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The Victorian 2017–18 annual report to satisfy annual reporting obligations for:

- Basin Plan Schedule 12 responses (except Matter 9 – use of environmental water)
- National Partnerships Agreement assurance of milestone achievement
- Basin Plan Implementation Agreement self-assessment of compliance with implementation tasks

Reporting context

This template provides a single Commonwealth information collection point that covers Basin State 2017-18 annual reporting obligations in relation to the Murray-Darling Basin Plan for:

- Basin Plan Schedule 12
- the Basin Plan Implementation Agreement compliance requirements
- the milestone assessments of the National Partnership Agreement on Implementing Water Reform in the Murray-Darling Basin (NPA)

Reporting for Schedule 12 Matter 9 (the identification and use of environmental water) is reported separately.

The Department of Agriculture and Water Resources will use the information provided in this template as well as multiple other sources to meet NPA reporting requirements. Where milestones have not been fully met in 2016–17 or 2017–18, Basin states should indicate what steps are underway to fully meet the milestone in the future. Where applicable, describe any intended actions and planned timeframe for the milestone to be met. The department will seek collaborating information from the MDBA and Commonwealth Environmental Water Office where applicable.

A. Local Knowledge and Stakeholder Engagement

Reporting Matter	Reporting Requirement (Supporting evidence to be provided by Basin States)	Response (response/milestone achievement/compliance status)
<p>A The outcome of engagement on the implementation of the Basin Plan</p> <p><i>Applicable to Schedule 12, Matter 6, Indicator 6.1 and NPA 8e</i></p>	<p>Please describe the process and outcomes of local engagement for key BP implementation activities in 2017-18 as follows:</p> <p>Aa) Water Resource Plans:</p> <ul style="list-style-type: none"> The engagement process and how local knowledge and views influenced the development of WRPs. Any activities undertaken to increase Traditional Owners' capacity to participate in the development of WRPs, and improve engagement between water planners and Traditional Owners, in order to incorporate indigenous values and uses into WRPs (BP Ch10 Part 9) <p>Ab) Environmental watering:</p> <ul style="list-style-type: none"> Describe the engagement process and how local knowledge, views and solutions influenced the planning and delivery of environmental water and the outcomes. This includes how the following were considered: <ul style="list-style-type: none"> the views of local communities and persons materially affected by the management of environmental water (BP8.39 and NPA 8e) indigenous values (BP8.35) <p>Ac) Other Basin Plan implementation activities, namely SDL adjustment:</p> <p>Describe how local knowledge and solutions identified through engagement with local communities, including Aboriginal communities, impacted on the implementation of other key Basin Plan mechanisms or activities including the development and implementation of SDL adjustment measures. (Reporters may also choose to address any of their other engagement priorities, which may vary among jurisdictions). Examples or case studies are not mandatory, but may be a useful way to describe how local knowledge and solutions inform implementation of the Basin Plan.</p>	<p>Water Resource Plans</p> <p>The Wimmera-Mallee Water Resource Plan was developed in consultation with Traditional Owners, key stakeholders in the Wimmera-Mallee and broader public consultation. Key stakeholders were engaged through a technical advisory group who provided guidance on the development of the Plan. Engagement with Traditional Owners was predominantly through on-Country meetings, providing support where requested to Traditional Owner groups to identify objectives and design outcomes for water resources, supporting, celebrating and sharing culture and traditional practices within Traditional Owner and Nation groups, discussing economic development opportunities, and building relationships and Traditional Owner organisational and community capacity.</p> <p>In order to increase Traditional Owners' capacity to participate and improve engagement between water planners and Traditional owners, the Department of Environment, Land, Water and Planning (DELWP) continued to fund Aboriginal Water Officer positions to help relevant Traditional Owner groups contribute to water resource plan development and build capacity to engage with the Victorian water sector.</p> <p>DELWP also facilitated workshops with Traditional Owner groups to facilitate the development of objectives and outcomes for incorporation in the Wimmera-Mallee Water Resource Plan.</p> <p>Environmental Watering</p> <p>In 2017-18, stakeholders and the community were engaged to provide local knowledge, views and solutions to inform annual environmental watering priorities by Catchment Management Authorities (CMAs) during the preparation of their seasonal watering proposals. These proposals form the basis of the Victorian Environmental Water Holder's (VEWH) seasonal watering plan, which sets the scope of potential environmental watering across Victoria for the water year.</p> <p>Engagement occurs with a broad range of interested parties, including through established Environmental Water Advisory Groups (EWAGs), Traditional Owner groups, community groups, Committees of Management, and through direct engagement with interested individuals and private landholders. Information obtained through this engagement, such as observations, monitoring results and risk identification and management, is used to shape the implementation of environmental watering. Further to these regional engagement activities, the VEWH engages regularly with statewide peak bodies and stakeholders, including Environment Victoria, the Victorian Farmers Federation, the Federation of Victorian Traditional Owners Corporation, the Field and Game Association, Victorian Fisheries Authority, VRFish (Victorian Recreational Fishing peak body) and the Game Management Authority.</p> <p>Victoria's catchment management authorities (CMAs) have an established network of stakeholders from local communities and peak bodies that are engaged on a range of issues, including the development and implementation of regional waterway strategies, environmental water management plans and annual seasonal watering proposals. These networks have been established for many years and have been an effective mechanism to engage with local communities. In more recent years, as the environmental water portfolio has expanded, some CMAs have established specific environmental watering advisory groups (EWAGs) through public advertisements, nominations and/or recommendations. In some instances, additional stakeholders have also been identified as opportunities require.</p> <p>As a specific example, community engagement is used in development of Environmental Water Management Plans (which are asset-based and underpin Long Term Watering Plans) to gain input and feedback on: identification of the asset's ecological values; the long-term management goal for environmental watering of the asset; the ecological objectives for environmental watering; and the environmental watering requirements (as is appropriate for a particular asset and stakeholder). In 2017-18 no new EWMPs were required, although monitoring and research projects conducted within the Basin may feed into the subsequent revisions of existing EWMPs in the future.</p> <p>Victorian CMAs have provided numerous examples from 2017-18 on the process and outcomes of local engagement on implementation of the Basin Plan, including:</p> <p>From North Central CMA</p> <p>The North Central Catchment Management Authority (NCCMA) has initiated significant engagement to consider the views of local communities and persons materially affected by the management of environmental water. A good example is its work at Gunbower Forest with Barapa Barapa Traditional Owners, who they have continued to work within 2017-18 to provide Traditional Owner knowledge input that directly feeds into the Seasonal Watering Proposal and Seasonal Watering Plan for Gunbower Forest and Creek. This engagement ensures that both ecological and cultural objectives are considered when developing the proposal and provides an opportunity to identify potential activities for the coming watering year.</p> <p>During this engagement Barapa Barapa Traditional Owners identified impacts from carp as a significant risk to their culturally important wetlands and they believe that it is their cultural responsibility to manage the risks. In 2017-18, a carp removal project was trialled by the North Central CMA in partnership with Barapa Barapa Traditional Owners which aimed to remove the large adult carp manually from the two highest-priority wetlands within Gunbower Forest (Reedy Lagoon and Black Swamp) prior to the delivery of environmental water. The project is a key example of collaboration to achieve shared ecological and cultural objectives.</p> <p>Further to this, Barapa Barapa Traditional Owners have been working in partnership with the North Central CMA to deliver the Water for Country project in Gunbower Forest from 2015. The Water for Country project builds on the work of the previous Barapa Barapa Cultural Heritage Mapping of Lower Gunbower Forest project, delivered in 2013-2014 to map a catalogue of cultural heritage assets in the forest.</p> <p>The Barapa Water for Country project aims to investigate how Traditional Owners' cultural and spiritual values may be better represented in water management. Although there are accepted methodologies to describe and determine the hydrological requirements of flow dependent ecosystems,</p>

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		<p>cultural values and their requirements have historically been poorly understood.</p> <p>The Barapa Barapa Water for Country project has led to the creation of the Barapa Barapa Cultural Watering Objectives Framework, a guiding document to ensure cultural priorities and outcomes are considered and incorporated in environmental watering through Seasonal Watering Proposal development. The framework has been used for the first time in 2018 to assist with the development of Barapa Barapa cultural objectives for proposed environmental watering activities. Applying the framework will ensure that water managers are better equipped to ensure environmental watering activities incorporate Barapa Barapa Traditional Owners' cultural aspirations.</p> <p>The North Central CMA, Barapa Barapa Traditional Owners and DELWP Forest Fire Management also conducted a cultural burn near Reedy Lagoon, which was the first cultural burn for the group. The burn was conducted at a corroboree ground within Reedy Lagoon and along with the provision of environmental water, is helping to care for this significant ecological and cultural asset.</p> <p>The North Central CMA has also engaged with the Barapa Barapa Traditional Owners and vegetation experts to share knowledge on watering objectives and planning for Reed Bed Swamp in Guttrum Forest that is to receive water for the first time in 2018-19. Guttrum Forest is a culturally significant place, and it is anticipated that the water will be delivered in partnership with Barapa Barapa for the first time. This site is one of the Victorian proposed SDL Offsets projects, but environmental water will need to be pumped to the site until water delivery infrastructure is in place (by 2024).</p> <p>From Wimmera CMA</p> <p>An example of CMA engagement with local communities and persons materially affected by the management of environmental water (specifically recreational users of waterways) was the annual environmental water forum held in Drung in September 2017. This involved representatives of a number of community recreational groups (e.g. angling, rowing, waterski clubs) and agencies. It presented an opportunity for attendees to comment on planned actions for the water year as well as providing feedback on past actions. This community feedback influenced the CMAs timing of planned summer flow deliveries in 2018 resulting in shared benefits for both environment and recreational users of waterways. This forum was also the launch of the Wimmera Southern Mallee Socio-Economic Value of Recreational and Environmental Water report (https://wda.org.au/images/170920WSM_Soci-economic_value_of_Recreational__Environmental_Water.pdf) and Rex Hunt angling video (https://www.youtube.com/watch?v=WFBYelgrkP8)</p> <p>Other methods of community engagement include SMS and social media updates as well as a new webpage dedicated to environmental watering information and updates for the Wimmera River System (http://www.wcma.vic.gov.au/rivers-and-streams/river-flows) which generates community feedback.</p> <p>Planning is also underway with Barengi Gadjin Land Council to undertake a watering of The Ranch Billabong near Dimboola for cultural and environmental outcomes later in 2018.</p> <p>From Mallee CMA</p> <p>Watering proposals have been presented to the First People of the Millewa Mallee who represent four Traditional Owner groups. Knowledge gained from engagement activities with these groups is ongoing through onsite meetings and also integrated with other CMA activities. The Mallee CMA Aboriginal Reference Group (ARG) is also consulted during the development of watering proposals.</p> <p>Mallee CMA supported DELWP and First Nations Legal and Research Services through attendance of and presentation to a whole of country planning weekend with the First People of the Millewa Mallee. Numerous other TO engagement events have taken place in 2017/18 within the Mallee CMA including at:</p> <ul style="list-style-type: none"> • Merbein Common with a campfire and cultural tour of artefacts in the landscape • Robinvale waterway value mapping exercise, supporting an existing Elders lunch in the Robinvale community • Hattah-Kulkyne National Park, Kings Billabong National Park and Merbein Common with students • Fishing Day at Lindsay Island. <p>The Fishing Day at Lindsay Island provided additional time and input from Traditional Owners in a more relaxed atmosphere. This Fishing Day event provided an opportunity for staff of the Mallee CMA to engage with the Traditional Owners about site selection, watering regimes and any other environmental watering considerations for the Mallee CMA's 18/19 Seasonal Watering Proposal. In particular, some intimate traditional knowledge at Lake Wallawalla informed the decision to adopt an alternative inundation delivery pattern, which was modified to deliberately try and influence some high elevation Black Box trees on the wetland fringes which were starting to show signs of stress.</p> <p>A dedicated Indigenous Facilitator for the Mallee CMA continues to act as a conduit between Aboriginal knowledge from Traditional Owners and operational planning being considered by the Mallee CMA; in particular to inform environmental watering operational phases and regimes prior to and during each water year. In addition, our Indigenous Facilitator continues to work closely with the ARG and other TO's to explore requirements for developing proposals for future cultural water sites.</p> <p>From Goulburn-Broken CMA</p> <p>Goulburn-Broken CMA delivered a base flow of 400 ML/d downstream of Lake Eildon in the mid Goulburn River for the first time between August - September 2017 and May – June 2018. Local fisherman and community members provided advice on the flow required to support native fish and trout in the area, which informed the design and delivery of the baseflow. Typically, in the non-irrigation period releases in this reach are no higher than the Bulk Entitlement passing flow requirement of 120 ML/day. The higher baseflow is designed to maintain existing beds of in channel macrophytes and maintain habitat for invertebrates and native fish. The baseflow also supports the maintenance of the local trout population. The Goulburn River directly downstream of the Lake Eildon is one of Victoria's premiere trout fisheries.</p> <p>VEWH as managers of held environmental water have also provided numerous examples from 2017-18 on the process and outcomes of local</p>

