NSW 2015–16 annual reporting requirements under Basin Plan Schedule 12, BPIA and NPA

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The NSW 2015–16 annual report to satisfy reporting obligations for:

- Basin Plan Schedule 12 responses
- National Partnerships Agreement assurance of milestone achievement
- Basin Plan Implementation Agreement self-assessment of compliance with implementation tasks

Reporting context

This template provides for one Commonwealth information collection point, which can be used multiple times to meet Basin State reporting obligations in relation to the Murray-Darling Basin Plan.

Our aim is to reduce duplication, improve transparency and increase efficiency of reporting. The template has been tailored to address information requirements for the 2015-16 reporting year and will be updated for each subsequent reporting period.

At this point in time, the information collection template is designed to satisfy reporting obligations for Basin Plan Schedule 12, Basin Plan Implementation Agreement (BPIA) compliance requirements and the milestone assessments of the National Partnership Agreement (NPA) on Implementing Water Reform in the Murray-Darling Basin. Reporting for Schedule 12 Matter 9 (the identification and use of

environmental water) is reported elsewhere. Matter 9, 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*.

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. For example, reporting against NPA milestones 6c and 8a is not specifically required as information will be gathered from within the Department, the MDBA and the Commonwealth Environmental Water Office.

A. Local Knowledge and Stakeholder Engagement

Reporting Matter	Supporting evidence to be provided by Basin States	Response (response/milestone achievement/compliance status)
The extent to which local knowledge and solutions inform the implementation of the Basin Plan		
A1 The outcome of engagement on the implementation of the Basin Plan *Applicable to Schedule 12, Matter 6, Indicator 6.1 and NPA 8e*	Descriptive statement. Where possible include: • How local knowledge and solutions were used by the reporter • How involving communities made a difference to Basin Plan implementation • How decisions changed as a result of community involvement • How environmental watering in regulated catchments has occurred having regard to the views of local communities and persons materially affected by the management of environmental water • Local knowledge might include knowledge drawn from Traditional Owners and other Aboriginal people and groups • When reporting on Aboriginal participation and influence, processes of involvement may be as important as outcomes. In 2015/16 reporting, we would expect use of local knowledge to feature in development of Water Resource Plans and the management of environmental water. 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.	In 2015-16 NSW continued engagement for the Macquarie, Gwydir and Lachlan surface water Water Resource Plans (WRP). This has included establishment of Stakeholder Advisory Panels as a forum to discuss management options. These panels include representatives from water users and environmental interests. Panel members have provided advice on their objectives and suggested options to be explored including modelling scenarios. The local knowledge is being used to develop options. Decisions have not yet been made. In the alluvial groundwater WRP areas, initial meetings have been held with targeted stakeholder groups to inform them on state plan review processes and commence engagement on WRP development. NSW is reviewing the approach to WRPs following feedback from NSW Irrigators Council. NSW has commenced Aboriginal engagement via established protocols with NBAN and MLDRIN, as well as Local Aboriginal Land Councils and other interested Aboriginal parties. Information from engagement is used to inform matters such as Objectives and Outcomes, and Values and Uses, including identification of the water dependence of these values Environmental Watering Advisory Groups (EWAGs) are composed of community and agency representatives, with the primary aim of guiding the use of environmental water in NSW. Each EWAG uses local knowledge and expert advice to ensure environmental water is managed effectively and efficiently in their catchment. This knowledge and advice is then incorporated by NSW into an annual watering plan, which describe watering assets and targets (annual watering priorities), the recent history of natural and environmental water flows, preceding conditions and a forecast of available water. Annual watering plans are developed in collaboration with CEWO and in alignment with the Basin Plan. Longer-term water planning objectives and the Basin Watering Priorities are a key focus of these annual plans. The role, performance and achievements of EWAGs in regards to Basin Plan implementation are further discussed below in section 6.2 and 6.3. An independent review of EWAGs provided objective information on their performance, particularly from a diverse stakeholder perspective. While the review found that EWAGs are a successful mechanism for public participation in environmental water management and reflect an effective localism approach, a number of improvements to the structure and governance of these groups was needed. The implementation of these recommendations is now underway and will continue to be implemented over the 2016/2017 water year. As NSW proceeds with the development of long-term water plans, EWAGs and other important stakeholders, are being engaged to identify assets, risks and long-term water objectives. Long-term watering plans are currently being developed for the Gwydir and Macquarie-Castlereagh in consultation with community members and other agencies. Preliminary meetings have been completed for the Murray-Lower Darling and the Lachlan with the aim of informing stakeholders of the proposed approach to developing watering objectives, identification of important assets and obtaining feedback. See section B1 for further information on long-term water plans.

Reporting Matter	Supporting evidence to be provided by Basin States	Response (response/milestone achievement/compliance status)
A2 Processes used to identify stakeholders and other relevant groups and individuals from local communities and peak bodies *Applicable to Schedule 12, Matter 6, Indicator 6.2 and NPA 8e*	Descriptive statement. Where possible include: • Process used to identify stakeholders and other relevant groups and individuals	In regard to Stakeholder Advisory Panels, the Customer Service Committees (Consisting of Peak Water User representatives advising Water NSW on operational issues) and Environmental Water Advisory Groups (EWAGs) were asked to identify representatives from within their groups to represent key stakeholder interests in surface water discussions. NSW has knowledge of key stakeholder groups from previous planning activities and will draw on this knowledge to identify groups for targeted consultation and mail-outs. In regard to Aboriginal consultation, NSW has a dedicated Aboriginal Water Initiative teamwho draw on their own and community knowledge to build up a list of relevant contacts within each plan area and feed this information into the relevant SAP.. MDBA has provided a map of Traditional Owner groups as a guide in engagement activities and input from NBAN/MLDRIN is also sought. As part of NSW independent review of EWAGs, a requirement for an improved process to identify appropriate members was recommended. In response NSW has developed a framework which facilitates a more transparent and flexible approach to identifying potential EWAG members and ensuring NSW Government committee appointment standards are met. The membership framework also includes position descriptions to ensure that the appointment of members is merit-based and new appointees will be able to contribute effectively to the aims of the group. The correct membership on EWAGs is important in the successful management of environmental water. EWAGs are not only crucial in the development of annual watering priorities across the five priority valleys areas (Murrumbidgee, Macquarie, Lachlan, Gwydir and the Murray-Lower Darling) where they have been established, they are also playing a pivotal role in providing advice on the development of long-term water plans. NSW is also seeking input from other industry and community groups to ensure stakeholders have early and ongoing input into long-term water planning.
A3 How stakeholders and other relevant groups and individuals were engaged The outcome of engagement on the implementation of the Basin Plan *Applicable to Schedule 12, Matter 6, Indicator 6.3 and NPA 8e*	Descriptive statement. Where possible include: • Range of audiences engaged • Range of opportunities (types of engagement) Relate these to the Basin Plan obligations to have regard to local views (Chapter 8 and 10)	For surface water WRPs engagement to date has been through the establishment of Stakeholder Advisory Panels. The Stakeholder Advisory Panels have met in 2015-16 in the Macquarie, Gwydir, and Lachlan valleys to provide feedback on water sharing issues and management options. Information on the water resource planning requirements have also been shared through this process. For groundwater water WRPs the engagement to date has included: • meetings with targeted stakeholders to inform them of the planning process and opportunities for input in the future • public submissions on six groundwater water sharing plans • meetings with groundwater users in the Lachlan alluvium to discuss water sharing concerns • meeting with Gwydir water user representatives to explain the groundwater model Aboriginal engagement has included discussion with peak groups as well as individuals in community. This has been via presentations, one on one conversations, as well as workshops. In addition NSW has engaged with NSW Irrigators Council and members to review its approach to WRPs and engagement opportunities. EWAG members and other identified stakeholders are provided opportunities to contribute to the decision-making process through a variety of methods, including regular meetings, teleconferences, various websites and other forms of communication when necessary. Broader communication is via

