Information collection template for water year 2017-18

Table of Contents

The Commonwealth Environmental Water Holder (CEWH) 2017-18 annual report to satisfy reporting obligations for:

- Basin Plan Schedule 12 responses (except Matter 9 – use of environmental water which is reported separately)
- Basin Plan Implementation Agreement (BPIA) self-assessment of compliance with implementation tasks

Reporting context

This template address the CEWH's information reporting requirements for the 2017-18 reporting year. It meets the reporting obligations for Basin Plan Schedule 12 and for the Basin Plan Implementation Agreement reporting and compliance requirements (Statement of Assurance).

Reporting for Schedule 12 Matter 9 regarding the identification and use of environmental water is reported elsewhere (indicators 9.1 and 9.2, are reported through existing Water Act s71 and s32 reporting requirements and Matter 9, indicator 9.3, is reported through the *Matter 9.3 reporting template*).

In completing the template you are encouraged to refer to previously published material where appropriate, so as to maintain consistency and minimise any additional reporting burden.

A. Local Knowledge and Stakeholder Engagement

Reporting Matter	Supporting evidence to be provided by the CEWH	Response/milestone achievement and compliance status
The extent to which local knowledge and solutions inform the implementation of the Basin Plan.		
AThe outcome of engagement on the implementation of the Basin Plan *Applicable to Schedule 12, Matter 6, Indicator 6.1 and NPA 8e*	Please describe the process and outcomes of local engagement for key BP implementation activities in 2017-18 as follows: **Environmental watering:** • 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: o the views of local communities and persons materially affected by the management of environmental water (BP8.39 and NPA 8e) o indigenous values (BP8.35)	The Commonwealth Environmental Water Holder maintains a number of processes to engage with local stakeholders and include their knowledge, views and solutions into the planning and delivery of environmental water. This includes providing opportunities to: • identify environmental water needs and the potential to achieve multiple benefits (such as social, cultural and economic benefits); • identify any potential risks, including third-party impacts; • partake in monitoring the environmental outcomes resulting from environmental water; • support adaptive management through informing water managers of emerging opportunities during the watering year. Each year the Commonwealth Environmental Water Office develops portfolio management plans for catchments across the Murray-Darling Basin. During the development of these plans, staff liaise closely with external stakeholders to assist with identifying appropriate objectives and outcomes to be targeted during the watering year. In particular, state agencies including catchment management authorities, the Office of Environment and Heritage, the Victorian Environmental Water Holder and the South Australian Department of Environment Water and Resources play important

		roles in relaying local and state-based information to the Commonwealth Environmental Water Office on conditions and opportunities that Commonwealth environmental water could target. The Commonwealth Environmental Water Holder also receives input through site visits by staff, Environmental Watering Advisory Groups (EWAGs), Indigenous groups and other state government arrangements and processes. The Commonwealth Environmental Water Holder is supported in these engagement activities by the Commonwealth Environmental Water Office, which includes six local engagement officers who live and work in the Basin. During the watering year, Commonwealth Environmental Water Office staff continue to engage with stakeholders across the Basin. Delivery officers within the Commonwealth Environmental Water Office have built strong relationships with key stakeholders throughout local communities. These relationships allow feedback to be provided to the Commonwealth Environmental Water Office in decision-making and for stakeholders to made aware of the detailed implications of the delivery of environmental water. This often occurs via ad hoc feedback such as emails and phone calls but also through more formalised community forums. Representatives from the Commonwealth Environmental Water Office also attend broader community events such as the Murray Darling Association conference which allow face to face feedback to be provided by stakeholders from right across the Murray-darling Basin. **<u>Case Studies</u>** In the Edward-Wakool system, 2017-18 Commonwealth environmental watering was delivered after negotiation with local community representatives as part of the Edward-Wakool Environmental Water Reference Group which was established to provide a

		local voice in the use of environmental flows in the Edward-Wakool river systems. Local community members that provide input to this group include landholders and representatives from angling groups, irrigation peak bodies, Indigenous representatives and state government agencies. In the initial stages, planning for environmental flows was informed through discussions with representatives of the Reference Group. As the watering year progressed, state water managers including from Office of Environment and Heritage worked with both the Commonwealth Environmental Water Office and local landholders in adaptively managing environmental flows. It was identified during 2017-18 watering that there were water quality issues arising in Tuppal Creek, part of the Edward-Wakool system. NSW Office of Environment and Heritage advised landholders that flows through Tuppal Creek would cease until this issue was resolved. The Office of Environment and Heritage and the Commonwealth Environmental Water Office worked with landholders in re-starting the flows to minimise the risks of negative impacts on 3rd parties. Landholders were supportive of the flows and collaborated on information through the Reference Group to be made publicly available to the wider local community. In South Australia, the delivery of Commonwealth environmental water in the Coorong, Lower Lakes and Murray Mouth was adaptively managed after the community, scientists and river/infrastructure operators provided local input which identified an opportunity to achieve black bream spawning. This occurred through the inaugural joint meeting of the Coorong, Lower Lakes, Murray Mouth Community Advisory Panel and Scientific Advisory Group. During this joint meeting, commercial fishers notified the South Australian Department of Environment and Water that adult female black bream had been seen below the barrages and that they were ready to spawn. Delivery officers with the Commonwealth Environmental Water Office worked closely with local