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		<p>engagement on implementation of the Basin Plan, including:</p> <p>Attending and/or convene a diverse range of planning and operational stakeholder meetings with involvement of the community and various agencies. For example:</p> <ul style="list-style-type: none"> Agencies were engaged through the Barmah-Millewa, Hattah Lakes, Gunbower, Lindsay, Mulcra & Wallpolla islands, Goulburn and Loddon rivers operational advisory groups (OAGs). The OAGs provide a forum for environmental water holders, site managers and river managers to share technical and operational information to assist coordination of water for the environment and operational water in order to improve environmental outcomes. For example, collaboration through the Hattah Lakes OAG led to a tangible adaptive management outcomes at Hattah Lakes. Towards the end of the delivery to Hattah Lakes a decision was made to extend pumping and increase the volume of water authorised authorised from 110 GL to 125 GL to better meet the targeted inundation levels. This decision was made with input from the OAG with consideration of environmental benefits that could be achieved and associated risks. As a result of the extended delivery, water made it to a larger area of stressed black box, park users were not impacted by the minor extension of watering (approx. 2 weeks) and water quality (dissolved oxygen) did not deteriorate during the mild weather experienced at the time. Environmental watering program partners were engaged through operational planning and risk management workshops where partners undertake joint risks assessments for seasonal watering proposals. As a result of the workshops partners recognised and assumed responsibility for environmental watering risks within their sphere of influence. Agencies, interest groups and community members were engaged through the Goulburn, Broken River, Campaspe, Loddon and Loddon Murray Wetlands EWAGs to incorporate expertise and local knowledge into seasonal watering proposals and to inform environmental watering decisions. For example, through the Loddon EWAG Northern Central CMA, VEWH is working to explore options to obtain agreement for inundation of private land to support floodplain in the Loddon catchment. <p>During 2017-18 a strong partnership with Birdlife Australia was forged, resulting in a citizen science project where community members are involved in monitoring bird responses to environmental watering at Lake Cullen. In February 2018, Birdlife Australia delivered a training workshop in Kerang, where volunteers developed the skills they needed to conduct monthly monitoring of the lake's bird population – data they are now inputting into the Birdlife Australia National Database to inform future environmental watering and other management activities.</p> <p>Consulting with a wide range of stakeholders to research Aboriginal engagement and inclusion in the Victorian environmental watering program has revealed a 'snapshot' of 20 local projects or partnerships across Victoria being delivered by Traditional Owners with waterway managers or other organisations. This information will help VEWH and our local partners to better include Traditional Owner knowledge, values, practices and rights in management of water for the environment.</p> <p>The Water for the Environment 'Share, Connect and Improve' Symposium 2018 was hosted by the Applied Aquatic Ecology Hub, and involved over 100 environmental water professionals, including Traditional Owners, working in research, management, and policy and program development. Attendees discussed key barriers to effective knowledge exchange, and how these can be overcome to improve environmental watering outcomes.</p> <p>The Environmental Water Matters Forum 2017 brought together representatives of over 20 organisations drawn from across government and the community to learn more about water for the environment, share ideas and information, and find out how managers from different states are working together to protect species and ecosystems.</p> <p>Other Basin Plan implementation activities, namely SDL adjustment:</p> <p>Limited community engagement occurred during 2017-18 on Victoria's supply and constraint measures. This was primarily due to the higher level processes underway throughout the year, including:</p> <ul style="list-style-type: none"> the MDBA's SDL adjustment determination and associated public consultation process; the disallowance motion in Commonwealth Parliament, tabled in February 2018; negotiations with the Commonwealth regarding funding for pre-construction activities for Victoria's nine environmental works-based supply measures. <p>Consultation with MLDRIN in early 2018 has helped to clarify the concerns of Aboriginal communities regarding the SDL adjustment process/projects, and to focus future engagement and consultation approaches for the nine environmental works projects.</p> <p>Victoria provided local knowledge and assistance to the MDBA for the SDL Adjustment Information Provision sessions conducted by the MDBA on how the offset projects would be determined. This included actively encouraging stakeholder participation. Information sessions were held in Shepparton, Wodonga, Mildura and Kerang in September 2017 prior to the formal submission process in October.</p> <p>Staff from several Victorian agencies including DELWP, the Mallee and North Central CMAs and Goulburn-Murray Water attended and actively participated in the MDBA's first SDLAM technical workshop, held on 28 June 2018.</p> <p>During 2017-18, Victoria commenced the development of a program delivery strategy for the nine environmental works projects to ensure that they are delivered on time and within budget. The delivery strategy will set out the program governance and delivery arrangements, based on a delivery risk assessment. Consultation with local agency stakeholders regarding the delivery strategy has occurred during 2017-18. The delivery strategy will be completed in September 2018.</p> <p>Constraints Management Strategy</p> <p>As part of the Ministerial Council decision in June 2017, Victoria prepared and submitted in September 2017 a revised new Goulburn Constraints Measure business case. The project was changed in response to concerns raised by the local community and no longer targets overbank flows. Due to the very short timelines to develop the new business case, no further community consultation was carried out during its development. Instead, the business case has drawn on the outcomes of the consultation carried out for the original 2016 business case. Subject to Commonwealth funding, the Victorian</p>

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		<p>government has committed to consulting with all affected landholders to ensure community acceptance of and support for the project.</p> <p>The business case has been submitted to the other Basin States and the Commonwealth for consideration. The new Goulburn project is nominated as a constraint measure only. It does not contribute to the 605 GL water recovery offset. Once the business case is accepted, funding will be sought from the Commonwealth government for the delivery of the project.</p> <p>Victoria is an active member on the multijurisdictional Constraints Measures Working Group. This group met six times during 2017-18 to develop an integrated Constraints Measures Workplan, as requested by Ministerial Council.</p> <p>Efficiency Measures</p> <p>Further to the Ministerial Council outcomes of 8 June 2018, the Victorian government is consulting with southern basin jurisdictions in developing socio-economic criteria to inform the recovery of up to 450GL of water as part of the Basin Plan efficiency measures. A forward plan of tasks to develop this work commenced during the 2017-2018 year, with detailed development of outcomes and consultation with the broader community to progress into the 2018-2019 year.</p>

B. Environmental Watering

Reporting Matter	Reporting Requirement (Supporting evidence to be provided by Basin States)	Response (response/milestone achievement/compliance status)
<p>B1 Long-term watering plans were prepared, with the required content, published, reviewed and updated as obligated under Part 4 of Chapter 8, Divisions 3.</p> <p><i>Applicable to Schedule 12, Matter 10, Indicator 10.1; NPA 8f and BPIA 18.1</i></p>	<p>B1 Are you on track to develop long-term watering plans for surface water resource plan areas consistent with the requirements of the Basin Plan?</p> <p>DAWR guidance - reporting may include:</p> <ul style="list-style-type: none"> Where long-term watering plans have not been finalised, please indicate whether an extension of time has been agreed with the MDBA and report on progress in the preparation of plans to provide assurance that the agreed revised timeframe will be met. 	<p>Long term watering plans were submitted in 2015 for Victoria's three water resource plan areas: Wimmera-Mallee, Northern Victoria, and Victorian Murray. The plans were developed according to the requirements of chapter 8 clauses 8.18 – 8.21 and with a view to fulfilling Schedule 12 Matter 8 reporting, i.e. they identify priority environmental assets and ecosystem functions for each area; ecological objectives and targets for these; environmental watering requirements for the objectives and targets; cooperative arrangements for delivery of environmental water; long-term risks; and operational constraints. In addition, the plans discuss Victoria's water management framework, types of held and planned environmental water (as understood at the time of writing), the need for complementary measures in achieving environmental outcomes, and identified potential monitoring that will assist 2020 reporting on Schedule 12 Matter 8. The plans were a collaborative effort between DELWP (as environmental water policy lead), CMAs (as waterway managers), and the VEWH (as managers of held environmental water) and developed according to existing management frameworks in Victoria – i.e. a site-based, bottom up planning approach was used and collated into the plans, which included community and stakeholder consultation. The plans are available at https://www.water.vic.gov.au/waterways-and-catchments/rivers-estuaries-and-waterways/environmental-water.</p> <p>Victoria will work with MDBA to address existing concerns for the plans as they are reviewed and updated every five years, or as the water resource plan is accredited. This work will begin for the Wimmera-Mallee plan in 2018-19.</p> <p>While not a requirement under Basin Plan, Victoria has been developing its first Monitoring, Evaluation and Reporting Plan for meeting Schedule 12 Matter 8 reporting. To date this plan has generated a 'gap analysis' to determine what monitoring will be used for 2020 reporting on Schedule 12 Matter 8 reporting. The results of this show that Victoria's two long-term monitoring programs, VEFMAP for rivers and WetMAP for wetlands, can be used to evaluate progress against the ecological targets set in long term watering plans, along with some additional programs including CEWO's Long-term Intervention Monitoring (LTIM) in the Goulburn, and CMA event-based monitoring. An initial look at how Victoria is progressing against the targets was captured in the Basin Plan Environment Report Card which was released in December 2017 (https://www.water.vic.gov.au/reportcard).</p> <p>No decision has been made in 17-18 regarding the need for an integrated Murray long-term watering plan, as states are waiting for NSW to complete their relevant long-term watering plan for the Murray.</p>
<p>B2 Annual priorities were prepared, with the required content, published, reviewed and updated as obligated under Part 4 of Chapter 8, Division 4</p> <p><i>Applicable to Schedule 12, Matter 10, Indicator 10.1; NPA 8c and BPIA 19.1</i></p>	<p>B2 Were annual environmental watering priorities (AEWP) or other relevant instruments submitted to the MDBA for all areas by 31 May 2018, for the purposes of identifying the Basin annual environmental watering priorities for the water resource plan areas?</p> <p>DAWR guidance - reporting may include:</p> <ul style="list-style-type: none"> Confirmation that annual environmental watering priorities have been prepared and provided to the MDBA for all (regulated and unregulated) surface water catchments. A rationale should be given for any areas where these have not been prepared. As per s8.24 of the Basin Plan, the level of detail in annual environmental watering priorities may vary according to local conditions, and statutory and other arrangement prevailing in the water resource plan areas. 	<p>Each year Victorian waterway managers scope potential environmental watering for their regions for the coming year in seasonal watering proposals. The proposals draw on environmental flow studies, and longer term plans such as EWMPs and regional waterway strategies. The proposals also incorporate information and advice from local communities, stakeholders and Traditional Owners. The VEWH Seasonal Watering Plan is a collated summary of the endorsed actions from the proposals. Formal environmental water advisory groups give community members and other interested parties the opportunity to discuss environmental watering in their region or locality during planning and operating phases in a water year. Land managers and storage managers also consider and endorse the seasonal watering proposals to ensure that watering plans align with land and storage management objectives and can feasibly be delivered.</p> <p>The VEWH submitted Victoria's draft annual environmental watering priorities to the Murray-Darling Basin Authority on 29 May 2018 for consideration in developing the Basin annual environmental watering priorities. These priorities reflect the proposed watering actions outlined in the VEWH's Seasonal Watering Plan 2018-19, which can be found at: http://www.vewh.vic.gov.au/watering-program/seasonal-watering-plan</p> <p>In addition to this the Victoria Government presented proposed watering actions for Victorian Living Murray Icon Sites (including Hattah Lakes, Lindsay Mulcra Wallpolla Islands, Barmah-Millewa Forest and Gunbower Forest) to the Murray-Darling Basin Authority through the Southern Connected Basin Environmental Watering Committee (SCBEWC) on 16 May 2018.</p>

