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The South Australia 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>Aa) South Australia has used consultation associated with State statutory water planning instruments as the engagement mechanisms for water resource plan development. Significant community consultation and engagement is included as part of the development of water allocation plans and natural resources management plans. There is a statutory minimum two month consultation period which includes invitations to make written submissions and attend public meetings. Where minor amendments have been made to state statutory plans which have not triggered formal consultation requirements, consultation has still occurred in the form of letters to licence holders and presentations to key stakeholder groups such as irrigation trusts, industry groups and local government.</p> <p>South Australia has engaged with Aboriginal Nations across the South Australian Murray-Darling Basin region through an approach developed at the Joint Nations meetings in 2016-17. Each Nation is engaged according to their individual needs, interests and capacity. Nation-level engagement activities have focussed on the review and amendment of water allocation plans, including: Peake Roby Sherlock, Mallee, Eastern Mount Lofty Ranges, Marnie Saunders and River Murray, which required engagement across the Ngarrindjeri, Peramangk, Kurna, Ngadjuri and First Peoples of the River Murray and Mallee Region. This engagement has been done through joint and individual meetings and on-Country workshops facilitated or co-facilitated by Nation representatives. The First Peoples and Ngarrindjeri water coordinators are supported within their Nation organisations to lead the water engagement by their Nation.</p> <p>The South Australian Murray Lower Darling Rivers Indigenous Nations (SA MLDRIN) Working Group, consisting of the five South Australian Aboriginal Nation representatives, provides oversight of the Nation-level engagement as well as high level input into the drafting of water resource plans. The Working Group also informed the review of the water allocation plans and works to prioritise Aboriginal water engagement activities. The final SA MLDRIN Working Group for 2017-18 included a workshop targeted at identifying how the National Cultural Flows Research Project outcomes could be used to pursue Aboriginal Water Objectives in the South Australian context.</p> <p>Ab) The planning and delivery of environmental water in South Australia involves Department for Environment and Water (DEW) staff engaging and consulting with a wide range of agencies and stakeholder groups. These include the following:</p> <ul style="list-style-type: none"> • Coorong, Lower Lakes and Murray Mouth (CLLMM) Community Advisory Group • Lower Lakes, Coorong and Murray Mouth (LLCMM) Scientific Advisory Group • Chowilla Community Reference Committee (CRC) • Ngarrindjeri Regional Authority (NRA) • Mannum Aboriginal Community Association Incorporated (MACAI) • First Peoples of the River Murray and Mallee Region • Regional NRM groups • Landcare groups • Irrigation industry groups • Commonwealth, state and local government organisations (e.g. Commonwealth Environmental Water Office, Local Councils, SA Water, South Australian Environment Protection Authority) • Tourism and recreation groups (boating, recreation and fishing) • Individual landholders that may be impacted through environmental water delivery <p>A case study of demonstrating effective engagement with various stakeholders, to plan and deliver environmental water to the Lower Lakes and Coorong, is presented below.</p> <p>Case Study – Collaborative Engagement Delivers Ecological Outcomes in the Lower Lakes and Coorong</p> <p>Collaborative efforts between a range of stakeholders, involving the use of key data and real time decision making, has led to the effective delivery and management of environmental water in 2017-18. This has resulted in the achievement of environmental outcomes particularly at the Lower Lakes, Coorong and Murray Mouth Icon Site, and has also contributed to South Australia meeting Basin Plan objectives and targets.</p> <p>In October 2017, at a joint meeting of the CLLMM Community Advisory Panel and LLCMM Scientific Advisory Group, information was provided by local fishermen that female black bream were ready to spawn. This species is considered commercially, recreationally and culturally important, with populations in the Coorong in severe decline since the Millennium Drought. The attendees at the meeting, which included representatives of the local community, traditional owners, scientists, river operators and the Commonwealth Environmental Water Holder, agreed that black bream were a high priority for environmental water management. Barrage operations that would create appropriate flow and salinity conditions to support black bream recruitment were determined, and crucially, the Commonwealth Environmental Water Holder (CEWH) agreed to provide environmental water for the event. Release of the water required careful management to achieve optimal salinity gradients that were conducive to achieving a successful breeding event.</p> <p>Subsequent monitoring undertaken by South Australian Research and Development Institute (SARDI) Aquatic Sciences has indicated that a successful black bream breeding event occurred as a result of the environmental water delivered and subsequent barrage operations in spring / summer 2017. The barrage operations and flow discharge created a sufficient salt wedge/halocline habitat that created nursery conditions suitable for spawned eggs, aiding larval development and ultimately successful recruitment. If suitable conditions had not been achieved, the event may not have been a success. A total of 102 juvenile black bream were detected in March to April 2018 at several sites in the Estuary and North Lagoon, the highest abundance caught since before the Millennium Drought.</p> <p>A managed drawdown of water levels in the Lower Lakes was also undertaken in autumn 2018 and was only made possible by the CEWH providing environmental water to maintain the Lower Lakes above critical water levels (i.e. not drop below 0.5m Australian Height Datum (AHD), while also</p>

