

Ramsar National Report to COP13

Section 1: Institutional Information

Important note: the responses below will be considered by the Ramsar Secretariat as the definitive list of your focal points, and will be used to update the information it holds. The Secretariat's current information about your focal points is available at <http://www.ramsar.org/search-contact>.

Name of Contracting Party

The completed National Report **must be accompanied by a letter** in the name of the Head of Administrative Authority, confirming that this is the Contracting Party's official submission of its COP13 National Report. It can be attached to this question using the "Manage documents" function (blue symbol below)

> Australia

You have attached the following documents to this answer.

[Ramsar_National_Report-Australia-letter_re_submission-signed-Jan_2018.docx.pdf](#) - Letter from Head of Australia's Ramsar Administrative Authority

Designated Ramsar Administrative Authority

Name of Administrative Authority

> Commonwealth Environmental Water Office Australian Government Department of the Environment and Energy

Head of Administrative Authority - name and title

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Designated Government National Focal Point for Matters Relating to The Programme on Communication, Education, Participation and Awareness (CEPA)

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Designated Non-Government National Focal Point for Matters Relating to The Programme on Communication, Education, Participation and Awareness (CEPA)

Name and title

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Section 2: General summary of national implementation progress and challenges

In your country, in the past triennium (i.e., since COP12 reporting)

A. What have been the five most successful aspects of implementation of the Convention?

1)

> Integration of wetlands into national research and natural resource management programs, including funding for wetland projects – which has supported enhanced resourcing of site management, monitoring and research to support adaptive management of sites by local site managers. These programs include research programs (National Environmental Science Program and climate change adaptation research), funding programs (National Landcare Program, Reef Trust, Green Army, Murray Darling Basin projects and initiatives) and other programs/strategies (Climate Change Adaptation Strategy, bioregional assessments of the potential impacts of unconventional gas and coal mining developments on water and the environment, etc). Development of the Wetlands in the Great Barrier Reef Management Strategy 2016-21, set out a framework for improved management of wetlands in Reef catchments.

2)

> Environmental watering in the Murray-Darling Basin – cooperative arrangements with states/territories and local stakeholders to deliver environmental water to key environmental assets (including Ramsar wetlands), and better understanding of the impacts of that watering on vegetation, fish, waterbirds and foodwebs.

3)

> Improved national frameworks for assessing the condition of wetlands have enhanced, improved standardisation of and clarified the way we regularly assess the condition of Ramsar sites, including for potential change in ecological character. This has led to the finalisation of assessments for Towra Point, Riverland, Muir-Byenup and Lake Gore, and will improve national consistency of the approach to Article 3.2 assessment. This will be enhanced by greater adoption of wetland condition assessment and inventories in the state and territory jurisdictions.

The completion of development of a national Framework for identifying the ecological condition of wetlands, the Integrated Ecological Condition Assessment (IECA) Framework for Aquatic Ecosystems. The use of the Peel-Yalgorup Ramsar site as a case study was useful to demonstrate the application of the Framework. Use of the Australian National Aquatic Ecosystem (ANAE) Classification System, and an extension of the system to classify and map intertidal and subtidal habitats in Queensland.

4)

> Work on climate change and wetlands - including International Partnership for Blue Carbon and investigation into the carbon mitigation potential of coastal and freshwater wetlands.

At the state level, Victoria has undertaken projects to assist wetland managers in understanding and addressing the impacts on wetlands from climate change:

- A decision support framework to assist natural resource managers in understanding the potential impacts of climate change on coastal wetlands, identifying their adaptive capacity and in setting realistic objectives and planning for their future management.
- Assessment of the resilience of two Ramsar sites to the future predicted impacts of large-scale drivers of change, including climate change.

During the triennium, South Australia was also active in this area, with several regional climate change adaptation plans released that include wetlands.

5)

> Strong community engagement – in identification and management of Ramsar sites and on-ground wetland restoration and management projects, as well as wetland CEPA activities, including celebration of World Wetlands Day each year. Increased availability of information, mapping and tools to the public, including through the Queensland website, WetlandInfo, and other jurisdictional websites.