<p>B3 Watering strategies, plans and priorities are prepared consistently with Part 4 of Chapter 8, in relation to coordinating, consulting and cooperating with other Reporters and the matters to which regard must be had (Chapter 8, Part 4)</p> <p><i>Applicable to Schedule 12, Matter 10, Indicator 10.2; NPA 8c, 8d and 8f and BPIA 20.1</i></p>	<p>B3) Please describe progress in coordination, consultation or cooperation issues with other Basin jurisdictions on the management and delivery of environmental water and opportunities for further improvement.</p>	<p>The Victorian Environmental Water Holder is an active member of the Southern Connected Basin Environmental Watering Committee (SCBEWC), which is the forum that supports coordination of environmental water delivery across multiple water holders and jurisdictions in the southern connected basin. SCBEWC brings together agencies to coordinate and manage environmental water across the Commonwealth, New South Wales, Victorian and South Australian governments.</p> <p>In order to streamline planning processes and avoid duplication, SCBEWC incorporates two distinct functions: the coordination of environmental water across the southern connected basin (facilitation), and decision making on a number of jointly held water portfolios and joint natural resource management program elements. This approach ensures effective coordination across multiple water portfolios while allowing different environmental water holders to make independent decisions.</p> <p>Key to the effectiveness of SCBEWC is its broad membership, collaboration and consultation - providing all relevant stakeholders involvement and shared responsibility in the effective and efficient management of water for the environment.</p> <p>Co-operation between jurisdictions is continually evolving and environmental water managers and river operators are working more closely together to improve outcomes for the river system. Increasingly they assess how various plans and real-time actions link together to start to look for opportunities to adjust watering actions to better meet the ecological needs of multiple parts of the southern connected basin. This emerging system-wide approach ensures that outcomes achieved at individual sites supports the Basin Environmental Watering Strategy for the benefit of a healthier and more productive basin.</p> <p>The MDBA's 2017 evaluation of the Basin Plan found that by 2016-17, over a third (37%) of all environmental watering events were coordinated events involving multiple environmental water holders. This increasing collaboration is seeing environmental water managers combine their water to achieve larger and more effective events than would otherwise be possible.</p> <p>Case study that demonstrates effective co-ordination across jurisdictions</p> <p>An example of cross jurisdictional co-ordination was the recent delivery of over 180 GL of water for the environment in spring 2017, using water available from the Commonwealth Environmental Water Holder, Victorian Environmental Water Holder and joint-government water portfolios (The Living Murray, and River Murray Increased Flows, administered by the MDBA and where consensus decisions are made by the Southern Connected Basin Environmental Watering Committee). This event was coordinated with the delivery of other parcels of water, including water being released to meet consumptive demands.</p> <p>The delivery of a combination of water sources enabled more widespread watering of wetlands in the Barmah-Millewa Forest, at the right time of year in Spring/early summer, to improve the growth of wetland plants such as the threatened Moira grass and trigger water bird breeding that could then be supported with targeted deliveries of environmental water over summer. Importantly this allowed follow up watering to the high natural flows that were experienced in 2016 – a management action to consolidate the strong ecological response to flooding that will help build resilience.</p> <p>Water returning from this spring 2017 event was used to supplement watering activities that linked rivers and wetlands throughout other parts of the system. The water that flowed out of the Barmah-Millewa Forest event, plus water coming from environmental watering events in the Goulburn and Campaspe Rivers as well as lower Broken Creek, were used to meet a large portion (90%) of the 112 GL pumped into the Ramsar listed Hattah Lakes in 2017 (a wetland of international significance). This delivery, using pumping infrastructure, capitalised on the Hattah Lakes already being partially filled following the 2016-17 floods and enabled the flows to reach stressed black box trees which hadn't been flooded since 1993 and were in a poor condition. The remaining water from the upstream events (and 52 GL of outflows from the Hattah Lakes once the lakes were drawn back down) then flowed through the remainder of the River Murray to provide connectivity all the way to the end of system at the Coorong and Murray mouth. This level of system connectivity has been identified in the Basin Wide Environmental Watering Strategy as being crucial for supporting ecological connections and processes as well as site based outcomes.</p>
<p>B4 How Environmental watering principles were applied consistent with Chapter 8, Part 4, Division 6.</p> <p><i>Applicable to Schedule 12, Matter 10, Indicator 10.3; NPA 8d and BPIA 20.2</i></p>	<p>B4a) Provide at least one case study that demonstrates how environmental watering principles were embedded in the decision-making process and identify the relevant principles.</p> <p>B4b) Please provide reasons for any environmental watering that was not in accordance with the Basin annual watering priorities listed at Att A (partially/fully), in accordance with Section 8.44 of the Basin Plan and Principle 1.</p> <p>B4c) Confirmation that the management and delivery of planned and held environmental water was consistent with the Basin Plan, including the environmental watering plan's <i>Principles to be applied to environmental watering</i>.</p> <p>If confirming, please provide evidence and examples. If unable to confirm, please describe what actions are underway to enable confirmation in the future.</p>	<p>Please refer to Case Study described in section B3. The Hattah Lakes case study met the environmental watering principles by;</p> <ul style="list-style-type: none"> Aligning with the 2017-18 Basin environmental watering priorities (Principle 1) of building on the environmental benefits of the natural floods in 2016-17. The Hattah Lakes watering in 2017-18 had two primary objectives. The first objective was to inundate River Red Gum and Black Box vegetation flooded during 2016-17 to enhance the survival of saplings that recruited the previous year. The second objective was to water Black Box on the floodplain that had not been inundated since 1993. Relatively high lake levels at the end of 2016-17 made it possible to inundate higher lake levels with available environmental water, thereby maximising environmental outcomes through efficient use of environmental water (Principle 3). The case study highlights how use of environmental water at multiple sites maximises outcomes while using the resource as efficiently as possible (Principle 3). Local community interests were considered (Principle 3 and Principle 7) by timing the event to ensure water levels had sufficiently drawn down prior to the summer high-visitation period. The timing of the delivery and associated track closures were planned in consultation with the land manager, Parks Victoria. The timing of the Hattah Lakes watering was designed to mitigate the risk (Principle 4) of a low dissolved oxygen event occurring within the lakes and when return flows were delivered to the River Murray. This was achieved by delivering water through winter-spring and allowing drawdown before the onset of warmer conditions in summer. Nearing the end of the watering event in mid-October 2017, the full volume authorised for the event (100 GL) had been used but the target level on the floodplain (45.0 m AHD) had not been reached. Management was adapted (Principle 8) when additional water was authorised to extend watering by approximately two weeks to achieve increased floodplain inundation. The risks of impacting water quality was also considered in making the decision to extend pumping (Principle 4).

	<p>DAWR guidance - reporting under B4c) may include: Confirmation that the management and delivery of planned and held environmental water was consistent with the Basin Plan's <i>Principles to be applied to environmental watering</i>, including Principle 4b, which states that environmental watering is to be undertaken having regard to the risks of extraction of that water for other uses.</p>	<p>Two of the 26 Basin annual watering priorities listed at Att A were not fully met for the reasons described below.</p> <p><i>4.n (BIRD) Barmah–Millewa: Improve the abundance and diversity of the Basin's waterbird population by using the following waterbird management strategies: 3, 6 and 7 [wet water resource availability scenario]</i></p> <ul style="list-style-type: none"> Response: Watering in Boals Deadwood to support bird fledging commenced in accordance with annual watering priorities for improving bird populations. Feral pig predation of ibis eggs in Boals Deadwood occurred during the delivery, resulting in an abandoned ibis breeding colony, despite environmental water delivery to support the birds. Watering ceased when it was recognised that the objective could not be achieved, aligning with principles 3, 5 and 8). The land manager is focusing feral pig management activities around key waterbird breeding sites and the target depth for future deliveries is being reviewed. <p><i>6. (VEG) Barmah–Millewa Forest: Improve the condition and extent of Moira grass in Barmah–Millewa Forest. Refer to table 6 of the Identifying which priority to employ will depend on the resource availability scenario as set out in Table 6 of the 'Basin environmental watering priorities – Overview and technical summaries – 30 June 2017' report. [wet water resource availability scenario]</i></p> <ul style="list-style-type: none"> Response: Ecological objectives for Moira grass outcomes can only be managed during an event for outcomes to be targeted in either Barmah or Millewa Forest. In 2017-18 watering priorities focused on Moira grass outcomes in Millewa Forest. However, the flows also achieved some positive outcomes for Moira grass in Barmah Forest in 2017-18. <p>The Basin Plan and Commonwealth Water Act refer to two types of environmental water: held and planned. Held environmental water in Victoria consists of water held by the VEWH or CEWH to be taken and used in the system for environmental purposes.</p> <p>Planned environmental water is water that is committed or preserved for the purpose of achieving an environmental outcome, and cannot be taken for any other use. There is very little planned environmental water in Victoria, however there is 'shared benefit water' that is managed through water system management rules, or unallocated water. This includes passing flows not specified as having an environmental purpose; unregulated river diversion rules (local management plans or rules) that provide security for all users of the resource; or water remaining in the system after consumptive and environmental entitlements are taken out (referred to as 'above cap' water). This water may contribute to overall environmental condition or outcomes, but may be taken for other uses such as stock and domestic use.</p> <p>No planned environmental water (PEW) has been identified in the Wimmera-Mallee water resource plan area (refer to submitted WRP), and at present there are three types of planned environmental water identified in Northern Victoria, noting this WRP is in draft: water protected in the Upper Ovens River by the Upper Ovens River Water Supply Protection Area Management Plan; minimum and maximum flows identified for environmental purposes in the Broken system under the Bulk Entitlement (Broken System-Goulburn-Murray Water) Conversion Order 2004; and minimum and maximum flows identified for environmental purposes in the Ovens River under the Bulk Entitlement (Ovens System – Goulburn-Murray Water) Order 2004.</p> <p>This PEW is provided consistent with Basin Plan and principles in the Environmental Watering Plan (chapter 8). The three specific instances of PEW and its associated rules and arrangements will be identified and explained in the Northern Victoria Water Resource Plan.</p>
<p>B5 Characteristics of licenced entitlements held for environmental use</p> <p><i>Applicable to NPA 8a</i></p>	<p>B5 Except as otherwise agreed between the Commonwealth and the relevant State(s) to facilitate improved environmental watering, please confirm that the characteristics of licensed entitlements held for environmental use have not been enhanced or diminished relative to like entitlements held for other purposes.</p> <p>DAWR guidance - reporting may include:</p> <ul style="list-style-type: none"> Where proposals to trade environmental water have not been supported, evidence of likely adverse third party impacts should be provided. 	<p>The characteristics of entitlements held for environmental use were not enhanced or diminished relative to like entitlements held for other purposes during 2017/18.</p> <p>All water entitlements in Victoria are issued in accordance with the (Victorian) <i>Water Act 1989</i>. These include bulk entitlements, environmental entitlements, water shares; and take and use licences. They provide the entitlement holder with a legally recognised right to a share of the water resource with a specified reliability of supply, and where carryover rules apply, a right to the share of storage.</p> <p>Victorian water entitlements were held for environmental use in 2017/18 by the Victorian Environmental Water Holder (VEWH) and the Commonwealth Environmental Water Holder (CEWH). The Minister responsible for administering the <i>Water Act 1989</i> (the Minister for Water) grants environmental and bulk water entitlements to the Victorian Environmental Water Holder (VEWH). These must be used to maintain the environmental water reserve and improve the environmental values and health of water ecosystems. Both bulk and environmental entitlements authorise the VEWH to take and use/apply a share of the available resource in storages to meet specific environmental needs. These needs are informed by Victorian waterway managers.</p> <p>The Commonwealth Environmental Water Holder (CEWH) also holds Victorian entitlements for the environment, such as water shares and take and use licences. These have also been issued by the Minister for Water (via delegation) and subsequently recovered by the Commonwealth government.</p> <p>During 2017/18 there were no changes to the characteristics of the water entitlements held for environmental purposes, or any special treatment compared to entitlements held for other purposes. This includes:</p> <ul style="list-style-type: none"> Water was allocated to all entitlement holders, including environmental water holders, in accordance with the seasonal determination rules and water allocations set out in bulk entitlements. Seasonal determination announcements for Goulburn-Murray Water's region were published at https://nvrn.net.au/, and seasonal allocation announcements for Wimmera-Mallee entitlement holders were published at http://www.storagemanager.com.au/. Carryover provisions were applied consistent with the rules issued under the Water Act 1989. These rules enable unused water at the end of one season to be carried over into the next, regardless of whether the water is held for environmental purposes or not. Current carryover rules can be accessed at http://waterregister.vic.gov.au/water-entitlements/carryover/carryover-rules All applications to trade water in a declared system in 2017/18 were assessed against the Trading Rules for Declared Systems issued under the Water Act 1989 (http://waterregister.vic.gov.au/images/documents/Trading%20Rules%20-%20updated%2030%20June%202014.pdf). These rules do not allow for any special treatment of trades based on whether the water entitlement is held for environmental purposes or not. All applications to trade water are processed in the Victorian Water Register, including refused applications. There were no applications refused on the basis of the water being used for environmental purposes. <ul style="list-style-type: none"> Victoria's DELWP was not made aware of any other proposals during 2017/18 by environmental water holders to trade water.