Reporting Matter	Reporting Requirement (Supporting evidence to be provided by Basin States)	Response (response/milestone achievement/compliance status)
	<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).</p> <p>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>allowing continuous base flows out of the barrages to the Coorong. DEW officers worked with scientists and local landholders to ensure the community understood and supported the operation. The lower drawdown undertaken this year aimed to offset the loss of mudflat habitat experienced recently in the Coorong, by exposing larger areas of mudflats around the Lower Lakes and within wetlands along the River channel below Lock 1. It was expected that the exposed mudflats would provide food resources to foraging migratory waders before they fly back to the northern hemisphere. During the drawdown, bird watchers recorded thousands of migratory birds feeding in the mudflats and exposed shorelines, such as curlew sandpipers, stilts and the rare, vagrant white-rumped sandpiper. The lowering has also led to improvements in the health of fringing and aquatic vegetation of the Lakes and fringing wetlands.</p> <p>Ac) Case Study – Katarapko Floodplain Project</p> <p>The Katarapko Floodplain Project is part of the South Australian Riverland Floodplains Integrated Infrastructure Program (SARFIIP), which aims to improve the watering and management of some major River Murray floodplains in South Australia.</p> <p>SARFIIP and other projects in the Riverland have been driven by a partnership approach with project ideas guided by local knowledge and advice. The partnership between the DEW and the community-based Katfish Reach Steering Group informed the design and successful implementation of the Katfish Reach project and Katfish Reach Implementation Plan. This partnership and project success led to the design of SARFIIP, which expands initial community-identified solutions to increase environmental watering to an even greater area of the Katarapko region.</p> <p>Community and stakeholder engagement continues to be a crucial element of the Katarapko Floodplain project and SARFIIP. During 2017-18, a suite of community engagement activities, including workshops, public fairs and site tours, were undertaken to raise awareness of and seek community input on the environmental works at Katarapko. Local community groups, including the Katarapko Community Advisory Group and the First Peoples of the River Murray and Mallee region, help ensure that community interests and local knowledge are considered in managing the floodplain.</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>The long-term watering plan was completed for the South Australian River Murray water resource plan area by November 2015, consistent with the requirements of Chapter 8. It was endorsed by the then South Australian Minister for Water and the River Murray and is publicly available on the DEW website: http://www.environment.sa.gov.au/managing-natural-resources/river-murray/restoring-river-health/environmental-water/environmental-water-planning</p> <p>The long-term watering plan was completed for the Eastern Mount Lofty Ranges water resource plan area by July 2017, consistent with the requirements of Chapter 8. It is publicly available on the DEW website: http://www.environment.sa.gov.au/managing-natural-resources/river-murray/restoring-river-health/environmental-water/environmental-water-planning</p> <p>The long-term watering plan was completed for the SA Murray region water resource plan area by November 2017, consistent with the requirements of Chapter 8. It is publicly available on the DEW website: http://www.environment.sa.gov.au/managing-natural-resources/river-murray/restoring-river-health/environmental-water/environmental-water-planning</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>Annual watering priorities for each of the three South Australian Murray-Darling Basin water resource plan areas have been completed consistent with the requirements of Chapter 8 and were submitted to the MDBA by 31 May 2018. The priorities are publicly available on the DEW website. http://www.environment.sa.gov.au/managing-natural-resources/river-murray/restoring-river-health/environmental-water/environmental-water-planning</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>As part of the planning process the South Australian annual environmental watering priorities were provided to the relevant environmental water holders and water managers (i.e. Murray-Darling Basin Authority, Commonwealth Environmental Water Office and upstream states) and used to inform cooperative watering with upstream sites. DEW also provided feedback on the MDBA and CEWH annual priorities and water portfolio plans.</p> <p>The MDBA, through the Southern Connected Basin Environmental Watering Committee (SCBEWC), coordinated the use of The Living Murray/joint water portfolio and facilitated coordination of watering actions between all environmental water holders. Through this forum South Australia has highlighted opportunities for the effective use of environmental water to achieve benefits throughout the River Murray channel. The Commonwealth Environmental Water Office also developed a delivery options plan and watering schedule in collaboration with South Australia describing the preferred use of environmental water and supporting arrangements. South Australia also participated in cross-jurisdictional planning groups and advisory committees to help plan and deliver environmental water. In addition to formal meetings, there are routine and regular discussions between the jurisdictions about water planning and delivery.</p> <p>Coordination at the State and Basin level has allowed the outcomes of environmental watering to be maximised and continues to develop in terms of cooperation and sophistication. For example, new modelling tools are being developed to support decision making and more inclusive planning processes are leading to better coordination of watering actions.</p> <p>An example of a coordinated event is the Goulburn environmental water winter pulse that was timed to support outcomes in the Goulburn River but also to enable South Australia to take advantage of the water to encourage and facilitate lamprey movement through the barrages and move upstream. Similar cooperation has gone into the development of a River Murray channel watering proposal, describing environment requirements along the main stem of the Murray. This proposal will inform and support coordinated River Murray and tributary environmental water releases.</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>. 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>DAWR guidance - reporting under B4c) may include:</p> <ul style="list-style-type: none"> - 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>B4a) Environmental watering principles were embedded in the decision-making process.</p> <p>For example: Principle 7: Working effectively with local communities The South Australian Government undertook regular consultation with local communities on proposed environmental water planning and delivery through stakeholder groups with interests in environmental watering. Some examples of stakeholder groups the South Australian Government works with include:</p> <ul style="list-style-type: none"> • Ngarrindjeri Regional Authority, including the Mannum Aboriginal Community Association Incorporated • First Peoples of the River Murray and Mallee Region. • South Australian Murray-Darling Basin Natural Resources Management Board • River Murray Advisory Committee • Local Action Planning / Landcare groups • Community Advisory Panel and Scientific Advisory Group for the Coorong, Lower Lakes and Murray Mouth • Chowilla Icon Site Community Reference Committee • Nature Foundation SA • Renmark Irrigation Trust <p>A case study demonstrating this principle is described above in section A(b).</p> <p>B4b) Not applicable – environmental watering was in accordance with the Basin annual watering priorities.</p> <p>B4c) Management and delivery of planned and held environmental water was consistent with the Basin Plan, including the environmental watering plan's principles to be applied to environmental watering. Some examples are provided below.</p> <p>Principle 7: Working effectively with local communities, 8: Adaptive management and Principle 10: Other management and operational practices</p> <p>The South Australian Government, the CEWH, the Community Advisory Panel, the Scientific Advisory Group and other organisations worked together to adapt management to achieve outcomes for Black Bream in the Coorong, Lower Lakes and Murray Mouth. As described above in section Ab) local fishers in the Coorong observed that Black Bream were ready for spawning. This information was provided and discussed at a Coorong and Lower Lakes joint community and scientific advisory group meeting. Scientists, DEW water managers, the CEWH, SA Water and the MDBA worked together to achieve the precise flow and salinity conditions required to support Black Bream spawning and survival. This required delivery and release of water at specific barrages at a target rate for a target duration. It also required a significant water commitment from the CEWH to support immediate releases from the barrages and subsequent delivery to the Lakes to maintain the target minimum lake level. Several months after the event, Black Bream juveniles were captured in intervention monitoring undertaken at CLLMM by SARDI. It was concluded that the intervention had been successful.</p>
<p>B5 Characteristics of licenced entitlements held for environmental use</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>South Australia confirms that the characteristics of licensed entitlements held in South Australia for environmental use conform with existing agreements and have not been enhanced or diminished relative to like entitlements held for other purposes.</p>