		scientists, state agencies and the community to design the delivery of Commonwealth environmental water through the SA barrages to take advantage of this unique opportunity to support this native fish species. **Indigenous values** The Commonwealth Environmental Water Holder is partnering with representatives of Indigenous communities and organisations to get environmental, as well as, cultural benefits from the delivery of environmental water. Some of the outcomes that have been achieved so far through the incorporation of Indigenous views in environmental watering include: • Enhancing sites as nesting and breeding areas for wetland birds of cultural significance. • Restoration and maintenance of vegetation with bush medicine, craft, ceremony artefacts and food sources. • Vegetation outcomes, which can be linked to re-establishing traditional harvest activity of the site, to enable sharing of cultural knowledge, stories and experiences as a community. • Establishing refuge for wildlife in a highly developed and modified landscape (farmland, irrigation, river regulation), including animals of historical and cultural importance. • Supporting cultural management, ongoing protection and preservation of significant sites, including artefact, burial sites and occupation sites, connected to the belief in the continuing spiritual presence of ancestors in the landscape. The Commonwealth Environmental Water Office continues to work closely with a

		number of Indigenous groups across the Basin to both support the delivery of environmental water for the benefit of additional cultural benefits and to help build broader knowledge of the Basin Plan and the Commonwealth Environmental Water Holder among Indigenous communities. This includes: • Commonwealth environmental watering at Toogimbie Indigenous Protected Area and Nimmie-Caira in consultation with the Nari Nari Tribal Council; • Collaborative environmental water delivery into the Carrs, Carpitts and Bunberro Creeks system with support from the Tar-Ru Lands Board of Management. Traditional owners from the Tar-Ru Lands have also been involved with monitoring of Wingillie Station and Lucerne Day; • Working with Indigenous representatives at the Gwydir Wetlands, Macquarie Marshes, and in the Lachlan River through Environmental Water Advisory Groups. As more knowledge of traditional values becomes available, there will be further opportunities for the Commonwealth Environmental Water Holder to undertake watering that has greater co-benefits for Traditional Owners. The Commonwealth Environmental Water Holder provided significant financial support to the National Cultural Flows Research Project which recently finalised its findings and has published guidance which will support aligning environmental watering and cultural flows where appropriate. The Commonwealth Environmental Water Office is actively investigating the best methods to expand its engagement with Indigenous communities on Commonwealth environmental watering. Staff within the Commonwealth Environmental Water Office are discussing potential watering sites and opportunities with a range of Indigenous communities and groups across the Basin and expects that there will be significant progress made in 2018-19.

B. Environmental Watering

Reporting Matter	Supporting evidence to be provided by the CEWH	Response/milestone achievement and compliance status
The implementation of the environmental management framework (Chapter 8, Part 4)		
B1 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) *Applicable to Schedule 12 Matter 10, Indicator 10.2*	Please describe progress in coordination, consultation or cooperation issues with other Basin jurisdictions in the management and delivery of environmental water and opportunities for further improvement.	The Commonwealth Environmental Water Holder operates consistent with Part 4 of Chapter 8 of the Basin Plan. The Commonwealth Environmental Water Office works closely in partnership with state government agencies, water authorities, industry groups, scientists, non-government organisations and community groups. Relationships between Federal, state and local governments have continued to grow and there has been a number of watering events which demonstrate the upward trend in coordination and cooperation. **Northern Basin Case Study** In early 2018, over 1,000 kilometers of the Barwon-Darling River downstream of Brewarrina ceased to flow. As a result, water quality deteriorated in stagnant waterholes. Blue-green algae alerts were escalated to amber and red along the Barwon-Darling with local governments expressing concern over the deteriorating water quality. In February and March 2018, rainfall in Queensland resulted in some unregulated flows into the Barwon-Darling which were protected by the NSW government for social reasons including water supply. In April 2018, Commonwealth and NSW environmental water was made available for delivery to create a northern rivers connectivity event which would link river systems and benefit native fish through providing improved food sources and opportunities to move to better habitats. The Commonwealth and New South Wales governments worked together to release around 25 gigalitres of environmental water into the

Reporting Matter	Supporting evidence to be provided by the CEWH	Response/milestone achievement and compliance status
		northern river system after extensive discussions with NSW government, irrigators along the river and local communities. The flow was protected by the New South Wales government through a temporary restriction on pumping and increased compliance activities. Local engagement officers from the Commonwealth Environmental Water Office kept river communities up to date during the flow event, including through community presentations which tracked the progress of the flow through regular and online updates. This was the first time Commonwealth environmental water was protected in the Northern Basin and demonstrated effective collaboration between state agencies in NSW, the Commonwealth and local councils and irrigator groups and the outcomes which could be achieved through the protection of environmental water. The Commonwealth Environmental Water Office is continuing to build on the new relationships, which were formed between the Commonwealth Environmental Water Office and the local community members during this important watering event. **Southern Basin Case Study** In the Southern Basin, environmental water is being coordinated with irrigation water where appropriate to support benefits for a wide range of stakeholders. This cooperation and coordination assists with ensuring that demand for both the irrigation and environment can be met within the operational constraints of the river system. For example, environmental water requirements of the Gunbower Creek have been supplied through a unique approach of using a combination of held environmental water and consumptive water en route to downstream demands. River Murray flows destined for downstream use are routed through Gunbower Creek, providing for the