Reporting Matter	Supporting evidence to be provided by Basin States	Response (response/milestone achievement/compliance status)
		records of meetings, bi-annual newsletters of e-water management and annual outcome reports. Environmental water managers and EWAGs have identified communications and engagement as a priority for action. NSW has developed an environmental water communications and engagement strategy to meet the increased community requests for more information about environmental water and its management. Successful communication and engagement can also be expected to result in more understanding and ownership of environmental water management within the community. The approach to meeting these objectives include: • Adopting different communication media and being more responsive for notification of events. • Upgrading the OEH web site to be more user friendly for the full range of audiences. • To broaden community engagement to the "community of interest" within each catchment. • To partner with other government agencies in engagement and communications to delivery whole of government communication and engagement. • Implementing more catchment based multi-media communication products suitable for landholders. • Working more closely with EWAGs on communications and engagement. An annual workshop was held by NSWin May 2016 to review watering actions, to discuss any arising issues from environmental water activities and to identify where improvements are desirable.

B. Environmental Watering

Reporting Matter	Supporting evidence to be provided by Basin States	Response (milestone achievement/compliance status)
The implementation of the environmental management framework (Part 4 of Chapter 8)		
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. *Applicable to Schedule 12, Matter 10, Indicator 10.1; NPA 8f and BPIA 18.1*	Each Basin State will prepare long-term watering plans aligning with the Plan's surface water resource plan areas. The level of detail in a long-term watering plan will vary according to local conditions, levels of development and regulation, the influence on other water resources, and statutory and other arrangements prevailing in the surface water resource plan area. A long-term watering plan may provide that an existing or other specified instrument or text comprises or is part of a Basin State's plan. The plans will be developed by dates agreed between the MDBA and each Basin State. The MDBA and each Basin State will separately agree on what further material would be required for each of the State's long-term watering plans. As part of this, the MDBA	As a component of the Basin Plan, NSW has been developing long-term watering plans. These plans will guide the longer term management of environmental water within Water Resource Plan areas to achieve catchment and Basin-wide environmental outcomes. Each long term watering plan will identify important assets and ecosystem functions, set environmental objectives and targets and recognise long-term risks and management strategies. The development of long-term watering plans is well progressed. To date, draft plans are nearing completion for the Gwydir and Macquarie-Castlereagh. These draft plans will be available for preliminary NSW agency feedback by August and September 2016 respectively. The plan development has commenced in the Murray-Lower Darling, commencing with a scoping workshop with agency partners. NSW Agency workshops are also scheduled over the next few months for the Intersecting Streams, Barwon Darling, Border Rivers and Lachlan catchments. Long term watering plan schedules match those for Water Resource Plans to ensure consistency between the two plans.

	and each Basin State will also agree on the standards required for this material.	
B2 Annual priorities were prepared, with the required content, published, reviewed and updated as obligated under Part 4 of Chapter 8, Divisions 4 *Applicable to Schedule 12, Matter 10, Indicator 10.1; NPA 8c and BPIA 19.1*	The level of detail for annual environmental watering priorities will vary according to local conditions, levels of development and regulation, influence on other water resources and statutory and other arrangements in the water resource plan area. The principle of fit for purpose management will inform the development and assessment of annual environmental watering priorities by Basin States and the MDBA respectively. Basin States will submit their annual environmental watering priorities (AEWP) or other relevant instrument as agreed with the MDBA, for the purposes of identifying the Basin annual environmental watering priorities for the water resource plan areas.	NSW has identified the annual environmental watering priorities (AEWP) for surface water in each Water Resource Plan area for 2016/2017, having had regard to the Basin Plan Part 4 of Chapter 8, Division 4 and the principles in Part 6 of Chapter 8. These priority statements were provided to the MDBA in a timely fashion and identified how environmental water may be used in the coming year, depending on ecological and climatic factors, including antecedent conditions, and water availability. These priorities were provided to the MDBA in May 2016 and can be found on the NSW Office of Environment and Heritage (OEH) website at: http://www.environment.nsw.gov.au/topics/water/water-for-the-environment
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) *Applicable to Schedule 12, Matter 10, Indicator 10.2; NPA 8c, 8d and 8f and BPIA 20.1*	a. Describe how coordination, consultation and cooperation occurred including with other governments in preparing watering strategies, plans and priorities, as obligated in Part 4 of Chapter 8, as well as the matters to which regard must be had b. Describe how coordination, consultation and cooperation made a difference	Developing the AEWPs in accordance to Chapter 8, Part 4 of the Basin Plan required a coordinated and consultative approach with NSW government agencies and respective EWAGs. This approach ensures that stakeholder's concerns are addressed and priorities are developed in a cooperative fashion. It also promotes the efficient use of environmental water for more effective outcomes. Cooperative management of all held and planned water is therefore a key element of the prioritisation and planning. In Regard to 8d of the NPA Water management of the Namoi is governed by the Water Sharing Plan, which commenced in 2004 to protect environmental values, and supply water to towns, riparian landholders, irrigation and other industry for the benefit of rural communities in the system. As part of the WSP commenced in 2004, supplementary access to unregulated natural flows in the catchment was set at an environment to user share ratio of 90:10 between July and October, and 50:50 for the remainder of the year. It should be noted that supplementary access arrangements in all other valleys which allow supplementary access have a 50:50 share In 2014, the Peak Irrigation Body in the Namoi, on behalf of water users,raised concerns that the basis for introducing the 90:10 rule in the Namoi was not based on sound science, and was causing unreasonable economic hardship. , As a result, an amendment was proposed to change this rule to a 50:50 share for the entire year . The rule change will be trialled, monitored and evaluated over the next four years leading up to the development of the Namoi Water Resource Plan by 2019. An interagency steering committee has been established to oversee the implementation of the trial, and to ensure the quality of the science being undertaken to assess the trial,The committee includes Namoi Water, DPI Water, DPI Fisheries, the Office of Environment and Heritageand the Commonwealth Environmental Water Holder..,The Murray-Darling Basin Authority declined an offer to participate, but receive copies of minutes and papers.. NSW have developed a science program which will investigate whether the proposed rule change in the supplementary access rule from 90:10 to 50:50 between July and October is likely to have affect