<p><i>Applicable to NPA 8a</i></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>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. 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>B6a) Environmental water in-stream is protected from non-environmental uses through provisions in the South Australian River Murray water allocation plan that prevent the use of any additional flow above Entitlement Flow for consumptive purposes.</p> <p>The Eastern Mount Lofty Ranges (EMLR) Long-Term Watering Plan is based on the EMLR water allocation plan that contains measures to protect water in-stream - i.e. by maintaining base flow and enabling low-flow bypasses on dams.</p> <p>B6b) South Australia does not 'shepherd' water but there are provisions in the South Australian River Murray water allocation plan that prevent the use of any flow above Entitlement Flow or any South Australian held environmental entitlements for consumptive purposes. This protects return flows from environmental watering actions that occur upstream and within the state. For example, if environmental water is provided for filling behind the Chowilla Regulator when it is in operation and/or during weir pool raising, the return flow can then be used to achieve benefits along the River Murray Channel and at the CLLMM when it is released. It should also be noted that water cannot be re-regulated in South Australia.</p> <p>South Australia has prepared a policy and procedure for the management of return flow within South Australia consistent with the requirement of the South Australian Prerequisite Policy Measures Implementation Plan.</p> <p>B6c) Environmental flows are protected from consumptive use in South Australia by the water allocation plans. Water allocation plans also protect return flow from environmental watering actions for re-use downstream.</p> <p>South Australia is undertaking the actions described in the State Prerequisite Policy Measures Implementation Plan including;</p> <ul style="list-style-type: none"> development of a River Murray Operations Manual and a Policy and Procedures Handbook for environmental water management; drafting the South Australian River Murray Water Resource Plan with an initial draft submitted to the MDBA; further development of the Source model for South Australian conditions; and development of a Return flow policy and procedure.