Reporting Matter	Supporting evidence to be provided by the CEWH	Response/milestone achievement and compliance status
		instream environmental requirements of the creek. Environmental water entitlements are debited the additional 'losses' associated with the change in operational practice. This is an efficient approach, using scheduled environmental water alongside water already in the river for other purposes. The early use of water through the Gunbower Creek (part of the Torrumbarry irrigation system) provides a pre-wetting that has a side-benefit of reducing the operational losses for irrigation water delivery. The approach wouldn't be possible without the consultation, coordination and cooperation which occurs between Goulburn Murray Water, North Central Catchment Management Authority, the Victorian Environmental Water Holder and the Commonwealth Environmental Water Office. This demonstrates how industry and governments across the Murray-Darling Basin are working together to achieve social, economic and environmental benefits through efficient water planning and delivery. **Opportunities for further improvement** The governance arrangements for the delivery of environmental water across multiple state jurisdictions remains complex and requires multiple approvals. State government agencies, including environmental water holders in NSW and Victoria, primarily focus on delivering a broad range of water resource management (including environmental) outcomes in their jurisdiction. The Commonwealth Environmental Water Holder is mandated to deliver on Basin-wide environmental outcomes. There exists the potential that watering priorities between the multiple scales of management and objectives can be misaligned in any given year. The Basin annual priorities developed by the MDBA can guide the alignment of environmental priorities. Continued refinement of this

Reporting Matter	Supporting evidence to be provided by the CEWH	Response/milestone achievement and compliance status
		process will benefit this issue and good relationships are key to working this through. Commonwealth environmental water is physically delivered by river operators within current operating frameworks that apply to all types of water deliveries. Existing frameworks and delivery services were designed to meet the needs of consumptive users and based on state statutory instruments. There is scope for further improvements to realise administrative efficiencies and clearly distinguish the roles of the respective Commonwealth and state agencies and their responsibilities in policy, compliance and operations. This will further build confidence in the local communities that environmental water and water more broadly is being managed effectively by all relevant parties.
B2 How environmental watering principles were applied consistent with Chapter 8, Part 4, Division 6. *Applicable to Matter 10, Indicator 10.3, BPIA Task 33.3*	Provide at least one case study that demonstrates how environmental watering principles were applied and identify the relevant principles.	The Commonwealth Environmental Water Holder uses a number of frameworks and processes to ensure the use of Commonwealth environmental water is undertaken consistent with the *Principles to be applied in environmental watering* as set out in Division 6 of Chapter 8, Part 4. One of the primary mechanism is the *Criteria for Assessing Options for Commonwealth Environmental Water Use* ('the Criteria') which is used to support the planning process and which embodies the principles. This Criteria is an attachment to the *Framework for Determining Commonwealth Environmental Water Use* and is applied for all Commonwealth environmental watering decisions. **Case Study – Black bream spawning in South Australia** In October 2017, an opportunity to support black bream recruitment in the Coorong was identified at an inaugural joint meeting of the Coorong, Lower Lakes, Murray

Reporting Matter	Supporting evidence to be provided by the CEWH	Response/milestone achievement and compliance status
		Mouth Community Advisory Panel and Scientific Advisory Group (Principle 7: Working effectively with local communities). This joint meeting brought together different perspectives from industry and scientific groups who were able to provide advice on an opportunity for environmental water to support black bream spawning. The information provided was used in adaptively managing barrage releases to support conditions for black bream spawning at the right time as recommended by scientific experts. Barrage operators experimented with different barrage configurations to create the most favourable conditions and maximise environmental benefits for the current flow but also to assist with identifying the long-term flow requirements (Principle 3: Maximising environmental benefits; Principle 8: Adaptive Management). The Commonwealth Environmental Water Office, the Murray-Darling Basin Authority and South Australian Department of Environment and Water jointly funded monitoring by SARDI of the barrage releases targeting black bream recruitment over summer 2017. The monitoring indicate that environmental water releases successfully generated suitable spawning and nursery conditions in the Murray estuary and Coorong. Young black bream were detected during subsequent autumn monitoring showing that successful recruitment coincided with environmental water releases. This watering action aligned with a major 2017-18 Basin-wide annual watering priority to 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 (Principle 1: Environmental watering to be undertaken having regard to the Basin annual environmental watering priorities).
Performing functions and exercising powers consistently with the environmental watering plan (ss8.03, 8.25, 8.33-8.41, 8.44)		
B3 Perform functions and exercise powers in a way that	**Responses should address the following requirement(s) as outlined in the Basin Plan Implementation Agreement:**	The Commonwealth Environmental Water Holder preforms its functions and exercises