		the native fish community and aquatic food resources in the Namoi. The project will focus on: • Fish spawning and recruitment • Fish condition • Fish community structure and composition • Fish movement • Dissolved Organic Carbon and nutrient concentrations and loads • Algae and bacterial production and communities • Secondary production (such as zooplankton) It should be noted that: • The WSP continues to ensure that the SDL is adhered to. As a result, it is NSW view that the volumes of Planned Environmental Water are not impacted, although the timing of delivery will alter • Should the science show that this rule change reduces environmental outcomes the rules will be amended in 2019, based on scientific evidence.
B4 How Environmental watering principles were applied consistent with Chapter 8, Part 4, Division 6. *Applicable to Schedule 12, Matter 10, Indicator 10.3; NPA 8b and 8d and BPIA 20.2*	a. Provide at least one case study that demonstrates how environmental watering principles were applied and identify the relevant principles. b. Provide reasons for any environmental watering that was not in accordance with annual watering priorities (please provide answer in the *statement of reasons* table at bottom of this document). c. Where feasible and agreed by the relevant basin state, confirmation that measures have been implemented to facilitate the use of environmental water through water shepherding and return flow provisions.	a. <u>Case Study</u> In line with Basin annual environmental watering priorities (Principle 1), following consultation with other agencies, the EWAG and landholders (Principles 2 and 7), NSW delivered 12,500ML of environmental water to the Great Cumbung Swamp in the lower Lachlan to promote connectivity, fish breeding opportunities and waterbird habitat. The delivery of NSW environmental water in November 2015 contributed to improved outcomes for native fish in the mid to lower Lachlan River by creating a series of pulses in the river designed to provide breeding opportunities for medium to large bodied native fish. A number of native fish species use significant changes in water height and flow velocity as cues for movement and spawning. While this flow aimed to support a range of native fish species, the target species were Golden perch (*Macquaria ambigua*) and Silver perch (*Bidyanus bidyanus*). The event was designed to provide target flow levels in the reach from Brewster Weir to Hillston Weir which is a known fish biodiversity hotspot. These target levels, delivered from a combination of off-river storages and Wyangala Dam, supported native fish movement and spawning for the length of the Lachlan River from Wyangala Dam down to the Great Cumbung Swamp. Monitoring indicated that while non-flow dependent native fish species spawned over the period of the flow there was no evidence of Golden perch or Silver perch spawning. Below Brewster Weir, the environmental flow passed through 650 km of Lachlan River channel, supporting fringing riparian vegetation. The end of system flow generated by this event also replenished the Great Cumbung Swamp, increasing inundation extent to approximately 9,000ha, supporting common reed beds (*Phragmites australis)*, river red gum (*Eucalyptus camaldulensis*) woodlands and areas of open water.

		Another response to this inundation, was the gathering of thousands of waterbirds in the Swamp, with at least 14 varieties of waterbird feeding and breeding since water arrived, including straw-necked ibis (*Threskiornis spinicollis*), yellow-billed spoonbills (*Platalea flavipes*), cormorants and stilts (Principle 3). The environmental flow was delivered within the event design parameters, requiring significantly less volume of water than had been committed for the flow. This successful watering event was the result of the exceptional level of cooperation and collaboration between river operators, water managers and the monitoring teams. A cross-agency Technical Advisory Group was formed to optimise the design, delivery and monitoring opportunities of the flow. The group also identified possible risks and responses to those risks as part of event planning (Principles 4 and 6). To assess the outcomes of the flow and possible improvements in how the flow could be better managed to promote perch breeding, Long-term Intervention Monitoring (LTIM) was undertaken at sites along the Lachlan River below Brewster prior to the flow. LTIM project undertook stream metabolism monitoring at sites matched to riverine fish sampling sites, with continuous monitoring of dissolved oxygen and temperature, and also sampling of nutrients and water quality attributes. Enhanced fish monitoring program was undertaken to overlap with the flow, with fortnightly sampling of larval fish at three sites on the lower Lachlan River (Principle 8). b. <u>Environmental watering that was not in accordance with annual watering priorities</u> While all NSW managed watering events broadly met the annual watering priorities, the mid-Murrumbidgee piggy-back flow was unable to be delivered due to community concerns. A partial solution was found through the delivery to a number of mid-Murrumbidgee wetlands using existing infrastructure. (See Table below for further explanation). It should also be noted that, while environmental water was delivered to maintain the condition and range of Moria grass in Barmah–Millewa Forest, only limited success was achieved as flows in the Murray River below Yarrawonga were extremely low and made it difficult to achieve the desired inundation extent. c. <u>Measures implemented to facilitate the use of environmental water</u> NSW has prepared a response to the PPM workstream and this will be provided to MDBA shortly.