B. What have been the five greatest difficulties in implementing the Convention?

1)

> Accommodating the dynamism of ecological systems within Ramsar requirements - for example, difficulty in maintaining ecological character as described at the time of listing in a dynamic system, affected by a highly variable climate, ongoing succession and climate change; similar difficulties in providing evidence of recovery and restoration to a static baseline; difficulty in maintaining condition of a site that is affected by outside influences (eg changing bird populations within a flyway).

2)

› Water management in a changing climate – including growing demands for water for urban, agricultural and industrial uses along with likely decreasing rainfall in many parts of Australia. There is a need for better understanding of regional climate change scenarios to inform protected area management and decisions within catchments, including water extraction/water resource planning. Measures of management effectiveness may not be robust in a changing climate.

3)

› Managing cumulative impacts - for example population and development pressures on coastal wetlands along the eastern coast and south-west Western Australia and the impacts on groundwater (including aquifers) and surface water of mining developments.

4)

› Limited investment in long-term research and consistent monitoring - to identify changes to ecological character, assess the effectiveness of interventions and support adaptive management. Some progress has been made on monitoring the impact of feral pests and weeds, and through initiatives such as the Long Term Intervention Monitoring Project to monitor and evaluate the outcomes of Commonwealth environmental water delivery in the Murray-Darling Basin.

5)

› Data collection and reporting requirements – there would be benefits in greater collaboration between the Australian and State Governments and other wetland stakeholders to coordinate condition monitoring programs, management, evaluation and reporting requirements on Ramsar sites. Time and resources have been required to prepare and upload data on sites in the transition to the new RSIS, some of which is not directly relevant to Australia's own data and legislative requirements. There is also duplication between the reporting requirements for a variety of international Conventions and initiatives.

C. What are the five priorities for future implementation of the Convention?

1)

› Managing wetlands in a changing climate – The rapidly changing climate has led to direct and significant pressures on the hydrological processes that maintain the values of many of the sites designated under the Ramsar Convention. How this impacts on Convention policy for notifying change in ecological character and mitigation responses will be a priority consideration for policy development. This will involve recognising the need to redefine ecological character in dynamic terms rather than as a static state, and the implications of this for Ramsar Convention guidance and processes.

2)

› Exploring the role of wetlands in climate change mitigation (including Blue Carbon, freshwater wetlands), and how this may support the ongoing management, wise use and restoration of wetlands.

3)

› Managing wetlands in the context of emerging development pressures, including particularly peri-urban development – developing CEPA and advocacy tools that promote the value of effective wetland management (including introducing new wetlands) in supporting improved public health and well-being in large urban environments.

4)

› Economic valuation of ecosystem services of wetlands – to inform wise use, environmental impact assessment, catchment planning, climate change adaptation, responses and compensation measures. Development of tools that will assist land managers to prioritise management actions based on the services and values wetland ecosystems provide.

5)

› Providing targeted funding for the ongoing management of Ramsar sites to maintain their ecological character.

D. Do you (AA) have any recommendations concerning implementation assistance from the Ramsar Secretariat?

› 1. Assistance for Oceania Contracting Parties remains critical given ongoing capacity constraints in many small island Contracting Parties within Oceania. This includes research on climate change impacts, blue carbon, inventories and regional capacity building initiatives.

2. STRP to work with contracting parties to define ecological character in a changing climate – that will enable sites to be conserved/maintained into a future characterised by shifts in water availability, temperature, weather conditions and species distribution.

3. Secretariat to consider how best to support CEPA implementation through practical tools/support for CEPA National Focal Points.

4. Improve usability of RSIS for contracting parties, including appropriate provision for information relevant to management, and clarification of processes for finalisation and upload.

E. Do you (AA) have any recommendations concerning implementation assistance from the Convention's International Organisation Partners (IOPs)? (including ongoing partnerships and partnerships to develop)

> 1. IOPs continue to play an important role in supporting NFPs to deliver CEPA outcomes, and in supporting on-ground management of Ramsar sites, including monitoring and evaluation.

2. Relevant IOPs continue to support research on migratory bird habitat requirements and critical habitats in Flyways, including site fidelity/requirements for endangered species in the East Asian-Australasian Flyway.