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</p>	<p>The South Australian River Murray Annual Operating Plan and the Annual Environmental Watering Plan guide transparent and coordinated River Murray operational decisions in South Australia. The plans document the objectives and outcomes sought under a range of climate and inflow scenarios, describes how the desired outcomes are proposed to be delivered and identifies how the River Murray in South Australia may be routinely operated under a number of potential water availability scenarios.</p> <p>River Murray operations outside those defined in the South Australian River Murray Annual Operating Plan and the Annual Environmental Watering Plan are managed through River Murray Action Request Forms. River Murray Action Request Forms require the proponent to identify the potential impacts of flow management decisions as they relate to water quality for actions that arise throughout the year.</p> <p>In 2017-18 flow management and environmental watering decisions were made on a daily basis by the Department for Environment and Water River Murray Operations Group consistent with the objectives of the South Australian River Murray Annual Operating Plan and the Annual Environmental Watering Plan. Twenty River Murray Action Requests relating to flow management and wetland management were received for consideration and assessed for impacts on River Murray water quality.</p> <p>Decisions were made using a range of hydrological data, modelling and other water quality information gathered regularly. Decisions to use</p>

	difference to these water quality issues, and any learnings to inform continuous improvement.	environmental water were dependent on the real-time river conditions at the time, the likely risks and available contingency measures. During watering events, specific monitoring of water quality occurred in real-time at the major wetland sites with smaller sites monitored through the in-stream monitoring network.
C2 Apply salinity targets in the Murray– Darling Basin Agreement for salinity planning and management. <i>Applicable to Schedule 12, Matter 14 and BPIA 23.1</i>	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). Please indicate how this is done. 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.	South Australia will address this reporting requirement through the provision of Basin Salinity Management 2030 reporting under Schedule B of the Murray-Darling Basin Agreement.
C3 Determine whether the trigger is reached. <i>Applicable to Schedule 12, Matter 13 and BPIA 26.1</i>	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. Please indicate if a trigger was reached and if so, what action was taken.	No triggers were reached in water year 2017-18.