		<ul style="list-style-type: none"> o Victoria has continued to actively participate in the joint Trade Adjustments project to review Schedule D of the Murray-Darling Basin Agreement, and has continued to advocate the importance of considering issues with trade adjustments to South Australia's delivery pattern during periods of unregulated flow as part of this project. The MDBA has advised the Basin Officials Committee (meeting 61) that due to the complexity of some options under consideration and the wide-ranging scope of the work, initial recommendations will now be presented to BOC in early 2019. These recommendations will include areas for further work that may necessitate a second phase of the project. o Victoria is continuing to work constructively with the MDBA, other Basin States and CEWH to consider any proposals for future potential trades of environmental water while the Schedule D review is continuing. <ul style="list-style-type: none"> • There were no amendments to the bulk or environmental entitlements held by the VEWH
<p>B6 Measures to facilitate the use of environmental water</p> <p><i>Applicable to NPA 8b</i></p>	<p>B6a) Where feasible and agreed by the relevant basin state, and where third party impacts have been considered, confirm that measures have been implemented to facilitate the use of environmental water by protecting environmental water in-stream and on land.</p> <p>B6b) Describe how has the State facilitated:</p> <ul style="list-style-type: none"> - the delivery of environmental water in-stream through arrangements such as water shepherding to facilitate environmental flows (NPA 8(b)(i)) and, - the further use of environmental water at multiple locations, such as through return flow provisions (NPA 8(b)(ii)). <p>B6c) Where interim measures have been implemented, please describe what actions are underway, or proposed, to implement enduring measures that will facilitate longer term protection and use of environmental water.</p> <p>If unable to confirm, please describe what actions are underway to enable confirmation in the future.</p> <p>DAWR guidance - reporting under B6a), b) and c) may include:</p> <ul style="list-style-type: none"> - Confirmation that arrangements are in place to protect environmental flows and allow reuse of environmental water at multiple locations. Please indicate where these arrangements are specified. - Reporting on the implementation of Prerequisite Policy Measures should also be provided. <p>Where these measures have not been fully implemented, please indicate what future actions are planned to ensure implementation by June 2019, for example through the preparation and accreditation of water resource plans.</p>	<p>Measures have been implemented in Victoria to facilitate the use of environmental water by protecting environmental water in-stream and on land for several years. Victoria's water entitlement framework provides the legislative arrangements that enable environmental water holders and resource managers to</p> <ul style="list-style-type: none"> - deliver environmental water in-stream and shepherd it through the waterways (i.e. protect it from re-extraction) - re-use environmental water returned to the waterway at multiple locations <p>These tools for achieving effective use of environmental water were developed through Victoria's Sustainable Water Strategies and are now well established.</p> <p>The use and recredit of water under the VEWH's bulk and environmental entitlements is managed by a Resource Manager appointed by the Minister for Water under Section 43A of the Water Act 1989 in accordance with arrangements set out in the bulk and environmental entitlements. The Resource Manager is responsible for monitoring compliance with all entitlements, not just those held by environmental water holders. In northern Victorian systems where entitlements are held for the environment, Goulburn-Murray Water has been appointed as Resource Manager.</p> <p>In accordance with the bulk and environmental entitlements, the Resource Manager draws on a network of flow gauges, verified models and in the case of the River Murray, advice from the Murray-Darling Basin Authority, to determine how much environmental water is instream or being diverted. This includes calculating the volume of water used under the VEWH's entitlements as the amount of water flowing past specified monitoring points in excess of the flow that would have occurred had this water not been supplied. It also includes enabling the VEWH to re-use or be credited for water that it has used and subsequently returned to the water supply system based on either metering or a method agreed with the VEWH. Agreed arrangements for recrediting in Victoria take into consideration any volumes of water extracted by consumptive users within the reach of interest.</p> <p>In 2017/18 these arrangements enabled environmental water holders to deliver 660 GL of water in Victoria that was re-used downstream for additional environmental benefit (including shepherding to the South Australia)</p> <p>The VEWH holds bulk and environmental entitlements in Victoria's major regulated systems in the Murray-Darling Basin, including the Murray, Goulburn, Campaspe and Loddon systems. All held environmental water within these systems, including the CEWH's, is delivered through these entitlements.</p> <p>The VEWH's bulk and environmental entitlements authorise it to apply flows to specified or nominated delivery points along designated rivers. This authorisation enables the VEWH to place an order that targets flow rates at various points along the length of a river, subject to delivery capacity and operating constraints. To ensure flows throughout the length of a river, the VEWH orders target flows at both the upstream and downstream reaches of the river system.</p> <p>Since the release of the Northern Region Sustainable Water Strategy (NRSWS) in 2009, bulk and environmental entitlements held by the VEWH in northern Victoria have progressively been amended to authorise credits of return flows for downstream environmental use. The VEWH has this right under its bulk and environmental entitlements in the Murray, Goulburn and Campaspe systems and can implement it by agreement of GMW in Victoria.</p> <p>All environmental water delivery in Victoria during 2017/18 was consistent with the Victorian water entitlement framework, and no interim measures were adopted. Victoria has identified four actions to improve environmental delivery in the Prerequisite Policy Measures Implementation Plan for Victoria. These actions are focussed on meeting the prerequisite policy measure (PPM) requirements of being transparent, fully operable and secure and enduring. These actions are on track to be implemented by 30 June 2019. An update on the status of each of the four actions is provided below.</p> <p>Action 1: Investigate return flow provision in the Loddon River</p> <p>Unlike other bulk and environmental entitlements held by the VEWH in northern Victoria, the VEWH's Loddon bulk entitlement does not currently provide for return flows. In 2016/17 and 2017/18 the VEWH and Goulburn-Murray Water (GMW) as the Resource Manager for the Loddon System undertook a trial to explore the feasibility of calculating return flows from environmental deliveries in the Loddon system. Initial results of this trial have been positive. The calculation method is yet to be finalised, however Victorian agencies have commenced working together to propose an amendment to the VEWH's bulk entitlement that would enable re-credits for returned environmental flows. Under the Victorian Water Act 1989, an amendment to the bulk entitlement can be made by Victoria's Minister for Water following a period of public consultation and consideration of any adverse impacts on third parties.</p> <p>Action 2: Investigate amending return flow provisions in the Living Murray environmental entitlements</p> <p>The Living Murray entitlements enable the VEWH (on behalf of the Living Murray Initiative) to be re-credited for any return flows, however the process is more onerous than other entitlements because recrediting requires approval from the Minister for Water, rather than the Resource Manager in the Goulburn and Campaspe Systems. An investigation into amending these entitlements is underway. Under the Water Act 1989, an amendment to the bulk entitlement can be made by Victoria's Minister for Water following a period of public consultation and consideration of any adverse impacts on third parties.</p> <p>Action 3: Investigate enabling use of return flows at NSW sites</p> <p>Environmental water holders have inquired whether they could reuse Victorian return flows at NSW sites. While to date there has been no specific need for this facility, it could provide additional flexibility for environmental water holders in the future. Victoria has identified a possible mechanism to enable</p>

		<p>use of Victorian return flows at NSW sites, and vice versa. A paper is currently being prepared for discussion with the MDBA and NSW outlining how these arrangements could work.</p> <p>Action 4: Finalise and document operating arrangements for the delivery of environmental water in the Goulburn, Campaspe, Loddon and Victorian Murray systems.</p> <p>The enabling provisions and conditions for PPMs are clearly captured in legislation, bulk and environmental entitlements and policy options. However, detailed operating arrangements are less transparent. To better articulate the robust process of environmental water delivery that has been occurring in Victoria, Victoria is preparing to document the PPM delivery arrangements within the Northern Victoria Water Resource Plan (Comprehensive Report).</p> <p>Return flow provisions are in place in Victoria, enabling environmental water to be shepherded through the system to meet downstream environmental demands in Victoria and into South Australia. Trade is the mechanism used to 'shepherd' environmental water flows down the Murray and across the border from Victoria to South Australia, so that environmental flows are not re-regulated for supply to consumptive users.</p> <p>The reuse policy is available for environmental water delivered from VEWH's Goulburn, Murray and Campaspe entitlements in the northern region. It increases the efficiency of environmental water use and helps reduce the volume of water needed to be recovered for the environment from consumptive water users.</p> <p>If the water is to be reused in South Australia, the VEWH trades the re-credited return flow volume to environmental water managers in South Australia. This may include return flow transfers to South Australia for the CEWH and Living Murray, when the VEWH delivers water on their behalf.</p> <p>During the season, the VEWH makes regular transfers (e.g. monthly) of environmental return flows to South Australia to account for the water that flowed on after meeting Victorian environmental objectives to be reused downstream - providing whole-of-system benefits. For example, in 2017-18, the VEWH transferred about 525 GL of environmental return flows to South Australia (progressively traded over the year). This water was initially delivered to achieve environmental benefits at Victorian sites such as the Goulburn and Campaspe rivers, lower Broken Creek, Hattah Lakes, Barmah-Millewa Forest, and Gunbower Forest, before continuing down the River Murray to sites within South Australia.</p> <p>The conditions of VEWH's access to return flows are in the VEWH's Campaspe, Goulburn and Murray entitlements. These entitlements can be viewed online at: waterregister.vic.gov.au/water-entitlements/bulk-entitlements.</p> <p>Example of effective use of return flows</p> <p>In 2017-18 environmental water was delivered in the Goulburn River to provide environmental benefits such as supporting bank vegetation and improve habitat for native fish to breed, including golden perch. The water flowed down the Goulburn River and into the River Murray, where the VEWH applied to the Northern Victorian Resource Manager (Goulburn-Murray Water) to have the volume of environmental water that reached the River Murray re-credited into downstream VEWH Murray accounts as a reusable flow called return flows. Some of this Goulburn water was diverted into Hattah Lakes to support blackbox vegetation communities that had not been inundated for more than 20 years and to provide native fish feeding and breeding habitat. Return flows out of the Goulburn were also delivered to Lake Wallawalla in the Lindsay Mulcra Wallpolla icon site to support wetland vegetation and waterbirds, as well as into Gunbower Forest, to commence watering of floodplain vegetation in June 2018 ahead of continuing winter-spring watering event in 2018-19. Return flows from Hattah Lakes and the remaining water from the Goulburn flow that was not diverted into the Hattah Lakes, Lake Wallawalla or Gunbower Forest was passed downstream to South Australian priority watering sites (such as the Lower Lakes and Coorong) to trigger native fish migration, feeding and breeding habitat for waterbirds and support instream vegetation.</p>
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C. Water Quality and Salinity Management