C. Water Quality and Salinity Management

Reporting Matter	Supporting evidence to be provided by Basin States	Response (milestone achievement/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.		
C1 Regard had to the targets in s9.14 when managing water flows *Applicable to Schedule 12, Matter 14, Indicator 14.1 and BPIA 21.1*	Summary of how the Authority and Basin States 'had regard' to water quality targets when managing water flows. Statement that procedures and tools were in place, and how these were used in the reporting year. Reporters to provide a case study where possible.	New South Wales is in the process of developing their Water Quality Management Plans that will demonstrate detailed procedures and tools required for having regard for the targets in s9.14 when managing water flows. Current procedures and tools to enable meeting water quality targets for dissolved oxygen, recreational water quality and salinity are; s9.14 a) to maintain dissolved oxygen at a target value of at least 50% saturation - New South Wales operates a network of dissolved oxygen early warning sensors in the Murray and Riverina regions. Information from these sensors is disseminated weekly during high risk times and management options discussed by multi-agency river operation groups when a warning for a potential low dissolved oxygen or blackwater event is triggered. s9.14 b) the targets for recreational water quality in s9.18 - Managing the risk of algal blooms in New South Wales fresh waters includes a multi-agency co-ordinated algal monitoring program, management of blooms and the release of public notifications. Algal warning levels are for recreational water use as set out in the Australian Guidelines for Managing Risks in Recreational Water. s9.14 c) the levels of salinity at the reporting sites set out in the following table should not exceed the values set out in the table, 95% of the time. - New South Wales continuously monitors river salinity at a number of key locations within the Murray-Darling Basin. - Modelling tools support salinity management by enabling assessment of salinity regimes under a 'stationary' water management regime, enabling different management options to be explored and evaluated, or to allow the extrapolation of salinity into the future or into geographic areas where there is little data available. - New South Wales adheres to its obligations under the Basin Salinity Management Strategy by remaining a positive balance on the salinity registers, and to maintain the Basin salinity targets in the Murray–Darling Basin Agreement for salinity planning and management. - The Murray-Darling Basin Authority, Basin Officials Committee and Basin States undertake long-term salinity planning and management functions in accordance with the targets in Appendix 1 of Schedule B, including the Basin Salinity Management Strategy Operational Protocols. New South Wales undertakes routine state-wide river water quality monitoring at key locations across all catchments of the New South Wales Murray-Darling Basin; this includes the capture and characterisation of rivers and streams in terms of long-term physical and chemical features. **Case Study** In unregulated systems water extraction can lead to an increase in the frequency and duration of very low and cease to flow conditions in stream. These reductions have multiple effects on water quality;

		• Significant decreases and increases in dissolved oxygen are associated with continued water extraction at low flows and oxygen is at its lowest when flows cease. • The maximum temperature and the daily temperature range both increase as flows cease. These changes are exacerbated by the highest extraction often occurring during the hottest weather. • Both salinity and toxicants are often highest when flows cease and evaporation concentrates salts and chemicals within pools. Cumulatively these changes have significant negative effects on riverine animals, plants and ecosystem function. Low flow cease-to-pump rules are present in many systems (eg. Lower Horton River, Gwydir unregulated system, has a 4 ML/day cease to pump rule) and are a useful tool for avoiding the worst water quality degradation that may occur when streams cease to flow. Low flow cease-to-pump rules also play an important role in making it more possible for animals to move up and down a river and seek a range of different habitats to live. Other important ecosystem functions such as nutrient and carbon cycling also benefit from these rules. Cease-to-pump rules also help protect water users from the risks of high salinity, particularly in areas where saline groundwater discharges into rivers during dry weather periods. An M&E program is currently being developed to provide an evidence base to assess the adequacy of low flow and visible flow protection rules.
C2 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 21.1*	Summary of how the Authority, CEWH and the Basin States 'had regard' when making decisions about the use of environmental water. Statement that procedures and tools were in place, and how these were used in the reporting year. Reporters to provide a case study where possible.	NSW environmental water events seek to maximise environmental outcomes whilst having regard to the Basin Plan's water quality and salinity targets. All approvals for environmental water releases need to demonstrate adequate risk identification and mitigation, and have regard to the targets in s9.14, as prescribed in any request to deliver environmental water). All requests for environmental water releases are required to demonstrate adequate risk identification and mitigation prior to approval. Watering events also need to have regard to the targets in s9.14 and reflected in requests to deliver environmental water. Where possible, modelling/decision support tools are used to assess potential water quality impacts of proposed water actions (e.g. bank erosion, blackwater, acid sulphate soils, salinity, dissolved oxygen and temperature). Additionally, risk mitigation strategies identify potential water quality impacts and salinity issues that may occur during the delivery of environmental water, and responses to these potential risks. These may include cessation of water delivery, changes to the timing, duration or inundation extent of the environmental water delivery, or use of dilution flows. Risk assessments, monitoring, and mitigation actions were undertaken for all NSW environmental water events in 2015/2016. Prior to the release of environmental flows, relevant infrastructure managers were consulted, and throughout the course of watering events, regular phone calls, email updates, and site inspections with stakeholders and landholders were carried out to keep them informed and mitigate any concerns. In the event of any changes in water quality, there was appropriate communication with scientists, government, and the community in order to implement appropriate mitigation strategies. Climatic changes were also monitored and watering adjusted accordingly in order to minimise impacts of flood water. All 2015/2016 environmental watering events in NSW were completed with the approval and support of the community, landholders, stakeholders and relevant government departments, and with positive environmental outcomes.