2. Updating of Ramsar Convention waterbird population estimates (for calculating 1 percent of bird population - Criterion 6) for the East-Asian-Australasian Flyway using recent Wetlands International data, and further work on revising other population estimates.

F. How can national implementation of the Ramsar Convention be better linked with implementation of other multilateral environmental agreements (MEAs), especially those in the 'biodiversity cluster' (Convention on Biological Diversity (CBD), Convention on Migratory Species (CMS), Convention on International Trade in Endangered Species (CITES), World Heritage Convention (WHC), and United Nations Convention to Combat Desertification (UNCCD) and the United Nations Framework Convention on Climate Change (UNFCCC)?

> Simplifying, harmonising and avoiding duplication in reporting. Considering use of a core set of biodiversity goals/targets and reporting questions for all Conventions, with a limited number of additional specific questions for each Convention. Limiting global reporting to a few key indicators.

G. How can implementation of the Ramsar Convention be better linked with the implementation of water policy/strategy and other strategies in the country (e.g., on sustainable development, energy, extractive industries, poverty reduction, sanitation, food security, biodiversity)?

> There is strong existing coordination between environment, water, agriculture and central policy agencies within Australia.

Ramsar sites are provided with a degree of environmental protection under the national Environment Protection and Biodiversity Conservation Act, and at state level through protected area legislation. They have also been prioritised in current funding arrangements for the National Landcare Program.

Continued work will be undertaken to better understand environmental water requirements for Ramsar systems and better link these with water policy/strategy (particularly water allocation and licensing) within Australia's jurisdictions.

H. Do you (AA) have any other general comments on the implementation of the Convention?

> It is critical to the effectiveness of resources used to support the implementation of the Convention that efforts are made to continue to simplify and improve the efficiency of Convention governance and business processes, including particularly improving the effectiveness of the Standing Committee and its Working Groups, including the work being undertaken by the Facilitation Working Group.

Streamlining Contracting Party and Secretariat administrative processes – including those relating to nomination, assessment of change, and reporting, so that greater attention and resources can be given to improving management (both guidance and support).

I. Please list the names of the organisations which have been consulted on or have contributed to the information provided in this report

> Australian Government Departments of the Environment and Energy, Agriculture and Water Resources, Prime Minister and Cabinet, Foreign Affairs and Trade, and Industry, Innovation and Science.

Agencies, including Geoscience Australia, Great Barrier Reef Marine Park Authority, Murray-Darling Basin Authority, and Australian Curriculum, Assessment and Reporting Authority.

State and Territory Governments, including:

ACT Environment, Planning and Sustainable Development Directorate

NSW Office of Environment and Heritage

NT Department of Environment and Natural Resources

QLD Department of Environment and Science

SA Department of Environment, Water and Natural Resources

TAS Department of Primary Industries, Parks, Water and Environment

VIC Department of Environment, Land, Water and Planning

WA Department of Biodiversity, Conservation and Attractions

Non-government organisations, including the Australian Wetlands Network, Conservation Volunteers Australia, Hunter Wetlands Centre Australia, Sydney Olympic Park Authority and Peel Harvey Catchment Council.

Section 3: Indicator questions and further implementation information

Goal 1. Addressing the drivers of wetland loss and degradation

Target 1

Wetland benefits are featured in national/ local policy strategies and plans relating to key sectors such as water, energy, mining, agriculture, tourism, urban development, infrastructure, industry, forestry, aquaculture, fisheries at the national and local level.

1.1 Have wetland issues/benefits been incorporated into other national strategies and planning processes, including: {1.3.2} {1.3.3} KRA 1.3.i

Please select only one per square.