Reporting Matter	Supporting evidence to be provided by the CEWH	Response/milestone achievement and compliance status
is consistent with the Basin Plan environmental watering plan. *Applicable to BPIA Task 33.1*	The CEWH will review its operations to ensure its functions and powers are exercised in a way that is consistent with the environmental watering plan. This includes acting consistently with the principles to be applied in environmental watering. The CEWH will publish an outcomes framework for environmental watering, which will be reviewed from time to time, that outlines how the expected outcomes from environmental water use will contribute to the achievement of, and be consistent with, the objectives of the environmental watering plan. The CEWH has published a framework and set of criteria that outlines how Commonwealth environmental water use decisions are made, including how this is undertaken consistent with the principles to be applied in environmental watering. The framework and criteria will be reviewed (and if necessary, revised) from time to time, with opportunities for the MDBA and Basin States, or stakeholders, to provide feedback at any time. The CEWH will maximise the environmental benefits and effectiveness of Commonwealth environmental watering through coordinating its use with other environmental water holders and managers of planned environmental water. The CEWH will co-convene with the MDBA, the Environmental Water Holders and River Operators Coordination Forum as referenced in this Agreement, which will support the coordination of environmental water delivery in the southern-connected Basin. The CEWH will participate in Operational Advisory Group(s) (OAG) as necessary and to the extent that the OAG's functions relate to the CEWH's statutory functions. Coordinated use will also occur on an ongoing basis among relevant parties outside of the Forum, subject to bilateral or multilateral need. The CEWH will maintain mechanisms for local communities to put forward proposals for Commonwealth environmental water use. These mechanisms will include: • discussing proposals directly with staff of the Commonwealth Environmental Water Office, including regionally-based local engagement officers; • submitting a proposal via the CEWH's website; and	its power in a way that is consistent with the Basin Plan environmental watering plan. The Commonwealth Environmental Water Holder has a number of frameworks and processes to ensure the use of Commonwealth environmental water is undertaken consistent with the Basin Plan environmental watering plan. This includes the: • *Commonwealth Environmental Watering Outcomes Framework* (http://www.environment.gov.au/water/cewo/publications/environmental-water-outcomes-framework), which sets out how Commonwealth environmental water contributes to the objectives of the environmental watering plan; • Commonwealth environmental water portfolio managements plans, which identify the relevant long-term outcomes from the Basin-wide environmental watering strategy that Commonwealth environmental water contributes to by catchment • *The Criteria for Assessing Options for Commonwealth Environmental Water Use*, which are a component of the *Framework for Determining Commonwealth Environmental Water Use*. All Commonwealth environmental watering decisions are assessed against the criteria, which are the primary mechanism through which the Commonwealth Environmental Water Holder acts in accordance with the *Principles to be applied in environmental watering*. *The Criteria for Assessing Options for Commonwealth Environmental Water Use* is available at http://www.environment.gov.au/water/cewo/publications/criteria-assessing-options-cew-use

Reporting Matter	Supporting evidence to be provided by the CEWH	Response/milestone achievement and compliance status
	• through relevant Basin State engagement mechanisms. Proposals received through these mechanisms will be assessed in accordance with the CEWH's published framework and criteria for determining Commonwealth environmental water use and considered in collaboration with relevant Basin State delivery partners. The CEWH will work with the MDBA, Basin States, Indigenous representative bodies, such as the Northern Basin Aboriginal Nations (NBAN) and the Murray Lower Darling Rivers Indigenous Nations (MLDRIN), and Indigenous communities to explore the need for additional mechanisms for engaging specifically with Indigenous communities, particularly in relation to potential opportunities for environmental water use to achieve mutual environmental and cultural outcomes.	**Review of the Commonwealth Environmental Water Holder's operations and business processes** In November 2017, an independent review of the Commonwealth Environmental Water Holder's operations, business processes and frameworks was finalised by Dr Neil Byron and a supporting review panel. The Review concluded that "there is little need for, or obvious potential for, improvements to the internal business processes, except as they relate to external relationships with stakeholders". So while all our portfolio management activities were concluded to be sound and effective, the Review identified some opportunities for improvement through building a network of supporters by deepening relationships and fostering a greater understanding of the Commonwealth Environmental Water Holder's efforts to restore the Basin among local communities. While the Review was not specific to the Basin-wide environmental watering strategy, the outcomes demonstrate that the Commonwealth Environmental Water Holder fosters an environment of continuous improvement of business processes to ensure all legislative requirements are met and Commonwealth environmental watering is carried out with maximum efficiency. More information on the Commonwealth Environmental Water Holder Review can be found at: http://www.environment.gov.au/water/cewo/publications/cewo-review-final-report The Commonwealth Environmental Water Holder, the Victorian Environmental Water Holder and the Office of Environment and Heritage and the Murray-Darling Basin Authority work closely together to ensure that environmental water is coordinated and delivered together to maximise environmental benefits and effectiveness of