Reporting Matter	Reporting Requirement (Supporting evidence to be provided by Basin States)	Response (response/milestone achievement/compliance status)
<p>C1 Progress with implementation of the Basin Plan <i>Water Quality and Salinity Management Plan</i> (BP CH9) and outcomes.</p> <p><i>Applicable to Schedule 12, Matter 14, Indicator 14. and BPIA 21.1</i></p>	<p>C1 Context: BP ch9.14 recognises that flow management, in some circumstances, can assist with the management of water quality issues, such as salinity, hypoxic blackwater events and blue green algal outbreaks. The intent of s9.14 is that 'having regard' to these risks and opportunities becomes part of business as usual when making decisions about flow management or the use of environmental water. Other actions that can also address water quality issues include coordination and communication about blue green algal outbreaks (in line with BP9.18) or hypoxic blackwater events.</p> <p>In this context, please describe how these water quality issues were considered, when making decisions about flow management or the use of environmental water, and/or other actions; did this make a difference to these water quality issues, and any learnings to inform continuous improvement.</p>	<p>Environmental water management plans and icon site operating plans</p> <p>CMA's across Victoria, in collaboration with communities and agencies, have developed over 48 long-term Environmental Water Management Plans (EWMPs) and four Icon Site Operating Plans to guide environmental watering activities at rivers, wetlands and floodplains across the State. These plans outline the values, objectives, watering requirements of the sites and operating strategies. They also summarise key risks that may impact on the ability to achieve objectives, including risks to water quality.</p> <p>Environmental watering proposals</p> <p>Risks related to watering, including those related to water quality, are identified and assessed in site-based seasonal watering proposals, developed annually by CMA's. These proposals draw on the risks outlined in EWMPs and operating plans and identify specific actions to mitigate these risks.</p> <p>Victorian environmental watering program shared risk management framework</p> <p>Risk management is an integral part of managing water for the environment. Program partners consider it throughout management of water for the environment (that is, during long-term and annual planning, implementation and review).</p> <p>The VEWH, in collaboration with its program partners, has developed a risk management framework that addresses interagency risk, respects the risk management practices of each partner, documents roles and responsibilities in operating arrangements and is applied as part of program management. The key elements of the framework are described below.</p> <p>Seasonal watering proposals that are incorporated into the annual seasonal watering plan, identify potential risks associated with the specific watering actions proposed for the coming water year. During the development of CMA proposals, partners jointly assess risks and identify and commit to mitigation</p>

		<p>actions. A collaborative approach is the best way to manage the shared environmental watering risks. Program partners consider and reassess these and other potential risks as the season unfolds and planned watering actions are due to commence.</p> <p>Some risks, such as water quality risks, may only eventuate at the time of delivery. For example, warm conditions during lower flows can provide conditions for algae (e.g. blue-green algae) to flourish. Planned environmental water may be timed to provide freshening events to alleviate some of the impacts of algae breaking down and causing hypoxic blackwater in smaller systems. Planned environmental water can also be timed to alleviate other small scale water quality impacts, such as freshes to flush saline water through the systems or improve dissolved oxygen levels. Program partners review risks immediately before a planned delivery of water for the environment, and implement measures or actions to mitigate the risks as agreed with all relevant program partners using the risk planning frameworks developed in the annual planning phase. Watering actions will not be implemented if unacceptable risks to the public or the environment cannot be mitigated.</p> <p>Even with best-practice risk management controls, there may be unintended impacts from environmental flows or situations where environmental flows cannot be delivered as planned. In those situations, program partners work together to respond to incidents and then learn and adapt their management of risks.</p> <p>The VEWH has developed an agreed approach to incident management to help program partners report, investigate and respond to risks.</p> <p>In March and April 2018 three risk workshops were held across northern Victoria, based in the North Central Catchment, Mallee Catchment and Goulburn-Broken Catchment, bringing together waterway managers, storage managers and land managers. The workshops focused on identifying and analysing shared risks and determining potential mitigating actions, including determining each agencies' responsibilities in the management of these shared risks. These risks and mitigating strategies were incorporated in the CMA's Seasonal Watering Proposals and VEWH's Seasonal Watering Plan for 2018-19. This collaborative approach to risk management highlighted the importance of early and regular communication and cooperation between organisations in managing risk to ensure successful delivery of the Victorian environmental watering program.</p> <p>Monitoring</p> <p>The VEWH funds CMAs to conduct targeted monitoring of selected watering actions that pose potential risks (such as salinity or blackwater) or new watering events to inform adaptive management. This monitoring complements water quality information collected by MDBA River Management for the River Murray and is separate from long-term intervention and condition monitoring programs sponsored by the CEWO and DELWP. During events, data and outcomes from specific event monitoring are presented at Operational Advisory Group (OAG) meetings, which include environmental water managers, river operators, storage managers, water holders, and land managers, to inform operational management decisions and the implementation of risk mitigation strategies.</p> <p>An example of having regard for water quality targets occurs in Lower Broken Creek. Lower Broken Creek is highly regulated and water is delivered from the Goulburn and Murray systems to support irrigation. Due to regulation, Lower Broken Creek retains fairly constant water levels all year and as a consequence it supports abundant native fish including Murray cod. A major threat to the creek is low dissolved oxygen (DO) in summer and consequently there are environmental flow objectives to maintain DO above 5 mg/L from October to May, particularly in summer when temperatures rise. DO is measured at multiple sites at the end of the Lower Broken Creek system (Rices Weir and associated weir pool) and where possible flows are adjusted to maintain DO at acceptable levels. In January 2017 work was undertaken to improve confidence in data provided by dissolved oxygen sensors at Rices Weir.</p> <p>Since late October 2016 the required flows have been met by regulated flows to meet irrigation demand combined with environmental water. An operational advisory group with representatives from the VEWH, CEWO, MDBA, GMW and GBCMA provides a coordinated forum to discuss and resolve issues with environmental water planning and delivery, including management of DO.</p> <p>Case Study – low dissolved oxygen in the Goulburn River following rainfall</p> <p>In early December 2017, 65 mm to 170 mm of rain fell in the Goulburn River catchment triggering high flows in tributaries of the lower Goulburn River including Pranjip Creek, Castle Creek and Sevens Creek. Inflow from these tributaries flushed a large amount of organic matter into the Goulburn River. Warm weather immediately after the event provided ideal conditions for biological breakdown of this organic matter and as a consequence dissolved oxygen levels dropped.</p> <p>Similar events in the Goulburn River in previous years have caused dissolved oxygen levels to drop below 2 mg/L and have resulted in fish deaths. To mitigate the risk during the 2017 event, Goulburn Broken CMA and Goulburn Murray Water increased releases from Goulburn Weir using a combination of Goulburn Water Quality Reserve and environmental water. Dissolved oxygen levels at McCoys Bridge in the lower Goulburn River dropped from 6 mg/L to 3.2 mg/L as the event passed through, but the actions of the CMA and water corporation likely prevented a severe environmental outcome and dissolved oxygen concentrations gradually increased to more than 5.0 mg/L two days after the event</p> <p>Water Corporations</p> <p>Under s41(2) of the Water Industry Act 1994 (Vic), the Minister for Water issues a Statement of Obligations (SOO), which specifies the obligations of water corporations in relation to the performance of their functions and exercise of their powers. The current SOO was updated by the Victorian Minister for Water on 20 December 2015. It applies to the water corporations operating in the state's share of the Murray-Darling Basin: https://www.water.vic.gov.au/data/assets/pdf_file/0015/54330/Statement-of-Obligations-General.pdf</p> <p>Part 5 of the SOO requires Victorian water corporations to ensure that the risks associated with the functions they perform and the services they provide are identified, assessed, prioritised and managed. This includes the development of a specific emergency management plan for risks to water quality and discrete requirements for reporting on any blue green algae blooms impacting on water supply or delivery services.</p> <p>Goulburn-Murray Water (GMW) and Grampians Wimmera Mallee Water (GWMWater) are the Victorian water corporations responsible for storage operations and bulk water supply in Victoria's surface water resource plan areas. Note both GMW and GWMWater generally use the term blue-green</p>
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		<p>algae (BGA) in operations instead of cyanobacteria.</p> <p><u>Goulburn-Murray Water response (Northern Victoria and Victorian Murray Water Resource Plan Areas)</u></p> <p>GMW had regard to the dissolved oxygen targets of section 9.14(5)(a) by:</p> <ul style="list-style-type: none"> • Maintaining the minimum flow provisions of the bulk entitlements for the Ovens, Broken, Goulburn, Campaspe and Loddon bulk entitlements • Contributing to the real-time and spot monitoring of dissolved oxygen concentrations at locations along the Victorian tributaries to the River Murray (eg Rice's Weir, Goulburn Weir) • Including dissolved oxygen concentration data in daily data used for operational planning • Distributing regular external reports on dissolved oxygen concentrations at strategic locations and issuing extra reports as data trended towards target levels • Participating in operations advisory groups for environmental watering events including the Barmah-Millewa Forest, Goulburn River, Gunbower Forest and Hattah Lakes • Maintaining the availability of the 30 gigalitre reserve in the Goulburn system for mitigation of poor water quality <p>GMW had regard to the recreational water quality targets of section 9.14(5)(b) by:</p> <ul style="list-style-type: none"> • Operating as the delegated Regional Coordinator for blue-green algae (BGA) management across northern Victorian water systems • Participating in the Murray Regional Algal Coordinating Committee (MRACC) convened by NSW • Maintaining regional BGA management plans for northern Victorian water systems • Maintaining local BGA management for GMW-operated water storages and irrigation areas • Contributing to the monitoring of BGA concentrations at key locations in Victorian tributaries to the River Murray • Distributing regular external reports on BGA concentrations at key locations and issuing extra reports (including media releases for public information) as data trended towards target levels • Maintaining the availability of the 30 gigalitre reserve in the Goulburn system for mitigation of poor water quality <p>GMW had regard to the salinity targets of section 9.14(5)(c) by:</p> <ul style="list-style-type: none"> • Maintaining the minimum flow provisions of the bulk entitlements for the Ovens, Broken, Goulburn, Campaspe and Loddon bulk entitlements • Contributing to the monitoring of salinity concentrations (real-time and spot measurement) at locations along the Victorian tributaries to the River Murray (e.g. Rice's Weir, Goulburn Weir) • Including salinity concentration data in daily data used for operational planning • Participating in operations advisory groups for environmental watering events including the Barmah-Millewa Forest, Goulburn River, Gunbower Forest and Hattah Lakes as appropriate <p><u>Grampians Wimmera Mallee Water response (Wimmera-Mallee Water Resource Plan Area)</u></p> <p>GWMWater had regard to dissolved oxygen targets of section 9.14(5)(a) by:</p> <ul style="list-style-type: none"> • Ensuring that water quality remains a key objective and is properly considered within relevant storage management rules so that water is fit for purpose for urban, industrial, stock and domestic and environmental use. • Releasing Victorian Environmental Water Holder authorised water to the Wimmera River and its tributaries in accordance with requests received from the Wimmera Catchment Management Authority; • Contributing to waterway monitoring at various locations, including locations at which dissolved oxygen is continuously monitored; • Recognising that it owns and operates a number of deep storages that may produce cold water and low dissolved oxygen impacts in downstream waterways; and <p>GWMWater had regard to the recreational water quality targets of section 9.14(5)(b) by:</p> <ul style="list-style-type: none"> • Developing and continuously updating a range of procedures and policies that are used to detect, identify and deal with blue green algae within its water storages including headworks storages; • Undertaking regular water sampling to monitor for and detect BGA outbreaks; • Operate as the delegated regional coordinator for blue green algae management; • Distribute regular internal and external reports and information about blue green algae outbreaks including media releases and signage. <p>See C3 for information triggers for 2017-18.</p>
<p>C2 Apply salinity targets in the Murray– Darling Basin Agreement for salinity planning and management.</p> <p><i>Applicable to Schedule 12, Matter 14 and BPIA 23.1</i></p>	<p>C2 The MDBA, the BOC, and Basin States are to undertake any long-term salinity planning and management functions in accordance with the targets in Appendix 1 of Schedule B of the Murray-Darling Basin Agreement (including the Basin Salinity Management Strategy Operational Protocols).</p> <p>Please indicate how this is done.</p> <p>Note that Basin States may refer to Basin Salinity Management 2030 Strategy reporting to meet this reporting requirement, in line with the Schedule 12 Reporting Guidelines.</p>	<p>The State's fulfilment of planning and management functions for the targets in Appendix 1 of Schedule B have been reported through Victoria's Basin Salinity Management 2030 Strategy (BSM2030) Biennial Report for 2015-17 to the Murray-Darling Basin Authority (MDBA), which was audited by the Independent Audit Group (IAG) for Salinity.</p> <p>The State is currently preparing a BSM2030 Annual Status Report for 2017-18, which will be submitted to MDBA in October 2018. Victoria has an excellent track record of compliance with Schedule B of the Murray-Darling Basin Agreement, as confirmed by the Report of the IAG for Salinity July 2015-June 2017, dated January 2018.</p>
<p>C3 Determine whether the trigger is reached.</p> <p><i>Applicable to Schedule 12, Matter 13 and BPIA 26.1</i></p>	<p>C3 The Guideline for the triggers and processes for changing water sharing Tiers provides guidance on how the MDBA and Basin States should communicate if the triggers are reached.</p> <p>Please indicate if a trigger was reached and if so, what action was taken.</p>	<p>Dissolved oxygen and salinity levels in Victorian tributaries to the River Murray did not exceed trigger levels during 2017/18.</p> <p>GMW increased the baseflow in the Goulburn River during December 2017 at the request of the Goulburn Broken Catchment Management Authority to reduce the chance of a hypoxic blackwater event occurring with predicted severe weather. The increased baseflow came from the Goulburn water quality reserve (5.8 GL) and allocation held by the Commonwealth Environmental Water Office (6.33 GL) and the Victorian Environmental Water Holder (2.23 GL).</p> <p>A minor hypoxic blackwater event followed rainfall in the One Mile Creek at Wangaratta, which is a tributary to the Ovens River. Agencies reported no</p>