a) National Policy or strategy for wetland management	<input type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input type="checkbox"/> C=Partially <input checked="" type="checkbox"/> D=Planned <input type="checkbox"/> X=Unknown <input type="checkbox"/> Y=Not Relevant
b) Poverty eradication strategies	<input checked="" type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input type="checkbox"/> C=Partially <input type="checkbox"/> D=Planned <input type="checkbox"/> X=Unknown <input type="checkbox"/> Y=Not Relevant
c) Water resource management and water efficiency plans	<input checked="" type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input type="checkbox"/> C=Partially <input type="checkbox"/> D=Planned <input type="checkbox"/> X=Unknown <input type="checkbox"/> Y=Not Relevant
d) Coastal and marine resource management plans	<input checked="" type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input type="checkbox"/> C=Partially <input type="checkbox"/> D=Planned <input type="checkbox"/> X=Unknown <input type="checkbox"/> Y=Not Relevant
e) Integrated Coastal Zone Management Plan	<input type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input checked="" type="checkbox"/> C=Partially <input type="checkbox"/> D=Planned <input type="checkbox"/> X=Unknown <input type="checkbox"/> Y=Not Relevant
f) National forest programmes	<input checked="" type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input type="checkbox"/> C=Partially <input type="checkbox"/> D=Planned <input type="checkbox"/> X=Unknown <input type="checkbox"/> Y=Not Relevant
g) National policies or measures on agriculture	<input checked="" type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input type="checkbox"/> C=Partially <input type="checkbox"/> D=Planned <input type="checkbox"/> X=Unknown <input type="checkbox"/> Y=Not Relevant
h) National Biodiversity Strategy and Action Plans drawn up under the CBD	<input checked="" type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input type="checkbox"/> C=Partially <input type="checkbox"/> D=Planned <input type="checkbox"/> X=Unknown <input type="checkbox"/> Y=Not Relevant
i) National policies on energy and mining	<input type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input checked="" type="checkbox"/> C=Partially <input type="checkbox"/> D=Planned <input type="checkbox"/> X=Unknown <input type="checkbox"/> Y=Not Relevant

j) National policies on tourism	<input checked="" type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input type="checkbox"/> C=Partially <input type="checkbox"/> D=Planned <input type="checkbox"/> X=Unknown <input type="checkbox"/> Y=Not Relevant
k) National policies on urban development	<input type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input checked="" type="checkbox"/> C=Partially <input type="checkbox"/> D=Planned <input type="checkbox"/> X=Unknown <input type="checkbox"/> Y=Not Relevant
l) National policies on infrastructure	<input type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input checked="" type="checkbox"/> C=Partially <input type="checkbox"/> D=Planned <input type="checkbox"/> X=Unknown <input type="checkbox"/> Y=Not Relevant
m) National policies on industry	<input type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input checked="" type="checkbox"/> C=Partially <input type="checkbox"/> D=Planned <input type="checkbox"/> X=Unknown <input type="checkbox"/> Y=Not Relevant
n) National policies on aquaculture and fisheries {1.3.3} KRA 1.3.i	<input checked="" type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input type="checkbox"/> C=Partially <input type="checkbox"/> D=Planned <input type="checkbox"/> X=Unknown <input type="checkbox"/> Y=Not Relevant
o) National plans of actions (NPAs) for pollution control and management	<input checked="" type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input type="checkbox"/> C=Partially <input type="checkbox"/> D=Planned <input type="checkbox"/> X=Unknown <input type="checkbox"/> Y=Not Relevant
p) National policies on wastewater management and water quality	<input checked="" type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input type="checkbox"/> C=Partially <input type="checkbox"/> D=Planned <input type="checkbox"/> X=Unknown <input type="checkbox"/> Y=Not Relevant

1.1 Additional information

> The key national mechanism for achieving the conservation of wetlands and their resources across sectors is the Environment Protection and Biodiversity Conservation (EPBC) Act 1999. Under this Act, matters of national significance are protected, including the ecological character of Ramsar sites, listed threatened species and ecological communities and migratory species. Any action (including sectoral development projects) which may have a significant impact on a matter of national environmental significance must be referred for assessment under the Act. The Environment Protection and Biodiversity Conservation Regulations 2000 set out requirements for managing Ramsar sites in accordance with Australian Ramsar Management Principles.

a) A Ramsar Implementation Plan for implementing the Ramsar Strategy 2016-2024 in Australia is under development.

