NWI, with about 20% of water entitlements in Victoria now held on behalf of the environment

However the provision of environmental entitlements only benefits regulated rivers and even in these systems the volume may not be sufficient to meet environmental needs. The majority of the environmental water reserve in Victoria still falls into the categories of above cap and rules based water and as such lacks security and reliability; it is not under management by the VEWH or the CEWH. These categories remain vulnerable to drought and climate change and rules based water is frequently qualified by the Minister for Water at times of low water availability.³ The environment carries a disproportionate burden of risk of low water availability compared to consumptive users. Until this is rectified the environment will continue to face periods of severe stress and ongoing degradation, and the risk sharing framework that is part of the NWI will not be adhered to.

The NWI recognised the risk posed by interception to the integrity of the entitlement system and the parties agreed to take action by 2011 to bring interception into the licencing framework in over-allocated catchments.⁴ This action has not been completed and it seems unlikely that it will be implemented in full. Victoria considered the possibility of amending its Water Act to declare 'intensive management' areas where more active management is required to protect other water users and the environment from the impacts of land use change,⁵ but the change never happened and consideration of interception has fallen back into the 'too hard' basket.

Stock and domestic water use remains outside the licencing framework for the foreseeable future. The Victorian government is considering a 'reasonable use limit' for stock and domestic rights,⁶ but this is a very different proposition from bringing all water use within the licencing framework to ensure equity between users including the environment

² VEWH Annual Report 2015-16

³ VAGO (2010) Audit summary of restricting environmental flows during times of water shortage

⁴ NWI clauses 55-57

⁵ State of Victoria DSE (2011) Western Region Sustainable Water Strategy Policy 5.1

⁶ State of Victoria DELWP (2016) Water for Victoria Action 8.4

While significant progress has been made in providing secure access to water for the environment, considerable work remains to be done. Providing greater security for rules-based or planned environmental water remains an important priority, along with bringing all consumptive water use within the licencing framework to ensure equity of access between users.

Water planning

Planning for climate change

Climate change is having a really significant impact on Victoria's rivers. It is often seen as a future risk but in fact it is a present reality. Data presented in the *Water for Victoria* Water Plan shows that streamflows in Victoria have already declined by up to 70% in the last 20 years (see below) and that further reductions are likely in future. This reality is often ignored in water planning, particularly where agricultural production is concerned.

Most economic modelling, particularly in the context of the Murray-Darling Basin Plan, makes the basic assumption that current levels of agricultural production and the product mix should be maintained or increased in future. For example the dairy industry in northern Victoria aspires to return to the levels of production achieved in the early 2000s, irrespective of changes in economic conditions, climate and water availability. The possibility that the higher level of production is not sustainable in the long term has to be acknowledged and planned for. This is what transition planning is all about, that the status quo is no longer viable and that change has to be accepted and planned for. Water planning for a drier future has to be adaptable and based on a fresh set of assumptions. Climate change is not a temporary aberration, it is a permanent feature of the landscape.

Planning for the long-term

In 2005, shortly after the NWI was agreed, the Victorian government amended the *Water Act 1989* to include a long-term water resource assessment every 15 years, with the first due to commence in 2018.⁷ Following the assessment the Minister must determine if there has been a decline in the long-term availability of surface water or groundwater that has had a disproportionate effect on the environmental water reserve or on the allocation of water for consumptive purposes; or if there has been a deterioration in waterway health for reasons related to flow. 'The Minister must cause a review to be undertaken to determine the action that is required to be taken to restore the balance between the environmental water reserve and the allocation of water for consumptive purposes; or to restore the health of waterways.'⁸ This review process is the only opportunity available to the Water Minister to permanently qualify rights to correct an imbalance between environmental and consumptive needs.

With the time for the first long-term assessment fast approaching, there is significant possibility for delay and backsliding. The *Water for Victoria* Water Plan proposes legislative amendments to delay the assessment for northern Victoria until 2026⁹. In addition timelines for review of the regional Sustainable Water Strategies, which are legislated to take place at 10 year intervals, are in danger of blowing out. The Central Region SWS was endorsed by the Minister in 2006 but there is no public review in progress to date. Other regions are missing their deadlines for mid-term assessments. We are in danger of losing the big gains spurred by the NWI.

Integration of groundwater and surface water management

The PC's Issues Paper seems to have forgotten one of the indicators of success of the NWI: 'conjunctive management of surface water and groundwater resources: so that the connectivity between the two is recognised, and connected systems are managed in an integrated manner'¹⁰

Given the two are highly interconnected, groundwater and surface water should be managed as a single resource. Even when the connection is not immediate, managing them together makes sense because of their complementary properties. For example groundwater can be used as a drought reserve when surface water is in short supply.¹¹

Under the NWI, governments agreed to recognise the connectivity between groundwater and surface water and to manage connected systems together.¹² Much progress has been made in mapping groundwater and groundwater-dependent ecosystems and assessing the degree of connectivity, but, so far, Victoria has only one integrated water management plan. This plan for the Upper Ovens Valley applies the same rules to both groundwater and surface water licences so that all pumping is reduced when water is in short supply¹³. NSW goes one step further in its proposed

⁷ Water Act 1989, Division 1c

⁸ Water Act 1989 s22P

⁹ Water for Victoria Action 8.6

¹⁰ NWI Objectives listed at

<http://webarchive.nla.gov.au/gov/20160615061116/http://www.nwc.gov.au/nwi/objectives>

¹¹ National Water Commission, 2014, *Integrating groundwater and surface water management in Australia*

¹² National Water Initiative, 2004, Para 23(x)

¹³ Goulburn-Murray Water (2012) Upper Ovens River Water Management Plan

management plans for the Clyde, Deua and Tuross Rivers. Surface water and shallow groundwater will be considered part of the same resource pool and covered by a single type of water licence.¹⁴

The National Water Commission came up with a practical first step to integrate surface and groundwater management. It recommends aligning review cycles and timeframes for surface water and groundwater planning to allow consideration of opportunities and cross-impacts.¹⁵ Victoria has an obvious opportunity coming up at the legislated long-term assessment of water resources and subsequent review.¹⁶ This review could allow a reset of the planning cycle to better coordinate groundwater and surface water management across the state.