		Case Study: NSW managed a series of 'return flows' from the North Redbank wetlands system in the Lowbidgee to the Murrumbidgee River channel. This water action was undertaken by NSW on behalf of the Commonwealth Environmental Water Holder. The return flows were considered a priority as they have become less common with the increased demand for water in the Murrumbidgee. Return flows are an important component of floodplain connectivity, transferring nutrients, zooplankton, fish larvae and invertebrates from the floodplain to the river. Water quality and biological monitoring was funded by the Commonwealth Environmental Water Office and undertaken by Charles Sturt University, with assistance from environmental water managers. To avoid any adverse impacts on the river, wetland water is assessed prior to and during release, and modelling is undertaken to identify release volumes. By monitoring planned flows, water managers can learn more about the role they play in the health of the river for all water users and reduce risks associated with the delivery. By understanding the benefits of return flows, water managers can target specific objectives with the timing and duration of future environmental watering events. Findings to date indicate that the levels of aquatic micro-invertebrates in the wetlands can be up to 10 times higher than the river. This makes the transfer of water important for feeding young native fish and for generally increasing productivity within the river channel.
Application of salinity targets for the purposes of long-term salinity planning and management (Refers compliance status with section s9.19 of the Basin Plan).		
C3 Apply salinity targets in the Murray–Darling Basin Agreement for salinity planning and management. *Applicable to Schedule 12, Matter 14 and BPIA 23.1*	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).	The Basin Salinity Management 2030 Strategy was approved last year, and NSW is now operating under this strategy. NSW's role in delivering this is through the Advisory Panel, which oversees the maintenance of the Salinity Registers and the operation of the salinity interception schemes. NSW has prepared a schedule of planned reviews of NSW entries on the salinity registers, and is in the process of updating the salt load models and analysing salinity data as a preparatory stage for preparing salinity management plans under the Basin Plan.
Water quality and salinity trigger points		
C4 Determine whether the trigger is reached. *Applicable to BPIA 26.1*	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.	NSW is not aware of any triggers being breached that would result in a need for emergency response during the year. There was a potentially toxic bloom of *Chrysosporum ovalisporum* in the Murray River between February and June 2016. The response protocol to minimise risks to water users was coordinated by the Murray Regional Algal Coordinating Committee. This included appropriate treatment by water utilities that ensured that reticulated town water supplies remained safe to drink.

D. Water Trading

Reporting Matter	Supporting evidence to be provided by Basin States	Response (milestone achievement/compliance status)
The implementation of water trading rules.		
D1 Compliance with the Basin Plan water trading rules *Applicable to Schedule 12, Matter 16, Indicator 16.1 and BPIA 29.1-31.1*	Website links to the publication of information regarding an Approval Authority's interest in a trade (s12.38(2)). Documentation to support compliance with s12.37 to s12.39 (notice of disclosure and reasons for restricting trade). Documentation that supports a compliance with s12.50 (water announcements to be made generally available).	NSW does not currently provide information on the disclosure of relevant interests where the approval authority is a party to the trade. NSW is aware of its obligations under section 12.38(2) of the Basin Plan and has commenced discussions with the Murray-Darling Basin Authority (MDBA) through the Trade Rules Working Group. It is anticipated that this issue will be addressed through a negotiated workplan with the MDBA. In addition, a Market Sensitive Information Policy is under development. The administrative process adopted for the receiving and determination of trades in NSW results in trades being "not refused." The definition/interpretation of trade refusal is currently subject to discussions with the Murray-Darling Basin Authority through the Trade Rules Working Group. Information about water announcements are made generally available and can be accessed via: http://www.water.nsw.gov.au/water-management/water-availability/water-allocations http://www.water.nsw.gov.au/water-management/water-availability/available-water-determinations/water-allocations-summary http://www.water.nsw.gov.au/about-us/media-releases#now http://www.water.nsw.gov.au/water-licensing/registers
D2 Trade processing times *Applicable to Schedule 12, Matter 16, Indicator 16.2; NPA 6d and BPIA 29.1-31.1*	Report on interstate and intrastate trade processing times (as per the COAG service and reporting standards for trade processing times). Confirmation that applications for entitlement and allocation trades to which the Commonwealth was a party were processed consistent with the agreed service standards.	The NSW water register provides a record of applications for approval. The details include: 1. the date the application was received 2. the water source to which it relates 3. the category of approval the applicant is seeking and type of work 4. the status of the application Details on trade processing times can be found on this register at: http://www.water.nsw.gov.au/water-licensing/registers NPA 6d - NSW has processed applications for water entitlement and allocation trades to which the Commonwealth was a party consistent with the agreed service standards for trade processing times for state approval agencies. BPIA 29.1 NSW is continuing to work with the MDBA to ensure NSW trade rules are consistent with the water trading rules set out by the Basin Plan. Several issues have been identified to be resolved as a part of Water Resource Plan development. Discussion between NSW and the Authority are ongoing to resolve the priority issues as identified by the Authority, to the satisfaction of both parties. BPIA 31.1 NSW provided initial reports to the MDBA of the information required under Section 12.43 - 12.44 and 12.46 in accordance with the request of the Authority and the Basin Plan respectively. Communication is ongoing between NSW and the Authority and further reporting under Section 12.46 may be required depending on the outcome of these discussions.

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 water trading rules *Applicable to Schedule 12, Matter 16; NPA 6a, 6b and 6e and BPIA 29.1*	Basin States will review and exercise their best endeavours to ensure that any necessary amendments are made to their water trading rules to ensure they are consistent with the Plan water trading rules by 1 July 2014 or in accordance with the expiry of transitional or interim water resource plans. In addition, surface water trade within a regulated system, between regulated systems or within an unregulated system must be free of any restriction on changing the location at which water can be taken, and not be subject to any volumetric limit, except for defined allowable restrictions. The Basin States are required to notify the MDBA of all restrictions on the trade of surface water and the reasons for the decision within 30 days of commencement of the rules or no later than the date of effect of the restriction. The Basin States are also required to report any surface water entitlements which are not consistent with clauses 28 to 32 of the NWI.	NPA 6a NSW has removed volumetric or other barriers to permanent trade out of water irrigation areas that are inconsistent with the Basin Plan water trading rules. NPA 6b NSW has not introduced restrictions on the trading of water access entitlement, except where consistent with the Basin Plan water trading rules. NPA 6e NSW confirms that entitlements in regulated surface water systems are consistent with clauses 28 to 32 of the NWI, unless where otherwise agreed.BPIA 29.1 NSW is continuing to work with the MDBA to ensure NSW trade rules are consistent with the water trading rules set out by the Basin Plan. Several issues have been identified to be resolved as a part of Water Resource Plan development. Discussion between NSW and the Authority are ongoing to resolve the priority issues as identified by the Authority, to the satisfaction of both parties.
Approval processes for trade of water access rights		
D4 Disclose interests, give reasons if restricting trade, provide notice, and publish on website. *Applicable to Schedule 12, Matter 16, Indicator 16.1 and BPIA 30.1*	An approval authority must disclose to each party to a proposed trade any legal or commercial interest it, or a related party, has in the water access right to be traded and any commercial interest it has in the activities of any water market intermediary involved in the trade before the trade occurs, as soon as practicable. If an approval authority has approved a trade which it was a party, it must publish that fact including details of the type of water access right. If an approval authority rejects a proposed trade, it must notify the relevant parties in writing of its reasons. An approval authority who has restricted a trade of a water access right for any reason must give notice of the decision and the reasons for the decision as soon as is practicable but in any case within 30 days after the decision to restrict the trade.	NSW does not currently provide information on the disclosure of relevant interests where the approval authority is a party to the trade. NSW is aware of its obligations under section 12.38(2) of the Basin Plan and has commenced discussions with the Murray-Darling Basin Authority (MDBA) through the Trade Rules Working Group. It is anticipated that this issue will be addressed through a negotiated workplan with the MDBA. In addition, a Market Sensitive Information Policy is under development. Where a decision is made to reject or restrict a trade, the NSW approval authority notifies and gives reasons in writing to the relevant parties. This would be done within the 30 day timeframes specified.
Information and reporting requirements		
D5 Provide information on water access rights and water trade rules.	A Basin State will provide the MDBA with certain information about water access rights conferred under	Matter 16.1 NSW does not currently provide information on the disclosure of relevant interests where the approval authority is a party to the trade. NSW is aware of its obligations under section 12.38(2)