Reporting Matter	Supporting evidence to be provided by the CEWH	Response/milestone achievement and compliance status
		environmental watering. Representatives from the Commonwealth Environmental Water Office provides advice to and attends numerous committees and workgroups regarding the management of environmental water and the implementation of the Murray-Darling Basin Plan including: a) Operational Advisory Groups b) Southern Connected Basin Environmental Water Committee (SCBEWC) c) Environmental Watering Working Group (EWWG) d) Water Liaison Working Group (WLWG) e) River Murray Operations Committee (RMOC) Recently, there has been an increased frequency in joint meetings between Southern Connected Basin Environmental Water Committee and Water Liaison Working Group which is assisting with improved coordination between river operations and environmental watering. The Commonwealth Environmental Water Holder maintains mechanisms for local communities to put forward proposals for Commonwealth environmental water use on the Commonwealth Environmental Water Office's website through both phone and email. The Commonwealth Environmental Water Office also facilitates local engagement through representation at Environmental Water Advisory Groups, Environmental Water Reference Groups and other community forums and events. The Commonwealth Environmental Water Office's local engagement officers proactively engage with community members and attend relevant on the ground events. All local engagement officers contact details are available on the website: http://www.environment.gov.au/water/cewo/local-engagement Proposals are assessed in accordance with the Commonwealth Environmental Water

Reporting Matter	Supporting evidence to be provided by the CEWH	Response/milestone achievement and compliance status
		Holder's published framework and criteria (included above) during planning and decision-making processes for the use of environmental water. The Commonwealth Environmental Water Office works closely with the Northern Basin Aboriginal Nations (NBAN) and the Murray Lower Darling River Indigenous Nations (MLDRIN). The Commonwealth Environmental Water Office is looking to broaden its engagement with Indigenous peoples outside of these groups and of current partnerships to progressively incorporate increased cultural values into watering decisions. Identifying additional mechanisms and opportunities for the Commonwealth Environmental Water Office to work with Indigenous communities in achieving mutual environmental and cultural outcomes is a high priority. It is expected that the recent launch of the findings of the National Cultural Flows Research Project and the additional funding being provided to Indigenous communities through Basin Plan processes will assist Indigenous peoples in identifying preferred options for additional mechanisms and potential opportunities for environmental water managers to work more closely in delivering on environmental and cultural benefits.
B4 Perform its functions and exercise its powers in a way that is consistent with the Basin-wide environmental watering strategy. *Applicable to BPIA Task 33.2*	**Responses should address the following requirement(s) as outlined in the Basin Plan Implementation Agreement:** Following the finalisation of the Basin-wide environmental watering strategy, the CEWH will review its operations to ensure its functions and powers are exercised consistently with the Basin-wide environmental watering strategy.	The Commonwealth Environmental Water Holder performs its functions and exercises its power consistent with the Basin-wide environmental watering strategy ('the Strategy'). **Planning** Portfolio management planning is undertaken prior to the start of each water year. The approach includes the identification of how short-term outcomes (<1 and 1-5 years) from environmental water contribute to the long-term (10+ years) in the Strategy and Basin Plan.

Reporting Matter	Supporting evidence to be provided by the CEWH	Response/milestone achievement and compliance status
		Portfolio management plans are produced for each catchment and identify the relevant long-term outcomes from the Strategy that Commonwealth environmental water will be contributing to in that catchment. **Decision-Making** The Criteria for Assessing Options for Commonwealth Environmental Water Use is applied for all Commonwealth environmental watering decisions. Assessment against the criteria includes a description of how a watering action contributes to the achievement of outcomes listed in the Strategy (and applies any of the relevant management strategies). See also description against *Principles to be applied to environmental watering* for further descriptions of the way in which the Commonwealth Environmental Water Holder applies the management strategies identified in the Strategy.
B5 Give information relating to expected holdings of held environmental water. *Applicable to BPIA Task 33.4 and Matter 10, Indicator 10.1*	**Responses should address the following requirement(s) as outlined in the Basin Plan Implementation Agreement:** The CEWH will provide information to the MDBA about expected holdings of held Commonwealth environmental water, including quantities, reliability, security class, licence type, limitations, and other characteristics. The CEWH will report on the Commonwealth environmental holdings each month on its website.	The Commonwealth Environmental Water Holder publishes monthly holding information on the Commonwealth Environmental Water Office's website. This includes holdings against each entitlement type leading the way in public transparency. The monthly holdings update is available on the website at http://www.environment.gov.au/water/cewo/about/water-holdings. Holding information is also provided to the Department of Agriculture and Water Resources and the Murray-Darling Basin Authority.
B6 Have regard to the Basin annual environmental watering priorities when performing functions and exercising powers and report when they	**Responses should address the following requirement(s) as outlined in the Basin Plan Implementation Agreement:** The CEWH will have regard to the Basin annual environmental watering priorities. Please provide reasons for any environmental watering that was not in accordance with	The Commonwealth Environmental Water Holder had regard for the Basin annual watering priorities in all environmental watering that was undertaken during the 2017-18 watering year.

Reporting Matter	Supporting evidence to be provided by the CEWH	Response/milestone achievement and compliance status
were not followed. *Applicable to BPIA Tasks 33.3 and 33.5*	Basin annual watering priorities listed at Att A (partially/fully) in accordance with Section 8.44 of the Basin Plan and Principle 1. The MDBA may publish the statement of reasons on its website.	The achievement of some priorities was limited during the 2017-18 watering year due to water resource availability. For example: • water resource availability and drier conditions meant that delivering water to Narran Lakes to improve the abundance and diversity of the Basin's waterbird population was not possible; • water resource availability and drier conditions restricted delivery to a number of floodplains that had been inundated during 2016.