Some obvious candidates for integrated management plans have already been identified, particularly in Southern Rural Water's excellent series of Groundwater Atlases.¹⁷ These include the Avon and Mitchell Rivers in Gippsland and the Wandin Yallock Groundwater Management Area in the Yarra Valley, which are prime candidates for integrated or 'planned conjunctive' management that takes account of the whole water cycle. As research continues and knowledge of groundwater and the degree of interconnection with surface water improves, more catchments will be added to the priority list.

According to the National Water Commission, managing groundwater and surface water together at the whole of system level optimises productivity, equity and environmental sustainability.¹⁸ This type of planning should be the default template across all catchments and jurisdictions, and embedded in appropriate state and national water legislation.

Priorities for future reform

Traditional Owner rights

The NWI has made progress in recognising Traditional Owner rights to water, particularly under the leadership of the National Water Commission. In Victoria the government has committed to recognising Aboriginal values and objectives for water and to including Aboriginal values and ecological knowledge in water planning. It is also intending to support Traditional Owners in developing a roadmap for access to water for economic development¹⁹.

These are really important steps forward but much still needs to be done. Traditional Owners have called on all levels of government to urgently address the impacts on their culture, heritage and wellbeing arising from the management of water resources in the Murray Darling Basin, and have issued a Sovereign First Nations of the Murray Darling Basin Water Statement 2016²⁰. Their views are echoed by other Traditional Owner groups and should be a key focus of future national water reform.

Mining

¹⁴ <http://www.water.nsw.gov.au/water-management/water-sharing/plans-on-exhibition>

¹⁵ NWC, 2014, op cit Finding 1

¹⁶ Victorian Water Act 1989, Division 1c

¹⁷ http://www.srw.com.au/page/page.asp?page_id=687

¹⁸ National Water Commission, 2014, *Australia's water blueprint: national water reform assessment*

¹⁹ Water for Victoria ch 8

²⁰ <http://www.mldrin.org.au/first-nations-water-summit-calls-urgent-action/>

The impact of mining on water resources is conspicuously absent from the NWI.

Mining can have a significant detrimental impact on waterways. Brown coal mines are having a serious impact on groundwater levels and river flows in Gippsland, while the underlying Latrobe Group aquifer is affected by offshore drilling for oil and gas.²¹ Rivers have been repeatedly diverted to accommodate coal mines (the Morwell River has been relocated 6 times) and as the mines get bigger their 'incidental take' of rainwater increases and more polluted water is pumped out and into river systems. Gold mining has left a toxic legacy in other parts of the state. These problems will only increase as demand for new coal mines, coal seam gas and other resources grows.

Mining activity should be thoroughly integrated into the NWI framework with roles and responsibilities clarified. Any mining activity in any state should require a water licence that covers the full volume extracted, and if the catchment is fully allocated that licence should be acquired through trade. The water trigger in the EPBC Act is a step towards ensuring that mining applications are properly assessed but similar requirements are needed for all mining proposals, not just 'large' ones, and should be backed up by state legislation. The regulatory framework should be strong enough for applications to be refused on the grounds that their water impacts are unacceptable.

Accounting for ecosystem services

Water underpins economic activity and supports community wellbeing through the ecosystem services that rivers and wetlands provide. These include flood mitigation, water purification and nutrient transport and cycling, as well as the more intangible aesthetic values and a sense of place. These services are worth billions of dollars²² yet they are almost wholly absent from any planning or economic framework. This is a rapidly developing field of valuation and quantification, and should be included in future iterations of the NWI. As the United Nations Environment Program says 'Ecosystem conservation and restoration should be regarded as a viable investment option in support of a range of policy goals including food security, urban development, water purification and wastewater treatment, regional development, as well as climate change mitigation and adaptation'.²³

Institutional reform

The NWI has suffered from the abolition of the National Water Commission and is no longer dedicated COAG business. The independent reviewer of the NWC stated that '*COAG should have access to a body which provides advice and makes recommendations through publicly available reports, specifically in relation to the ongoing implementation of the NWI.*'²⁴ This recommendation

²¹ SRW (2012) Gippsland groundwater atlas

²² For example the CSIRO calculated that the ecosystem service benefits of returning 2800GL to the Murray-Darling Basin as between \$3 and \$8billion – see CSIRO (2012) '*Assessment of the ecologic and economic benefits of environmental watering in the Murray-Darling Basin*' p vi

²³ TEEB (2010) *The Economics of Ecosystems and Biodiversity - Mainstreaming the economics of nature- A synthesis of the approach, recommendations and conclusions of TEEB.*

²⁴ Rosalky, D (2011) COAG Review of the National Water Commission, p 27

remains true today and reinstatement of the NWC or a similar body to drive and report on future reform would be highly beneficial.

The loss of the Standing Council on Environment and Water has further reduced COAG's focus on water reform. As our climate dries and water becomes all the more precious, COAG needs to refocus its attention on full implementation of the NWI and the future reform pathway

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