c) and p) Wetland issues are comprehensively incorporated into Australia's national water strategies and planning processes. The National Water Initiative (NWI) continues to provide Australia's blueprint for national water reform. It commits Australian governments to integrated management of water for the environment and achieving a sustainable level of take from water systems. The NWI also commits governments to statutory water plans and entitlement systems to lock in water for the environment. The Murray Darling Basin Plan (made on 22 November 2012) ensures the sustainable use of water resources and gives effect to relevant international agreements, including the Ramsar Convention. Implementation of the Basin Plan has continued in this reporting period, with parts of the 'environmental watering plan' now taking effect. The MDBA has prepared Basin annual environmental watering priorities, and a Basin-wide environmental watering strategy. The Basin states have prepared annual environmental watering priorities, and have completed a number of long-term watering plans. The first evaluation of the Basin Plan commenced in 2017, and will assess the status of implementation and whether there are signs of environmental improvement.

d) There are three Ramsar sites across the 58 Australian Marine Parks that are managed by the Director of National Parks. Management arrangements for these marine parks are being finalised, though management plans which reference Ramsar wetlands within those marine parks, the Ramsar Convention and the Ramsar

Management Principles.

f) The Carbon Farming Initiative (CFI) is still in effect under the Emissions Reduction Fund (ERF). The ERF builds on the CFI, expanding coverage to encourage emissions reductions across the economy. The Australian Government has responsibilities under the CFI Regulations concerning water interception activities, specifically plantation forestry.

The protection of Ramsar and other wetlands is incorporated into the Tasmanian Regional Forest Agreement between the Australian and Tasmanian governments.

h) A review was undertaken in 2016 of Australia's Biodiversity Conservation Strategy. On 25 November 2016, environment Ministers endorsed the review report and agreed to revise the Strategy based on the review's findings, to continue to deliver Australia's international biodiversity-related commitments, and identify opportunities for improvement. Revision of the Strategy is underway, and governments are consulting on a first draft.

(i) Australia is one of the first countries to include wetlands in its National Greenhouse Accounts, enabling greenhouse gas mitigation initiatives in wetlands to contribute towards Australia's emission reduction targets.

Target 2

Water use respects wetland ecosystem needs for them to fulfil their functions and provide services at the appropriate scale inter alia at the basin level or along a coastal zone

2.1 Has the quantity and quality of water available to, and required by, wetlands been assessed to support the implementation of the Guidelines for the allocation and management of water for maintaining the ecological functions of wetlands (Resolution VIII.1, VIII.2) ? 1.24.

C=Partially

2.1 Additional Information

> This response is relevant to 2.1, 2.2, 2.3, 2.4, 2.5, 3.1, 3.2, 3.3, 3.4

Australian water resource management:

In Australia, state governments are responsible for planning, allocating and managing water resources.

The Intergovernmental Agreement on a National Water Initiative (NWI) is Australia's blueprint for water reform. In 2004 the Australian Government signed an Intergovernmental Agreement on an NWI with the governments of New South Wales, Victoria, Queensland, South Australia, the Australian Capital Territory and the Northern Territory. The NWI is a shared commitment by governments to increase the productivity and efficiency of Australia's water use, to provide water for rural and urban communities, to improve the health of Australia's surface and groundwater systems by establishing the necessary policy and legislative instruments to return all water resource systems to environmentally sustainable levels of extraction.

The Australian Government provides national leadership and coordination for the NWI, the National Water Quality Management Strategy (NWQMS) and its Australian and New Zealand Guidelines for Fresh and Marine Water Quality. The NWQMS and the Guidelines are voluntary, with jurisdictional governments, responsible for the day to day management of water and water dependent ecosystems, using the guidance as they see fit.

In terms of groundwater, the following initiatives have been undertaken to help inform management:

- National Atlas of Groundwater Dependent Ecosystems (BOM 2016)
- National Groundwater Strategic Framework 2016-2026 (Australian, State and Territory Governments 2016)

Murray-Darling Basin:

The Murray Darling Basin Plan established sustainable diversion limits for surface water and groundwater, and a 'water quality and salinity management plan', which commenced in this reporting period. This plan provides objectives for water-dependent ecosystems, including Ramsar wetlands, such that the quality of water is sufficient to maintain the ecological character of those wetlands. Water quality management plans must identify the key causes of water quality degradation and must also specify measures to be undertaken that contribute to the achievement of the objectives of water-dependent ecosystems, including Ramsar wetlands.