		<p>effects on aquatic species.</p> <p>GMW issued warnings for high cyanobacteria levels in:</p> <ul style="list-style-type: none"> • Lake Eppalock in the Campaspe system • Cairn Curran Reservoir, Tullaroop Reservoir and Laanecoorie Reservoir in the Loddon system • Hepburn Lagoon in the Bullarook system • Lake Charm and Gum Lagoon in the Torrumbarry Irrigation Area <p>Blue-green algae (Cyanobacteria) levels in the River Murray did not exceed guideline values for recreational use in 2017/18.</p>
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D. Water Trading

Reporting Matter	Reporting Requirement (Supporting evidence to be provided by Basin States)	Response (response/milestone achievement/compliance status)
The implementation of water trading rules.		
<p>D1 Compliance with the Basin Plan water trading rules</p> <p><i>Applicable to Schedule 12, Matter 16, Indicator 16.1 and BPIA 29.1-31.1</i></p>	<p>D1 Provide website links to the publication of information regarding an Approval Authority's interest in a trade (s12.38 (2)).</p> <p>Provide documentation to support compliance with s12.37 (notice of disclosure)</p> <p>Describe how you have notified affected parties with the decision to restrict a trade and reasons for the restriction consistent with 12.39.</p> <p>How has your State undertaken best endeavours to ensure water announcements have been made generally available?</p> <p>Provide documentation that supports a compliance with s12.50 (water announcements to be made generally available).</p>	<p>Victoria consistently meets Basin Plan water trade obligations, and is continuing to work constructively with the MDBA on the remaining area of uncertainty. Victoria has continued to develop our water market to make trading easier and help irrigators to manage their water better while staying informed.</p> <p>In Victoria, there are four water corporations that are approval authorities subject to Basin Plan (BP) water trading rules. These are Coliban Water, Goulburn-Murray Water (GMW), Grampians Wimmera Mallee Water (GWMW) and Lower Murray Water (LMW).</p> <p>Each water corporation implements different policies and procedures to ensure that relevant parties are notified of the interests of the approval authority prior to the trade being approved. Letters from each approval authority outlining the measures they have implemented to support compliance with BP s12.37 are attached to this document (Attachments 1-4).</p> <p>As outlined in the letters, Coliban Water and GWMW are only market participants in situations where the trade is initiated by their customer. In such situations, disclosure that the customer is dealing with the water corporation is embedded in the application process. GMW and LMW are market participants in a wider range of scenarios; to account for this, both water corporations have put in place additional measures to ensure functional separation between their decisions to trade and their trade approvals. These measures include use of a third party to broker any trades and a requirement that brokers must disclose when the water corporation is a party to or has an interest in any trade, prior to submission of the trade.</p> <p>In accordance with BP s12.38, the Victorian Water Register website provides publicly available reports on all approved trades where an approval authority has an interest in the trade. This information is available for all such trades conducted by each approval authority since 1 July 2014 (including water trades in 2017-18). Refer to: http://waterregister.vic.gov.au/water-trading/status-of-trading-applications (see section titled "Trades where the approval authority is also the buyer or seller").</p> <p>Pursuant to BP s12.39, the Victorian Water Register has an in-built system that issues automatic written notifications to trading parties that have had their applications refused. The Water Register generates letters that Victorian approval authorities send to applicants to notify them that the trade has been refused and the reason(s) for refusal. In 2017-18 Victoria implemented new functionality through the Water Register to provide more clear and consistent reasons for refusal in all trade notifications including email notifications from trades submitted online. These improvements provide new information (where relevant) on all trading rules applicable to the refused trade and the specific trading rule that restricted any trade. This work will help market participants to improve their understanding of trade rules in Victoria and between states. The Water Register also notifies processing officers at Victorian approval authorities of the specific trading rules that restrict any trade, so they can provide applicants with more specific information in their written notifications, or upon request.</p> <p>When an application is submitted online through the Broker Portal within the Victorian Water Register, an automated written notification of the outcome of the trade application is provided to the broker at the time. As part of the conditions of use of the Broker Portal, the broker is obliged to provide a copy of this notification to the applicant(s) by the next business day.</p> <p>In accordance with BP s.12.50, Victoria has procedures in place to ensure water announcements are made generally available. Allocation and carryover announcements in northern Victoria are made generally available on the Northern Victorian Resource Manager's (NVRM) website at http://nvrn.net.au. The Victorian Water Register website also provides live public reports on current allocation trade opportunities within trade limits at http://waterregister.vic.gov.au/water-trading/allocation-trading.</p> <p>The NVRM website publishes regular seasonal determination announcements, summary information on trade opportunities and limits, and links to the Victorian Water Register and MDBA websites for further information at http://nvrn.net.au/seasonal-determinations.</p> <p>Any announcements about changes to Victorian water trading rules are made generally available on the 'News' page of the Victorian Water Register website at http://waterregister.vic.gov.au/about/news.</p> <p>Victorian water corporations and the VEWH do participate in water trade, and each has protocols and procedures in place to ensure that a person who is aware of a relevant water announcement before it is generally available must not trade until that information is generally available. The DELWP does very little trade, and is further developing refined procedures and policies to strengthen existing business practices to mitigate risks associated with the disclosure and management of water announcements.</p> <p>The Murray-Darling Basin Plan water trading rules place obligations on government agencies, including environmental water holders, regarding the management of water market sensitive information (known as a 'water announcement' under the trading rules – see Chapter 12, Part 5, Division 5 of the Basin Plan). Under these rules, persons or organisations may be prevented from trading when they have knowledge of water market sensitive</p>