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.		
D1 Compliance with the Basin Plan water trading rules <i>Applicable to Schedule 12, Matter 16, Indicator 16.1 and BPIA 29.1-31.1</i>	D1 Provide website links to the publication of information regarding an Approval Authority's interest in a trade (s12.38 (2)). Provide documentation to support compliance with s12.37 (notice of disclosure) Describe how you have notified affected parties with the decision to restrict a trade and reasons for the restriction consistent with 12.39. How has your State undertaken best endeavours to ensure water announcements have been made generally available? Provide documentation that supports a compliance with s12.50 (water announcements to be made generally available).	South Australia is compliant with the requirements of sections 12.37, 12.38, 12.39 and 12.50. s 12.37 and 12.38 Notice and disclosure of an interest in a trade Delegates of the Minister for Environment and Water as Approval Authority provide a declaration to the parties to a trade if the Minister has an interest in a trade. The Minister for Environment and Water engages in trade primarily for the purpose of managing environmental assets including the Living Murray Icon sites. To support market integrity and confidence and ensure compliance with s 12.49 to 12.52 of the water trading rules, DEW has separate administrative and decision-making functions for trade approval and trading. These arrangements are supported by a Policy and Procedure for Managing Sensitive Water Market information and trading. Trade by the Minister for Environment and Water is publicly disclosed on Water Connect: https://www.waterconnect.sa.gov.au/Systems/WTR/Pages/Default.aspx s 12.39 Notice of reasons for restricting trade DEW gives notice to each party involved in a trade when it decides to restrict the trade of a water access right. The notice of disclosure to each party includes detail on the decision to restrict the trade and the reasons for the decisions. Notice is provided as soon as practicable but, in any case, within 30 days after the decision. The reasons for refusing a trade comply with both the Basin Plan water trading rules and state the relevant provision of a water allocation plan (if relevant) or reasons, such as inter-valley trade limits being reached, an invalid application form being lodged or insufficient water available on a holder's account. s 12.50 Water Announcements to be made generally available DEW made a number of water announcements during 2017-18 which were all made generally available. All announcements are: <ul style="list-style-type: none"> released as a Media Release to radio, print, electronic and social media; uploaded on the Department for Environment and Water website: www.environment.sa.gov.au; and reported in the weekly "River Murray Flow Report" and monthly "Water Resources Update" which is emailed to approximately 1000 recipients. The 2018-19 water allocation announcement was also published in the South Australian Government Gazette on 28 June 2018 (page 2606): http://governmentgazette.sa.gov.au/sites/default/files/public/documents/gazette/2018/June/2018_044.pdf Copies of announcements can be found on the Department for Environment and Water website: https://www.environment.sa.gov.au/topics/river-murray/water-allocation-and-carryover/water-allocations-and-announcements
D2 Trade processing times	D2a) Report on interstate and intrastate trade processing times (as per the COAG service and reporting standards for trade processing times).	D2a) South Australia is compliant with the Council of Australian Governments (COAG) service and reporting standards for trade processing times. Trading information for the South Australian River Murray is updated on or before the 7th day of every month and published on Water Connect https://www.waterconnect.sa.gov.au/Systems/WTR/Pages/Default.aspx