Applicable to Schedule 12, Matter 16 and BPIA 31.1	Basin State law. If the information is changed, the Basin State will give the changed information to the MDBA as soon as is practicable, but in any case, no later than the date of effect of the change. A Basin State will provide a copy of the rules regulating the trade of tradeable water rights to the MDBA. If the rules include material by way of a reference to another document the Basin State must explain how the referenced document relates to the rules and the referenced document must be published online.	of the Basin Plan and has commenced discussions with the Murray-Darling Basin Authority (MDBA) through the Trade Rules Working Group. It is anticipated that this issue will be addressed through a negotiated workplan with the MDBA. In addition, a Market Sensitive Information Policy is under development. Matter 16.2 The administrative process adopted for the receival and determination of trades in NSW results in trades being "not refused." The definition/interpretation of trade refusal is currently subject to discussions with the Murray-Darling Basin Authority through the Trade Rules Working Group. BPIA 31.1 NSW provided initial reports to the MDBA of the information required under Section 12.43 - 12.44 and 12.46 in accordance with the request of the Authority and the Basin Plan respectively. Communication is ongoing between NSW and the Authority and further reporting under Section 12.46 may be required depending on the outcome of these discussions
D6 Report trade prices *Applicable to Schedule 12, Matter 16 and BPIA 31.2*	If a trade requires approval by an approval authority, or requires registration, the seller must notify the approval authority, or the registration authority, of the price in writing. Note the definition of 'seller' of water access rights can include the Basin States, the MDBA or the CEWH.	Currently all applications for water trade in NSW require the seller to include the price of trade. This information is currently available online via the NSW Water register. In additional work is currently being undertaken to review trade in NSW with the intent to publish value added summarized trading price information
D7 Make water announcements generally available *Applicable to Schedule 12, Matter 16 and BPIA 31.3*	Water announcements must be published in a way that makes them likely to be brought to the attention of interested members of the public. Basin States will implement a process to ensure that a person, who is aware of a water announcement before it is generally made available, must not trade a water access right that is subject to the water announcement, or whose price or value would be materially affected by the announcement until that announcement is made.	Available water determinations are published on DPI Water's website and incorporated in the public registers. They are also announced through Water Allocation Statements which are published on DPI Water's website and distributed to interested/registered members of the public using new technologies such as MailChimp. Strict rules are applied to ensure that market sensitive information is only accessible to limited people internally and made available to all members of the public at the same time. NSW has prepared a draft 'Handling Market Sensitive Information Policy' and complies with the provisions therein whilst the policy is being finalised and approved.

E. Northern Basin Review

Reporting Matter	Supporting evidence to be provided by Basin States	Response (milestone achievement/compliance status)
Reviews of the Plan		
E1 Provide advice and assessments of the MDBA's studies for, and review of, the work underpinning the SDLs in the Northern Basin. *Applicable to BPIA 13.1*	The MDBA will undertake the review of the work underpinning SDLs for the Northern Basin, in collaboration with New South Wales and Queensland, who will participate in the review and advise on associated studies, processes and final recommendations. States would need to provide evidence of their involvement in the review, including their participation in relevant advisory groups.	NSW is an active Basin state member on both the Northern Basin Intergovernmental Working Group (NBIWG) and the Environmental Science Technical Advisory Group (ESTAG). The NBIWG is providing guidance on the review of the Northern Basin SDLs, which will result in advice going to the MDBA on the case for changing the Basin Plan settings for the north. The ESTAG is providing guidance on the specific environmental science projects which aim to improve knowledge of environmental assets and flow requirements. NSW project-managed the waterhole mapping and analysis of persistence in the Lower Balonne and Barwon–Darling rivers project and has been directly involved in the other 6 Northern Basin projects. NSW is currently preparing a synopsis of the Northern Basin Review to provide a NSW perspective on the outcomes and limitations of the work undertaken.