C. Water Quality and Salinity Management

Reporting Matter	Supporting evidence to be provided by the CEWH	Response/milestone achievement and compliance status
Implementation of the water quality and salinity management plan, including the extent to which regard is had to the targets in Chapter 9 when making flow management decisions.		
C Progress with implementation of the Basin Plan W*ater Quality and Salinity Management Plan* (BP CH9) and outcomes including regard had to the targets in s9.14 when making decisions about the use of environmental water. *Applicable to Schedule 12 Matter 14, Indicator 14.2 and BPIA Task 34.1*	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. In this context, 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.	The Commonwealth Environmental Water Holder had regard to the water quality targets set out in s9.14(5) when making decisions about the use of all Commonwealth environmental water in 2017-18. The Commonwealth Environmental Water Office considers expert regional knowledge, in-field monitoring and salinity forecast modelling to support the planning and active management of Commonwealth environmental water. For every Commonwealth watering action, a risk assessment is undertaken 'including with regard to the Basin Plan's water quality and salinity targets for managing water flows'. These risk assessments are guided by the *Risk Management Guidance for the Use of Commonwealth Environmental Water*, which specifically identifies the potential risks of Commonwealth environmental watering resulting in water quality and salinity targets being exceeded, and provides guidance on mitigation strategies. As part of these risk assessments, contingency planning and procedures for monitoring and operational response to risks are developed and integrated within the delivery arrangements for Commonwealth environmental water use. Delivery arrangements are agreed with state delivery partners through Watering Schedules. These schedules outline the operational strategies and procedures for the management of Commonwealth environmental water, including the on-going assessment and management of water risks where required. In the majority of instances, the provision of environmental water results in significantly improved water quality. Commonwealth environmental water exports large amounts of salt through the River Murray system each year.

Reporting Matter	Supporting evidence to be provided by the CEWH	Response/milestone achievement and compliance status
		In 2017-18, naturally dry conditions resulted in a number of river systems experiencing water quality issues. While Commonwealth environmental water can assist with some water quality issues such as reduced dissolved oxygen (DO) levels, the Commonwealth Environmental Water Holder is mindful of risks such as blue green algal outbreaks being moved to downstream communities so we carefully manage to avoid such situations. **Case Studies** **Goulburn River** In December 2017, rainfall in the Victoria resulted in overbank and near bankfull flows in the Goulburn River. These flows increased the amount of organic matter in the river through inundating floodplains and tributaries. Recognising the risk of decreased dissolved oxygen levels from increase in organic matter and rising summer temperatures, water managers including the Commonwealth Environmental Water Office worked proactively with on the ground managers from the Goulburn Catchment Management Authority and the Victorian Environmental Water Holder to support the delivery of flows which would assist in managing the risk of a hypoxic blackwater event. As the natural flows receded, Commonwealth environmental water recommenced to maintain base flows while environmental water from the Victorian Environmental Water Holder's Water Quality Reserve was delivered across a 10 day period to slow the recession in the peak flow and to increase the flow rate to help dilute organic matter. The coordination between Commonwealth and Victorian environmental water helped stabilise DO levels and supported fish health.

Reporting Matter	Supporting evidence to be provided by the CEWH	Response/milestone achievement and compliance status
		Niemur River In early January 2018, DO monitoring showed that low dissolved oxygen (DO) levels in the Niemur River system were being driven down by a heatwave and threatening large bodied native fish in the system. Commonwealth environmental water was delivered to increase the flow rate and return DO levels back to more sustainable levels for fish health during the period of high daytime temperatures. By early February, Commonwealth environmental water in conjunction with cooler water temperatures returned DO levels to a target level above 4.0 mg/l. The delivery of Commonwealth environmental water ceased after mid-February once DO levels had stabilised above the target. **Edward-Wakool and Lachlan Rivers** The Commonwealth Environmental Water Holder is required to have regard to the recreational water quality targets of the Basin Plan (Section 9.18), which guide the green, amber and red alert levels issued by relevant state management agencies. Because of this, Commonwealth environmental water use has been suspended in a number of catchments during periods of blue green algae red alerts. This reflects a consideration of the risk that the use of water could impact on the water quality of towns and communities located further downstream. During early March 2018 algal red alerts were issued in the NSW Edward-Wakool River and Lachlan River catchments. The use of Commonwealth environmental water was suspended in both of these catchments where there was a risk that the use of Commonwealth environmental water may adversely impact on downstream communities. This suspension was lifted once the relevant algal alert levels had changed from red to amber level of alert. This demonstrates how Commonwealth environmental water is

Reporting Matter	Supporting evidence to be provided by the CEWH	Response/milestone achievement and compliance status
		being adaptively managed in collaboration with other water managers and state agencies to limit any negative impacts of environmental watering on local communities. **Opportunities for further improvements** The Commonwealth Environmental Water Office is working closely with other water managers to discuss improvement for future management of water quality issues. Some of the options being discussed are improvements to gauges for more continuous measurement of dissolved oxygen levels, increasing the number of gauges that measure salinity and better governance of the use of the Water Quality Allowance through the Environmental Water Advisory Group. These improvements are likely to increase capacity to respond to water quality issues.