Applicable to Schedule 12, Matter 16, Indicator 16.2; NPA 6d and BPIA 29.1-31.1	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.	In 2017-18 100 percent of interstate allocation trade, 98.12 percent of intrastate allocation trade and 98.36 percent of entitlement trade applications were processed within the agreed trade service standard times. D2b) South Australia can confirm that applications for entitlement and allocation trades to which the Commonwealth was a party were also processed consistent with the agreed service standards.
Restrictions on trade and their application (Refers compliance status with sections s12.02-12.27 of the Basin Plan).		
D3 Ensure trades are consistent with the Basin Plan water trading rules Applicable to Schedule 12, Matter 16; NPA 6a, and 6b and BPIA 29.1	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. 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. DAWR guidance - reporting may include: – 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.	D3a) The status has not changed since 2016-17 and South Australia's water trading activity is consistent with the Basin Plan water trading rules. D3b) South Australia has not implemented any new restrictions on trade.
D4 NWI-consistent surface water entitlements Applicable to NPA 6e	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.	Surface water entitlements in South Australia are consistent with clauses 28 to 32 of the NWI.
Information and reporting requirements		
D5 Provide information on water access rights and water trade rules. Applicable to Schedule 12, Matter 16 and BPIA 31.1	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? 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?	D5a) South Australia has made some changes to South Australian River Murray water access rights displayed on the MDBA's Water Market products page in connection with amendments to the River Murray Water Allocation Plan. South Australia is in the process of supplying updates to the MDBA. D5b) South Australia has not implemented any new trade rules that regulate the trade of tradable water access rights.
D6 Report trade prices Applicable to Schedule 12, Matter 16 and BPIA 31.2	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?	The Minister for Environment and Water has traded water allocations and entitlements during 2017-18 and reports the price (including \$0) in connection with relevant trade applications submitted to the approval or registration authority. Trade by the Minister for Environment and Water is publicly disclosed on Water Connect including information relating to the agreed price of trade: https://www.waterconnect.sa.gov.au/Systems/WTR/Pages/Default.aspx

E. Sustainable diversion limits

Reporting Matter	Reporting Requirement (Supporting evidence to be provided by Basin States)	Response (response/milestone achievement/compliance status)
E1 Provide advice of actions undertaken to support Commonwealth measures to acquire water for environmental purposes. Applicable to NPA 6c	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. DAWR guidance - reporting may include: – 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	South Australia can confirm that it has not impeded Commonwealth measures to acquire water for environmental purposes. As a result of the 605 gigalitres Sustainable Diversion Limit adjustment decision, South Australia is not required to recover any more water to 'bridge the gap'. South Australia has actively and cooperatively participated in environmental water recovery efforts, as well as measures to recover environmental water through efficiency measures (e.g. Commonwealth On-farm Further Irrigation Efficiency program) and water recovery programs (e.g. South Australian River Murray Sustainability program).

	<p>purchases.</p> <ul style="list-style-type: none"> – 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. 	
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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>South Australia progressed the Ministerial Council agreed package of constraints proposals as a member of the Constraints Measures Working Group with representatives from the Victorian, New South Wales and Commonwealth governments as well as the Murray-Darling Basin Authority. The Working Group was reconvened by the Basin Officials Committee in November 2017 to prepare an integrated constraints work plan to provide a coordinated, cross-jurisdictional approach for addressing constraints that enables strong community involvement and a staged implementation approach. The Working Group prepared overarching constraints principles to guide the states' implementation of constraints measures and commenced development of the integrated constraints work plan for Basin Officials Committee and Ministerial Council approval.</p> <p>South Australia worked with other jurisdictions to assess and confirm constraints measures business cases across the Basin, which included agreement to treatments to resolve issues and risks identified in the phased assessment process.</p> <p>South Australia has commenced preparation, planning and early negotiations with the Commonwealth Government on a new project agreement for the River Murray in South Australia constraints measure consistent with the initial funding guidelines for supply measure capital works. South Australia is seeking Commonwealth funding over two years to undertake the next phase of planning, design and engagement to refine constraints mitigation scope and costs in accordance with the long term implementation plan to 2024. This work will be undertaken in close collaboration with local communities and consistent with the integrated constraints work plan to enable the environmental benefits and manage the potential risks of flows up to 80,000 megalitres per day at the South Australian border.</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>The MDBA provided regular water resource assessments to enable South Australia to make decisions on critical human water needs and allocation decisions.</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>No periods of Tier 2 or 3 water sharing arrangements occurred in 2017-18.</p> <p>South Australia had regard to advice provided by the MDBA in its water availability assessments when making water allocation decisions.</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</p>	<p>No triggers were reached in the water year 2017-18.</p>

	<p>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>	
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H. Water Resource Plans

Reporting Matter	Reporting Requirement (Supporting evidence to be provided by Basin States)	Response (response/milestone achievement/compliance status)
<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>South Australia submitted its first Water Resource Plan, for the SA Murray Region, to the MDBA in January 2018 and is now working to address comments made by the MDBA and finalise the Plan.</p> <p>South Australia remains on track to submit its other Water Resource Plans within the required timeframes.</p>

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 understory 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