F. SDL Adjustment & Constraints Management

Reporting Matter	Supporting evidence to be provided by Basin States	Response (milestone achievement/compliance status)
Constraints Management Strategy		
F1 Review and provide advice on measures recommended in the Constraints Management Strategy. *Applicable to NPA 7 and BPIA 14.1*	The Basin States will review the recommendations of the Constraints Management Strategy having regard to benefits and costs, available funding, third party impacts and community views. Basin States will advise the MDBA of their proposed responses to the relevant Constraints Management Strategy recommendations.	In accordance with NPA 7, NSW is actively participating in Phase 2 of the Constraints Management Strategy, including the development of Concept Plans (previously Business Cases) for the relaxation of constraints in the priority reaches. NSW has requested (and has partially received) funding from the Commonwealth to undertake the development of Concept Plans, and is following the process for the SDL adjustment mechanism as agreed through the inter-jurisdictional governance procedure. In accordance with BPIA 14.1 NSW has been an active participant in the review of the Constraints Management Strategy. This has included reviews of draft Concept Plans having regard to benefits and costs, available funding and community views throughout the progression of Phase 2 of the Constraints Management Strategy. Additional stakeholder consultation and measures to address third party impacts have been primary components in the reviews of the draft Concept Plans. NSW has responded to key recommendations of the constraints Management Strategy via the development of proposals for all key focus areas within its jurisdiction. Collaborative arrangements with other jurisdictions for an integrated constraints package in the Murray stem are continuing.
F2: Develop constraint management proposals. *Applicable to NPA 7 and BPIA 14.2*	Basin States may develop proposals to address constraints, having regard to the Constraints Management Strategy	NSW submitted draft concept proposals for 3 constraints measures in April 2016. These were included in the package of measures approved by the Ministerial Council and notified by BOC to the MDBA in May 2016 as supply measures. An additional constraints measure proposal has been developed for the Gwydir and will be considered by the MDBA as part of the Northern Basin Review.
Preparation of proposed measures for SDL adjustment		
F3 Prepare and assess proposals for supply measures. *Applicable to NPA 9 and BPIA 15.1*	Proponents will prepare proposals in accordance with assessment guideline and informed by the method for calculation of supply contribution. SDLAAC and BOC will assess the proposals.	In May 2016, the Ministerial Council of which NSW is a member, notified the MDBA of a package of 37 supply measures, including 6 constraints nominated as supply measures and a range of efficiency measures. Of these, NSW leads or is a co-proponent for 17 measures.
F4 Prepare and assess proposals for efficiency measures *Applicable to BPIA 15.2*	Basin States may develop and implement proposals for efficiency measures for inclusion in the BOC package of measures prior to 30 June 2016. Basin States may also develop and implement proposals for additional efficiency measures after 30 June 2016.	The Commonwealth is taking the lead on developing efficiency measures in line with the notified package of measures. A trial in the Lachlan is still under consideration.
Reallocation of reduction requests		
F5 Request MDBA to propose re-allocation of shared reduction amount.	Basin States can request the MDBA to propose a re-allocation of the shared reduction amount within affected SDL resource units in that Basin State.	NSW wrote to the MDBA prior to 30 June 2016 requesting that the default re-allocation of the shared downstream reduction amount apply.

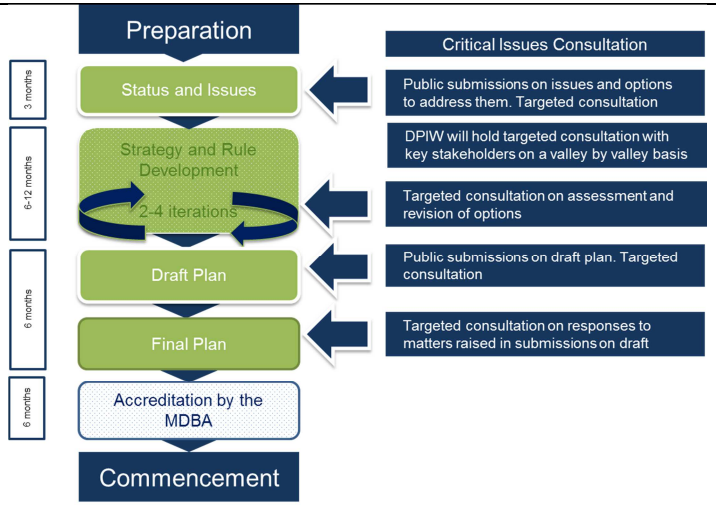
Applicable to BPIA 16.1		

G. Critical Human Water Needs

Reporting Matter	Supporting evidence to be provided by Basin States	Response (milestone achievement/compliance status)
Risk management approach for inter-annual planning for critical human water needs arrangements		
G1 Consider the water available for critical human water needs before allocating water to other uses. *Applicable to BPIA 27.1*	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.	There was no critical water shortage in the southern connected Basin and Murray water sharing did not leave Tier 1 arrangements. NSW addressed critical human needs in the Lower Darling through a period of severe water shortage in 2015-16, however the Lower Darling was in NSW control and not part of the shared Murray system. NSW ensured critical needs were a priority and met in other NSW catchments as required.
G2 Make decisions on allocations. *Applicable to BPIA 27.2*	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. 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)).	There was no critical water shortage in the southern connected Basin and Murray water sharing did not leave Tier 1 arrangements.
Commencement and cessation of Tier 3 water sharing arrangements		
G3 Determine whether the trigger is reached and Tier 3 applies. *Applicable to BPIA 28.1*	The MDBA, through the preparation of the Water Resource Assessment will determine if the appropriate conditions apply. If New South Wales, Victoria or South Australia considers the triggers have been reached, its BOC member should advise the Executive Director, River Management Division, MDBA. The Guideline for triggers and processes for changing water sharing Tiers provides more information on how the MDBA will communicate a change in water sharing arrangements to the Basin States, CEWH and the Department.	There was no critical water shortage in the southern connected Basin and Murray water sharing did not leave Tier 1 arrangements.

H. Water Resource Plans

Reporting Matter	Supporting evidence to be provided by Basin States	Response (milestone achievement/compliance status)
Reporting requirements		
H1 Develop water quality management plans as part of their water resource plans that identify measures to achieve objectives. *Applicable to BPIA 22.1*	Please provide a statement of progress where water quality management plans have not yet been developed. The Handbook for Practitioners for Chapter 10, Water Resource Plan Requirements provides guidance regarding the development and accreditation of water resource plans.	Water quality management plans will form part of the Water Resource Plan package, and are included in the revised project management approach outlined below. Detailed technical analysis has commenced on understanding the current risks to water quality in each valley, and the development of objectives and strategies to address these.
Develop of water resource plans for accreditation		
H2 Develop water resource plans for accreditation *Applicable to BPIA 24.1*	Please provide a statement of progress where water resource plans have not yet been developed.	2015-16 has seen many changes to the departments managing water for NSW. As part of this, the injection of a dedicated project management team into the development of WRPs is allowing expert DPI Water staff to concentrate on delivery of key technical content. Following this revised project management approach, delivery timelines for NSW's 22 WRPs have been reconsidered in order to provide all stakeholders with improved visibility of NSW's progress and process. These new timelines have been informally discussed with MDBA and other key stakeholders, and will allow for continuous engagement leading through to step-wise delivery of WRPs to the MDBA for accreditation. End-to-end process mapping and overlay of deliverable timelines from all Basin Plan project inputs are assisting integration and delivery. Updated timelines for each WRP area, showing stakeholders exactly how and where they can interact and receive knowledge products, will soon be published on the DPI Water website and circulated more widely. The new delivery format is being piloted in the Gwydir surface water WRP area and includes:

		 As part of the preparation phase for all WRPs, technical information is being collated, including: • Surface water risk assessments - for most plan areas are nearing completion; • Groundwater risk assessments - review to ensure consistency with surface water assessments, as well as collation of additional information elements such as groundwater dependent ecosystems; • Modelling - reporting on baseline diversion limits and current conditions, where appropriate; • Collation of issues raised during the NSW Water Sharing Plan remake process; • Aboriginal cultural values and uses; • Water quality and salinity status; • Economic and social status of a plan area for triple-bottom line approach; • Objectives of a plan, and strategies to monitor and evaluate those; and • Other information peculiar to a plan area including recreational fishing, water for domestic use, key environmental assets, ecosystem functions, and so forth This information will be made publicly available, and submissions on any other relevant issues for the area invited. A full list of issues will then be run through a multicriteria assessment and triage, in order to determine which strategies and rules will be most effective for their treatment. From this, the plan will be drafted, running through a process for public and targeted consultation before being progressed through to the MDBA in its final format for accreditation. The intention is that water resource planning in NSW has a clear and consistent approach, improving the transparency of development and delivery for all interested parties.
Development of an integrated hydrologic model across the Basin		
H3 Adopt eWater source	Please provide a statement of progress where eWater source has not yet been adopted.	NSW has made progress on developing Source models of all surface water sources. Border Rivers is at an advanced state as a result of collaboration with Queensland and is expected to be complete by

Applicable to BPIA 25.1	The MDBA standard for water resource plan accreditation is eWater Source for water resource planning and operations, having regard to the modelling practices of Basin States and the nature of water resource plan areas and operational readiness of the model as it relates to a water resource plan area.	early 2017. Additional resources have been put towards the Murrumbidgee Source model, with demand calibration expected to be completed by early 2017. All other models have foundational stages completed up to headwater inflow calibration. NSW is planning a review early 2017 to assess strategy to complete.

Statement of reasons why watering not undertaken complying Basin Environmental Watering Priorities (BAEWP) for 2015–16 (Refer Matter 10 – Indicator 10.3 and BP IA Task 20.2)

Section 8.44 of the Basin Plan (2012) requires that: If a person undertakes environmental watering other than in accordance with the Basin annual environmental watering priorities accessible at http://www.mdba.gov.au/sites/default/files/pubs/2015-16-Basin-annual-environmental-watering-priorities.pdf that person must give to the Authority a statement of reasons why environmental watering has not been undertaken in accordance with the Basin annual environmental watering priorities (8.44(1)). The person must give the statement to the Authority as soon as practicable, but in any event within four months after the end of the water accounting period in which the environmental watering was undertaken (8.44(2)). The Authority may publish on its website the statement of reasons given.

	Basin annual environmental watering (BAEWP) priorities for 2015–16	Jurisdictions to consider reporting	Please tick (x), where BAEWP not complied with	Statement of reasons why BAEP not followed
River flows and connectivity				
1	***Basin-wide flow variability and longitudinal connectivity:*** *Provide flow variability and longitudinal connectivity within rivers to support refuge habitats.*	NSW, Vic, ACT, SA, Qld, CEWH, TLM		
2	***River Murray weir pool variation*****:** *Ensure a variable flow pattern and lateral connectivity through coordinated weir pool management in the River Murray from Euston to Blanchetown.*	NSW, Vic, SA, CEWH, TLM		
3	***Coorong, Lower Lakes and Murray Mouth:*** *Improve water quality, fringing vegetation and native fish movement by varying the water levels in Lakes Alexandrina and Albert to maintain flows into the Coorong and Murray Mouth.*	SA, CEWH, TLM,		NA
Native vegetation				
4	***Basin-wide in-stream and riparian vegetation:*** *Maintain and where possible improve the condition of in-*	NSW, Vic, ACT, SA, Qld, CEWH, TLM		

	Basin annual environmental watering (BAEWP) priorities for 2015–16	Jurisdictions to consider reporting	Please tick (x), where BAEWP not complied with	Statement of reasons why BAEP not followed
	stream riparian vegetation, through in-channel freshes.			
5	***Mid-Murrumbidgee Wetlands:*** *Improve the condition of wetland vegetation communities in the mid-Murrumbidgee wetlands.*	NSW, CEWH	X	This priority was only partially met as piggy-back flows were unable to be delivered to mid-Murrumbidgee wetlands. Community concerns again prevented this action despite numerous forums to discuss these concerns and reach consensus. To compensate for the lack of piggy-back flows to mid-Murrumbidgee wetlands, a number of smaller deliveries were made where water could be delivered via infrastructure. Mid-Murrumbidgee wetlands which received environmental water responded positively with improved vegetation condition and small waterbird breeding events taking place in conjunction with watering activities.
6	***Macquarie Marshes:*** *Maintain semi-permanent wetland vegetation in core refuge areas in the Macquarie Marshes*	NSW, CEWH		
7	***Moria grass:*** *Maintain the condition and range of Moria grass in Barmah–Millewa Forest by supplementing a natural event and extending the duration of inundation.*	NSW, Vic, CEWH, TLM		
Waterbirds				
8	***Basin-wide waterbird habitat and future population recovery:*** *Improve the complexity and health of priority waterbird habitat to maintain species richness and aid future population recovery.*	NSW, Vic, ACT, SA, Qld, CEWH, TLM		
Native fish				
9	***Basin-wide native fish habitat and movement:*** *Maintain native fish populations by protecting and improving the condition of fish habitat and providing*	NSW, Vic, ACT, SA, Qld, CEWH, TLM		

	Basin annual environmental watering (BAEWP) priorities for 2015–16	Jurisdictions to consider reporting	Please tick (x), where BAEWP not complied with	Statement of reasons why BAEP not followed
	opportunities for movement.			
10	***Northern Basin fish refuges:*** *Protect native fish populations and in-stream habitats, particular drought refuges, in the northern Basin.*	NSW, Qld, CEWH		
11	***Silver perch:*** *Contribute to the long-term recovery of silver perch by maintaining key populations, supporting recruitment and facilitating movement and dispersal.*	NSW, Vic, ACT, SA, Qld, CEWH, TLM		