		<p>information before it is made public. Some of the decisions and actions the VEWH may take in relation to water allocation trade (including its administrative transfers) may be considered a 'water announcement' within the meaning of the Basin Plan trading rules. The rules allow that such information is not considered a water announcement if it is consistent with a publicly available trading strategy. This document forms the VEWH's trading strategy which is found here; http://www.vewh.vic.gov.au/news-and-publications/news/water-allocation-trading-strategy-2018-19. The VEWH also has trading business rules that limit the volume of water that can be traded in a single transaction and in a single week to minimise impacts to the market. The VEWH's Trade Strategy describes expected water availability and potential commercial and administrative trade opportunities for the coming year. The 2017-18 Trade Strategy was published on the VEWH website in June 2017. The VEWH commercially traded 15,000 ML of Murray allocation in March 2018 in accordance with its trading business rules and the 2017-18 Trade Strategy. This trade was possible in the second half of the year, after the peak of demands had passed. Sufficient allocation was available to meet a small amount of Murray system demands for the remainder of year and sufficient water was available to carryover to meet early-season 2018-19 demands.</p>
<p>D2 Trade processing times</p> <p><i>Applicable to Schedule 12, Matter 16, Indicator 16.2; NPA 6d and BPIA 29.1-31.1</i></p>	<p>D2a) Report on interstate and intrastate trade processing times (as per the COAG service and reporting standards for trade processing times).</p> <p>D2b) Provide confirmation that applications for entitlement and allocation trades to which the Commonwealth was a party were processed consistent with the agreed service standards.</p>	<p>Current year reporting on trade processing times (as per the COAG service and reporting standards for trade processing time) is provided publicly on the Victorian Water Register website at: http://waterregister.vic.gov.au/water-trading/status-of-trading-applications.</p> <p>Complete annual data for previous years is available publicly in the Victorian Annual Water Trading Reports published at: http://waterregister.vic.gov.au/water-trading/trade-reports. The 2017-18 Victorian Annual Water Trading Report is expected to be published at the end of 2018.</p> <p>Data from the Victorian Water Register on 2017-18 trade processing times is also provided in the attached spreadsheet titled "2017_18 VIC COAG service standards report.xls" (Attachment 5). As this sheet demonstrates, Victoria has far exceeded the COAG services standards for allocation trades processed; and the percentage of water share transfers processed by the water corporation and registered by the Registrar within the indicated timeframes.</p> <p>Separate analysis of trades to which the Commonwealth was a party in 2017-18 (provided in attached spreadsheet titled: "Service standards reports - Commonwealth trades 2017-18.xlsx" (Attachment 6) indicates that:</p> <ul style="list-style-type: none"> - Victoria exceeded the service standard for the approval process for entitlement trades. - Victoria exceeded the service standard for the registration process for entitlement trades. - Victoria exceeded the service standard for allocation trades within Victoria. - Victoria exceeded the service standard for interstate allocation trades with SA and NSA.
<p>Restrictions on trade and their application (Refers compliance status with sections s12.02-12.27 of the Basin Plan).</p>		
<p>D3 Ensure trades are consistent with the Basin Plan water trading rules</p> <p><i>Applicable to Schedule 12, Matter 16; NPA 6a, and 6b and BPIA 29.1</i></p>	<p>D3a) Report progress made in the last year in removing unnecessary restrictions on allocation trade in surface water systems including those MDBA identified as priorities in each Basin state.</p> <p>D3b) Confirmation of the removal of volumetric or other barriers to permanent trade out of water irrigation areas that are inconsistent with the Basin Plan water trading rules.</p> <p>DAWR guidance - reporting may include:</p> <p>Please advise if any new restrictions have been introduced. The intention is to ensure that all barriers to permanent water trade have been resolved prior to the conclusion of the NPA, or else it has been agreed the issue is not material to Basin water reform. If the status of any matter has not changed since 2016-17 reporting, this will suffice as the response.</p>	<p>Victoria made a number of changes on 1 July 2014 to align Victorian trading rules with Basin Plan water trading rules. This included the removal of the annual 4% limit on the volume of water shares traded out of irrigation districts in northern Victoria, and a number of changes to allow anyone to buy water allocation.</p> <p>As required under BP s12.19, Victoria notified the MDBA of all trading restrictions imposed by Victoria in a letter dated 24 July 2014. There have been no new trading restrictions introduced since this date. Public advice on this matter is also available at http://waterregister.vic.gov.au/about/news/168-changes-to-victorian-water-trading-rules.</p> <p>During 2017-18, Victoria actively participated in the MDBA's flexible trade adjustment project, which aims to explore how alternative procedures for accounting for trades between valleys and states could present improved opportunities for trade.</p> <p>Victoria has undertaken significant work to amend legislation, trading rules, systems and procedures to support compliance with the Basin Plan trading rules which came into effect on 1 July 2014. Victoria has no remaining barriers to permanent trade out of irrigation areas since the annual 4% limit on the volume of water shares traded out of irrigation districts in northern Victoria was removed on 1 July 2014. Victoria is continuing to work constructively with the MDBA on the remaining area of uncertainty in Victoria's application of the Basin Plan trading rules, regarding the movement of water under tagged trade arrangements under section 12.23. This work will be a joint priority for Victoria and the MDBA during 2018-19.</p> <p>Victoria continued to play a lead role in work between states and with the MDBA to investigate how improvements to river operations and trade adjustments can help to improve the management of trade in line with the objectives of the Basin Plan trading rules by enhancing trade opportunities and minimising potential third party and environmental impacts.</p> <p>In close collaboration with MDBA staff, Victoria also delivered new functionality through the Water Register to allow trades subject to the Barmah Choke trade limit to be automatically approved through online applications. This has reduced transaction costs and improved access to trade opportunities. The new functionality has been built to support sharing of this technology with other states once their systems are capable of supporting it.</p>
<p>D4 NWI-consistent surface water entitlements</p> <p><i>Applicable to NPA 6e</i></p>	<p>D4 Confirmation that surface water entitlements in regulated systems are consistent with clauses 28 to 32 of the NWI, unless where otherwise agreed by the Commonwealth.</p>	<p>There has been no change since the 2016-17 assessment. Victorian entitlements in regulated surface water systems are consistent with the provisions of clauses 28–32 of the National Water Initiative (NWI), noting that as previously advised entitlements in the Coliban system are held by individuals and companies in the form of take-and-use licences under section 51 of the Water Act 1989 (Vic.). The licences are tradable. There is no current plan to unbundle entitlements due to the small volume of existing licences, the isolated nature of the system and the possibility of further significant reconfiguration work. The Wimmera system mainly supplies small customers of Grampians Wimmera Mallee Water, which holds the primary rights on behalf of its customers.</p>

Information and reporting requirements		
<p>D5 Provide information on water access rights and water trade rules.</p> <p><i>Applicable to Schedule 12, Matter 16 and BPIA 31.1</i></p>	<p>D5a) Has the Basin State made any changes to the water access rights displayed on the MDBA's Water Market products page? If so what documentation has been provided to the MDBA with the updated information as required under s12.43?</p> <p>D5b) Has the Basin State implemented any new trade rules that regulate the trade of tradable water access rights? If so have they provided these rules to the MDBA as required under s12.46?</p>	<p>There has been no change to any Victorian water access rights displayed on the MDBA's Water Market products page. As requested by the MDBA, Victoria provided the required information about water access rights in an iterative process during May and June 2014 (refer to BP s12.43 and s12.44). Victoria provided all required information about trading rules (BP s12.46) to the MDBA in a letter dated 9 July 2014.</p> <p>There has been no change to the Victorian trading rules since 1 July 2014.</p> <p>Victoria is also continuing to work on developing new information products to continue to improve our leading market information on trade opportunities and limits and expect to have new information released publicly during 2018-19.</p>
<p>D6 Report trade prices</p> <p><i>Applicable to Schedule 12, Matter 16 and BPIA 31.2</i></p>	<p>D6 Has the Basin State sold water in the previous year? If so, did they notify the approval or registration authority of the price agreed for the trade?</p>	<p>Victorian water corporations and the VEWH participate in water trade. As with all Victorian water trade applications, their applications require notification of the price (or value) on trade application forms, including the forms for water share and allocation trade applications. These are available on the Victorian Water Register and are cross linked to water corporation websites at: http://waterregister.vic.gov.au/about/forms-and-fees.</p>

E. Sustainable diversion limits

Reporting Matter	Reporting Requirement (Supporting evidence to be provided by Basin States)	Response (response/milestone achievement/compliance status)
<p>E1 Provide advice of actions undertaken to support Commonwealth measures to acquire water for environmental purposes.</p> <p><i>Applicable to NPA 6c</i></p>	<p>E1 Confirmation that no action has been taken to impede Commonwealth measures to acquire water for environmental purposes, except where consistent with the Basin Plan water trading rules.</p> <p>DAWR guidance - reporting may include:</p> <ul style="list-style-type: none"> - Where further water recovery is required to Bridge the Gap, provide evidence of support for Commonwealth measures to acquire water for environmental purposes, such as actions to support Commonwealth funded infrastructure programs and strategic water purchases. - Where support was not provided for a water recovery program, please provide an explanatory statement. - Reporting is only required in cases where further water recovery is required and water recovery programs have not achieved their water recovery targets. - Evidence of support that state led (Commonwealth funded) projects have been managed in way that supported the recovery of water. 	<p>Victoria is committed to meeting our water recovery target of 1,075.3 GL. Victoria has been actively working to ensure our water recovery target is met. Victoria has delivered or contracted to deliver more than 800 GL of this target. The following water recovery projects progressed in the 2017-18 year:</p> <p>Goulburn-Murray Water (GMW) Connections:</p> <p>The \$2 Billion GMW Connections project is a Commonwealth and state funded project that will deliver modernised rural water irrigation infrastructure that benefits irrigators, community and the environment. This project is the most significant investment in modernising irrigation infrastructure in Australia. The project will recover 429 GL of water savings and provide a significant economic boost for the Goulburn-Murray Irrigation District. As at 30 June 2018, the project is 75% complete, has installed 4,865 outlets, decommissioned 641 km of channels, and updated 2,811 landowners' irrigation outlets. The project continues to meet its water savings targets in a way that improves supply to irrigators and supports productive agriculture, jobs and communities in the region.</p> <p>Victorian Farm Modernisation Project (VFMP):</p> <p>Victoria will not proceed with Tranche 3 of the VFMP, following a review into the project. The VFMP review was conducted in response to growing concern about the socio-economic impacts of recovering water through transfers of entitlement, as well as low irrigator subscription to the program, despite multiple rounds of expressions of interest. The review also included Victoria's socio-economic studies and documented concerns around how changing climate, drier conditions and reduced inflows were having an impact on land and water use in northern Victoria. The review of the VFMP was completed and released publicly in August 2018.</p> <p>A copy of the report has been provided to the Commonwealth government. The Commonwealth government has acknowledged Victoria's position and relieved the state of recovering the balance of water proposed at the time the project was instigated.</p> <p>Nonetheless as stated above, we remain committed to recovering 1,075.3 GL.</p> <p>Supply Measure Projects:</p> <p>The other component of Victoria's contribution to meeting water recovery targets is the supply measure projects under the Sustainable Diversion Limit Adjustment Mechanism, and efficiency measure projects to ensure the full 605 GL supply contribution is realised.</p> <p>Victoria is a proponent or co-proponent of 22 of the 36 notified supply measures agreed by the Ministerial Council (MINCo) in June 2017. In 2017-18, Victoria continues to work with the Commonwealth towards a funding agreement for these projects, to ensure they are implemented as soon as possible.</p> <p>For the full 605 GL SDL adjustment to be realised, 62 GL must be recovered through efficiency measures. Victoria has been actively seeking projects to contribute to the 5%. The Victorian Government has written to water corporations and Catchment Management Authorities in Victoria's Murray Darling Basin, during the 2017-2018 year, seeking ideas for new water savings projects. As agreed at MINCo, Victoria is developing a range of projects to deliver up to 9 GL to contribute towards the 62GL requirement</p> <p>Consistent with the MINCo decision in June 2018, the Victorian government is working with southern basin jurisdictions to develop socio-economic criteria beyond participation to inform additional water recovery as part of the Basin Plan efficiency measures. Discussions with jurisdictions and initial stages of this work commenced during the 2017-2018 year, with detailed development of socio-economic criteria and consultation with the broader community to progress into the 2018-19 year.</p>

F. SDL Adjustment & Constraints Management

Reporting Matter	Reporting Requirement (Supporting evidence to be provided by Basin States)	Response (response/milestone achievement/compliance status)
<p>F1: Develop constraint management proposals.</p> <p><i>Applicable to NPA 7, BPIA 14.2</i></p>	<p>F1 Describe progress in the further development of the Ministerial Council agreed package of constraints proposals and in addressing issues identified in the phased assessment process.</p> <p>F2 Describe progress towards the successful implementation of constraints measures by 2024, including coordinated cross-jurisdictional activities and community involvement, to enable flow rates of up to 80,000ML per day at the South Australian border.</p>	<p>In line with the Ministerial Council decision on the SDL adjustment package in June 2017, Victoria prepared and submitted a new Goulburn Constraints Measure business case to SDLAAC in September 2017. As at 30 June 2018, the business case evaluation process was still underway. Once this process is completed and the project has progressed to Phase 3, Victoria can seek funding from the Commonwealth for implementation.</p> <p>The Victorian Government has worked collaboratively with the MDBA and other Basin states in progressing the implementation of Constraints proposals. Victoria is an active member on the multijurisdictional Constraints Measures Working Group, which has met six times during 2017-18 to develop an integrated Constraints Measures Workplan, as requested by Ministerial Council.</p> <p>Limited progress has occurred on the implementation of Victoria's constraints measures during 2017/18, primarily due to the higher level processes underway throughout the year, including:</p> <ul style="list-style-type: none"> the MDBA's SDL adjustment determination and associated public consultation process; the disallowance motion in Commonwealth Parliament, tabled in February 2018; negotiations with the Commonwealth regarding funding for pre-construction activities for Victoria's nine environmental works-based supply measures. <p>Preliminary discussions commenced with NSW in late 2017-18 regarding development of a coordinated workplan and seed funding application for the Hume to Yarrawonga constraints measure.</p>