D. Water Trading

Reporting Matter	Supporting evidence to be provided by the CEWH	Response/milestone achievement and compliance status
Information and reporting requirements (ss12.48, 12.49-12.52)		
D1 Report trade prices. *Applicable to BPIA Task 35.1*	**Responses should address the following requirement(s) as outlined in the Basin Plan Implementation Agreement:** Has the CEWH sold water in the previous year? If so, did they notify the approval or registration authority of the price agreed for the trade? Note: This applies to both entitlement and allocation trades as per section 1.07 (3).	In 2017-18, the Commonwealth Environmental Water Holder sold 6.7 gigalitres of Commonwealth environmental water allocations for a return of $2.878 million. The Commonwealth Environmental Water Holder notified the approval authority of the sale price for allocations traded through the relevant application to trade water forms which must be submitted for a trade to be processed.
D2 Make water announcements generally available. *Applicable to BPIA Task 35.2*	**Responses should address the following requirement(s) as outlined in the Basin Plan Implementation Agreement:** The CEWH will publish its water announcements in a way that makes them likely to be brought to the attention of interested members of the public.	The Commonwealth Environmental Water Holder makes water announcement publically available on the Commonwealth Environmental Water Office's website at - http://www.environment.gov.au/water/cewo/news. Water announcements are also made available on the Commonwealth Environmental Water Holder's twitter account and through other media distribution channels used by the Commonwealth Environmental Water Office including sending out notification emails to subscribers to the Office's distribution lists.
D3 Not trade water if aware of a water announcement before it is made generally available. *Applicable to BPIA Task 35.3*	**Responses should address the following requirement(s) as outlined in the Basin Plan Implementation Agreement:** The CEWH will develop, publish and act consistent with a set of protocols regarding trading of water entitlements and allocations. These protocols will be designed to avoid trading if a situation arose where the CEWH were to become aware of a water announcement that was not generally available and could be reasonably expected to materially affect the price or value of any water access right that is the subject of the water announcement. The CEWH will, where it considers it would be appropriate, develop a trading strategy and will make any such trading	The Commonwealth Environmental Water Holder has not traded water in a situation where it has become aware of a water announcement that was not generally available. The Commonwealth Environmental Water Holder has published the *Commonwealth Environmental Water Trading Framework* which includes operating rules, procedures and protocols. These water trading protocols assist the Commonwealth Environmental Water Holder and staff of the Commonwealth Environmental Water Office to meet their

Reporting Matter	Supporting evidence to be provided by the CEWH	Response/milestone achievement and compliance status
	strategy generally available.	requirements as per the Basin Plan water trading rules. The protocols include Chinese wall arrangements; avoiding exposure to inside information and conflicts of interest; disclosing and managing inside information and conflicts of interest if they arise; record keeping and information and management; being aware of water announcements and decisions to trade; and sanctions for breaches of the APS Code of Conduct. *The Commonwealth Environmental Water Trading Framework* is available at http://www.environment.gov.au/water/cewo/trade/trading-framework Consistent with the framework, the internal 'approach to market' minute and 'trade approval' minute for the trading of Commonwealth environmental water includes checklists to ensure the Basin Plan trade rules are considered as part of the decision making process. The Commonwealth Environmental Water Office also has standard operating procedures for water transfers; a due diligence process for trade; and appropriate delegate approval processes for sign off on transfers and trade. The Department of the Environment and Energy and Commonwealth Water Office also have fraud controls plans in place, with staff instructed in the use of these plans.

E. Operation of Organisation

Reporting Matter	Supporting evidence to be provided by the CEWH	Response/milestone achievement and compliance status
Overview of monitoring and evaluation approach.		
E1 Perform its functions and exercise its powers in a way that is consistent with, and in manner that gives effect to, the principles to be applied in monitoring and evaluating the effectiveness of the Plan. *Applicable to BPIA Task 36.1*	**Responses should address the following requirement(s) as outlined in the Basin Plan Implementation Agreement:** The CEWH will monitor the response to the delivery of Commonwealth environmental water at a number of locations across the Basin between 2014-15 and 2018-19. This long-term intervention monitoring and evaluation program will align with the CEWH's published outcomes framework for environmental watering. Consistent with principles 6 and 8 in Chapter 13 of the Plan, the CEWH will work collaboratively with Basin States and the MDBA and will undertake to both avoid duplication of effort and ensure monitoring is cost-effective and efficient. In particular, the CEWH will rely on monitoring undertaken by the MDBA in relation to the specific objectives in the environmental watering plan for the Lower Lakes and Coorong.	Monitoring and evaluation supports the efficient and effective use water, ensures accountability and transparency, supports adaptive management and helps to build knowledge. It is also critical to the management of Commonwealth environmental water so that outcomes can become known. The Commonwealth Environmental Water Office developed the *Commonwealth Environmental Water Monitoring, Evaluation, Reporting and Improvement (MERI) Framework* to guide monitoring and evaluation activities and ensure we are aligning with and meeting legislative and Basin Plan obligations. Broadly, the Basin Plan establishes the following responsibilities: • The Commonwealth Environmental Water Holder is focussed on monitoring and reporting on the outcomes from Commonwealth environmental watering at the asset and Basin-scale. • Basin States are focussed on monitoring and reporting on the achievement of environment outcomes at the asset scale. • The Murray-Darling Basin Authority is focussed on monitoring and reporting on the achievement of environment outcomes at the Basin-scale. The Commonwealth Environmental Water Holder's Long-Term Intervention Monitoring program has been deliberately designed to complement the activities of other agencies while supporting the Commonwealth Environmental Water Holder's statutory obligations, and informing adaptive management. Commonwealth Environmental Water Office continues to work with colleagues from state government