G. Critical Human Water Needs

Reporting Matter	Reporting Requirement (Supporting evidence to be provided by Basin States)	Response (response/milestone achievement/compliance status)
<p>G1 Consider the water available for critical human water needs before allocating water to other uses.</p> <p><i>Applicable to BPIA 27.1</i></p>	<p>G1 The MDBA will provide New South Wales, Victoria and South Australia with Water Resource Assessments, from which the States make decisions about allocations. Assessments will be provided at least monthly, and more frequently if conditions warrant.</p>	<p>GMW, as delegated Resource Manager for the Victorian Murray regulated water system, set aside 77 gigalitres in the Victorian share of Dartmouth Reservoir for Victorian critical human water needs during 2017/18.</p> <p>GMW formally notified the MDBA of this action on 24 May 2017.</p>
<p>G2 Make decisions on allocations.</p> <p><i>Applicable to BPIA 27.2</i></p>	<p>G2 During periods of Tier 3 water sharing arrangements, the MDBA will provide the Ministerial Council with Water Resource Assessments, from which New South Wales, Victoria and South Australia make decisions about allocations when determining if water can be made available for uses other than critical human water. Assessments will be provided at least monthly, and more frequently if conditions warrant.</p> <p>A Basin State must have regard to advice from the Authority regarding the volume of water to be made available to it in a particular year, when making decisions about whether water is made available for uses other than meeting critical human water needs (s11.08(3)).</p>	<p>Tier 3 water sharing arrangements were not triggered in 2017/18.</p>
<p>G3 Determine whether the trigger is reached and Tier 3 applies.</p> <p><i>Applicable to BPIA 28.1</i></p>	<p>G3 The MDBA, through the preparation of the Water Resource Assessment will determine if the appropriate conditions apply. If New South Wales, Victoria or South Australia considers the triggers have been reached, its BOC member should advise the Executive Director, River Management Division, MDBA. The Guideline for triggers and processes for changing water sharing Tiers provides more information on how the MDBA will communicate a change in water sharing arrangements to the Basin States, CEWH and the Department.</p> <p>Please indicate if a trigger was reached and what action was taken to implement water sharing arrangements.</p>	<p>Tier 3 water sharing arrangements were not triggered in 2017/18.</p>

H. Water Resource Plans

Reporting Matter	Reporting Requirement (Supporting evidence to be provided by Basin States)	Response (response/milestone achievement/compliance status)
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<p>H1 Develop water resource plans for accreditation</p> <p><i>Applicable to overall NPA assessment and BPIA 24.1</i></p>	<p>H1 This reporting is optional. Basin states may choose to comment on their progress where this differs, or is expected to differ, from the most recent MDBA quarterly report on WRP development</p> <p>Progress with the development of water resource plans for accreditation is currently being reported by the MDBA, through quarterly jurisdictional reports to the Basin Plan Implementation Committee and DAWR will rely on reporting through BPIC. States only need to report where they wish to add further detail or clarification. Applicable to overall NPA assessment of progress as flagged in the 2016-17 NPA assessment.</p>	<p>Victoria submitted its Wimmera-Mallee Water Resource Plan for accreditation to the MDBA on 29 June 2018. The Plan was developed to provide a response to Basin Plan requirements for the Wimmera-Mallee (surface water) water resource plan area and the Wimmera-Mallee (groundwater) water resource plan area. The Plan is awaiting formal review from the MDBA. The Plan was submitted following extensive consultation with the MDBA regarding accredited text and supplementary material requirements to support a recommendation for accreditation.</p> <p>Work on the Northern Victoria Water Resource Plan, which covers the remaining three areas has been progressed in 17-18. Victoria is on track to deliver within the agreed timeframe.</p>
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Attachment A: B4 - Basin Environmental Watering Priorities (BAEWP) for reference in reporting why watering not undertaken in accordance, under BPs8.44

The table below provides a reference for exception-based reporting under BPs8.44 at sB4b of this annual reporting template. The table lists Basin annual environmental watering priorities for 2017-18 and the relevant jurisdiction.

Themes	Basin annual environmental watering priorities for 2017-18 (further details of the priorities are located in the report 'Basin environmental watering priorities – Overview and technical summaries – 30 June 2017' https://www.mdba.gov.au/sites/default/files/pubs/e-water-priorities-2017-18.pdf)	Relevant jurisdiction
Fish	1. (FISH) Southern Basin : Support Basin-scale population recovery of native fish by reinstating flows that promote key ecological processes across local, regional and system scales for the southern connected Basin.	NSW, Vic, SA, CEWH and TLM
	2. (FISH) Barwon–Darling : Improve flow regimes and connectivity to maximise the ecological function of the Barwon–Darling river system for native fish.	NSW, Qld and CEWH
	3. (FISH) Whole of Basin : Support viable populations of threatened native fish and maximise opportunities for range expansion and the establishment of new populations.	NSW, Vic, Qld, SA, ACT, CEWH and TLM
Waterbirds* See Notes for relevant waterbird management strategy 3-8	4.a (BIRD) Narran Lakes: Improve the abundance and diversity of the Basin's waterbird population by using the following waterbird management strategies: 3, 4, 5 and 7 [moderate water resource availability scenario]*	Qld, NSW and CEWH
	4.b (BIRD) Gwydir Wetlands: Improve the abundance and diversity of the Basin's waterbird population by using the following waterbird management strategies: 3 and 6 [wet water resource availability scenario]*	NSW and CEWH
	4.c (BIRD) Macquarie Marshes: Improve the abundance and diversity of the Basin's waterbird population by using the following waterbird management strategies: 3, 6 and 7 [wet water resource availability scenario]*	NSW and CEWH
	4.d (BIRD) Booligal Wetlands: Improve the abundance and diversity of the Basin's waterbird population by using the following waterbird management strategies: 3, 7 and 8 [very wet water resource availability scenario]*	NSW and CEWH
	4.e (BIRD) Great Cumbung Swamp: Improve the abundance and diversity of the Basin's waterbird population by using the following waterbird management strategies: 3, 7 and 8 [very wet water resource availability scenario]*	NSW and CEWH
	4.f (BIRD) Lake Brewster: Improve the abundance and diversity of the Basin's waterbird population by using the following waterbird management strategies: 3, 7 and 8 [very wet water resource availability scenario]*	NSW and CEWH
	4.g (BIRD) Fivebough Swamp: Improve the abundance and diversity of the Basin's waterbird population by using the following waterbird management strategies: 7 [wet water resource availability scenario]*	NSW and CEWH
	4.h (BIRD) Lowbidgee Floodplain: Improve the abundance and diversity of the Basin's waterbird population by using the following waterbird management strategies: 3, 6 and 7 [wet water resource availability scenario]*	NSW and CEWH
	4.i (BIRD) Gunbower-Koondrook-Perricoota: Improve the abundance and diversity of the Basin's waterbird population by using the following waterbird management strategies: 3, 6 and 7 [wet water resource availability scenario]*	NSW, Vic, CEWH and TLM

	4.j (BIRD) Kerang Wetlands: Improve the abundance and diversity of the Basin's waterbird population by using the following waterbird management strategies: 3, 6 and 7 [wet water resource availability scenario]*	Vic and CEWH
	4.k (BIRD) River Murray & Euston Lakes: Improve the abundance and diversity of the Basin's waterbird population by using the following waterbird management strategies: 7 [wet water resource availability scenario]*	NSW, Vic, CEWH and TLM
	4.l (BIRD) Darling Anabranch: Improve the abundance and diversity of the Basin's waterbird population by using the following waterbird management strategies: 7 [moderate water resource availability scenario]*	NSW, CEWH and TLM
	4.m (BIRD) Lindsay-Walpolla-Chowilla: Improve the abundance and diversity of the Basin's waterbird population by using the following waterbird management strategies: 7 [wet water resource availability scenario]*	SA, NSW, Vic, CEWH and TLM
	4.n (BIRD) Barmah–Millewa: Improve the abundance and diversity of the Basin's waterbird population by using the following waterbird management strategies: 3, 6 and 7 [wet water resource availability scenario]*	NSW, Vic, CEWH and TLM
	4.o (BIRD) Corop Wetlands: Improve the abundance and diversity of the Basin's waterbird population by using the following waterbird management strategies: 7 [wet water resource availability scenario]*	Vic and CEWH
	4.p (BIRD) Pyap Lagoon: Improve the abundance and diversity of the Basin's waterbird population by using the following waterbird management strategies: 7 [wet water resource availability scenario]*	SA and CEWH
	4.q (BIRD) Hattah Lakes: Improve the abundance and diversity of the Basin's waterbird population by using the following waterbird management strategies: 3, 6 and 7 [wet water resource availability scenario]*	Vic, CEWH and TLM
	4.r (BIRD) Lake Buloke: Improve the abundance and diversity of the Basin's waterbird population by using the following waterbird management strategies: 7 [wet water resource availability scenario]*	Vic and CEWH
	4.s (BIRD) Coorong: Improve the abundance and diversity of the Basin's waterbird population by using the following waterbird management strategies: 3, 6 and 7 [wet water resource availability scenario]*	SA, CEWH and TLM
	4.t (BIRD) Other Sites: Improve the abundance and diversity of the Basin's waterbird population.	NSW, Vic Qld, SA, ACT, CEWH and TLM
Vegetation	5. (VEG) Whole of Basin: Enable recruitment of trees and support growth of understorey species within river red gum, black box and coolibah communities on floodplains that received overbank flooding during 2016 by inundating the floodplains again.	NSW, Vic Qld, SA, ACT, CEWH and TLM
	6. (VEG) Barmah–Millewa Forest: Improve the condition and extent of Moira grass in Barmah–Millewa Forest. Refer to table 6 of the Identifying which priority to employ will depend on the resource availability scenario as set out in Table 6 of the ' Basin environmental watering priorities – Overview and technical summaries – 30 June 2017 ' report. [wet water resource availability scenario]	NSW, Vic, CEWH and TLM
Flows and connectivity	7. (FLOW) Coorong, Lower Lakes and Murray Mouth: Improve connectivity between freshwater, estuarine and marine environments and improve habitat conditions in the Coorong by optimising and managing inflows through the Lower Lakes. Not all priorities are relevant in each water year. Identifying which priorities to employ will depend on the resource availability scenario, as set out in Table 7 of the ' Basin environmental watering priorities – Overview and technical summaries – 30 June 2017 ' report, and the condition of the Coorong, Lower Lakes and Murray Mouth. [wet water	SA, CEWH and TLM

	resource availability scenario]	
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*Note: Waterbird management strategies:

1. Avoid critical loss of foraging and roosting habitat (*note: N/A for 2017-18 priorities*)
2. Maintain foraging and roosting habitat (*note: N/A for 2017-18 priorities*)
3. Support naturally triggered breeding.
4. Maintain breeding habitat in 'event ready' condition.
5. Trigger and support small-to-moderate breeding events.
6. Trigger and provide ongoing support for small-to-moderate scale breeding across functional feeding groups.
7. Create a mosaic of wetlands habitat types.
8. Improve opportunities for large-scale breeding for colonial nesting waterbird