Reporting Matter	Supporting evidence to be provided by the CEWH	Response/milestone achievement and compliance status
		and the Murray-Darling Basin Authority to ensure the most efficient monitoring programs are in place. • Operational monitoring is undertaken for every Commonwealth environmental watering action, typically by state government delivery partners. It involves collecting on-ground data about the environmental water delivery action such as volumes, timing, duration, location, flow rates and river heights. • Intervention monitoring helps the Commonwealth Environmental Water Office to understand the environmental response to decisions on Commonwealth environmental water use. The Commonwealth Environmental Water Office has been monitoring the short term environmental response of environmental water since 2010. Short term monitoring projects have focussed on determining whether selected watering actions are meeting their intended ecological objectives and understanding the implications for environmental water delivery. The Long Term Intervention Monitoring Project monitors and evaluates the contribution of Commonwealth environmental water delivery in the Basin over 5 years from 2014 to June 2019. The teams implement the monitoring and evaluation plans in seven selected areas within the Basin – the Junction of the Warrego and Darling rivers; Gwydir river system; Lower Lachlan river system; Murrumbidgee river system; Edward-Wakool river system; Goulburn River; and Lower Murray River. These regions provide the maximum coverage possible over areas where Commonwealth environmental watering occurs and complements, rather than duplicates, monitoring activities undertaken by others.

Reporting Matter	Supporting evidence to be provided by the CEWH	Response/milestone achievement and compliance status
		Our monitoring is proving to be fundamental to adaptively managing the sites where environmental water is delivered (both in real-time and learning from watering event to watering event). More than 30 of Australia's leading regional universities and scientific research institutions engaged to undertake monitoring and research regularly discuss what is happening at sites with ourselves and state colleagues, leading to the rapid adoption of knowledge. All monitoring, evaluation and research reports are published on the Commonwealth Environmental Water Office website annually. All monitoring data is publicly available on request for any purpose. The Commonwealth Environmental Water Office acknowledges that further effort is required to communicate outcomes in a format that is more readily accessible to the public. In the 2018-19 watering year, the Commonwealth Environmental Water Office is seeking to extend the Long-Term Intervention Monitoring and Environmental Water Knowledge and Research project monitoring, evaluation and research activities, with some enhancements, under a single integrated program for another two years with an option to extend to three years. A continuation of on-ground monitoring, evaluation and research activities is needed in order to continue to: a) Demonstrate outcomes from Commonwealth environmental water; b) Inform environmental water management; c) Fulfil legislative reporting obligations; and d) Build on our knowledge of the contribution of environmental water to the aquatic health of the Murray-Darling Basin. The Commonwealth Environmental Water Office is seeking to engage organisations

Reporting Matter	Supporting evidence to be provided by the CEWH	Response/milestone achievement and compliance status
		with established teams to: • Develop and implement new Monitoring, Evaluation and Research Plans for each of the seven Selected-Areas that extends Long-Term Intervention Monitoring Project monitoring and incorporates a number of enhancements; and • Develop and implement a new Evaluation and Research Plan for the Basin-Scale that extends Long-Term Intervention Monitoring and Environmental Water Knowledge and Research activities and incorporates a number of enhancements. It is intended to establish eight separate agreements including one for each of the seven Selected Areas and one for the Basin-scale component. Further information on the Long Term Intervention Monitoring project is available at http://www.environment.gov.au/water/cewo/monitoring/ltim-project.
E2 Produce a report on each of the CEWH Category A and Category B matters listed in Schedule 12. *Applicable to BPIA Task 37.1 and 37.2*	**Responses should address the following requirement(s) as outlined in the Basin Plan Implementation Agreement:** **2016-17 reporting year (and five-yearly thereafter):** The CEWH will provide reports in line with the Plan reporting requirements as per Schedule 12 and the guideline. In relation to the first five-yearly reporting requirements under Chapter 13, the parties note that the Basin States and the CEWH will provide reports consistent with proposed arrangements for a transition period to full monitoring and evaluation requirements.	To be pre-filled by the Murray-Darling Basin Authority.

Commented [A1]: As outlined in the template provided by the MDBA

Attachment A: Theme B - 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

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
	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

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
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 resource availability scenario]	SA, CEWH and TLM

*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