Basin states, in implementing the 'environmental watering plan', are defining environmental watering requirements for wetlands across the Murray-Darling Basin. These requirements have been set for a number of Ramsar sites in the Murray-Darling Basin, such as for the Coorong and Lower Lakes, and will be set for more sites in the next two years. This planning aims to guide the use of water recovered for the environment.

In addition, in the implementation of the Basin Plan, a Risk Strategy has been developed to identify risks to the condition and continued availability of water (current and future) and strategies to manage those risks.

There are four regional sustainable water strategies in place in Victoria developed in 2006-2011. These set out long-term plans to secure the water future of Victoria's regions. These strategies identify threats to water availability in each region and identify policies and actions to help water users, water corporations and catchment management authorities manage and respond to those threats over the next 50 years. They take account of environmental water needs (<https://www.water.vic.gov.au/planning-and-entitlements/water-resource-planning/sustainable-water-strategies>).

2.2 Have assessments of environmental flow been undertaken in relation to mitigation of impacts on the ecological character of wetlands (Action r3.4.iv)

C=Partially

2.2 Additional Information

> See response to Q2.1 above.

A number of projects have been undertaken across northern Australia to identify the flows needed to maintain the health of wetlands, including:

- National Environmental Science Program (NESP) Northern Australia Environmental Resources Hub Project 1.3.1 Critical water needs to sustain freshwater ecosystems and aquatic biodiversity in the Mitchell River (a Gulf river catchment) aims to improve our understanding of the critical flow needs to sustain freshwater ecosystems in the Mitchell River catchment and the implications of future land and water resource development. In particular, the project aims to predict the consequences of future development on important ecosystem linkages between the river and its flood-plain wetlands associated with flood flows, and to better understand other potential risks associated with likely changes to in-stream flow regimes.

<http://www.nespnorthern.edu.au/projects/nesp/environmental-water-needs-mitchell-river/>

- NESP Northern Australia Environmental Resources Hub Project 1.4 Contribution of rivers to the productivity of floodplains and coastal areas of the southern Gulf of Carpentaria is examining which flows make the biggest contributions to aquatic production, wetland and coastal ecosystems, and biodiversity within the Gulf.

<http://www.nespnorthern.edu.au/projects/nesp/links-gulf-rivers-coastal-productivity/>

At individual wetlands, environment water management plans have been developed to achieve ecological objectives for wetlands and the related water requirements, water delivery and works and measures to maximise environmental outcomes. Examples include:

- Barmah-Millewa Forest Environmental Water Management Plan 2012

(<https://www.mdba.gov.au/publications/report/barmah-millewa-environmental-water-management-plan>)

- Hattah Lakes Environmental Water Management Plan 2012 (<https://www.mdba.gov.au/publications/mdba-reports/hattah-lakes-environmental-water-management-plan>)

- Lake Elizabeth Environmental Water Management Plan 2013

(http://www.vewh.vic.gov.au/__data/assets/pdf_file/0005/368708/Lake-Elizabeth_EWMP.pdf)

2.3 Have Ramsar Sites improved the sustainability of water use in the context of ecosystem requirements?

C=Partially

2.3 Additional Information

> See response to Q2.1 above.

Ecological Character Descriptions, prepared for Ramsar sites in Australia, provide conceptual models of the relationship between ecosystem components, processes and services/benefits and help establish the water use requirements of the wetlands. These are used to inform decisions about water allocations and environmental watering requirements for Ramsar sites.

The Murray-Darling Basin Plan provides for the protection and restoration of wetlands, including Ramsar sites, through the determination of a sustainable diversion limit (SDL), which is an environmentally sustainable level of extraction for consumptive uses (urban, industrial and agricultural) that will not have a negative impact on the natural environments and the functions of the rivers, waterways, groundwater and wetlands of the Basin. Commonwealth environmental water has been delivered to Ramsar sites across the Murray-Darling Basin (MDB) to protect and restore the ecological character of Ramsar sites. This includes delivery of environmental water to sites including the Gwydir Wetlands, Narran Lakes, Macquarie Marshes, sites along the Murray River and the Coorong.

The Commonwealth Environmental Water Knowledge and Research Project (\$10m over 6 years to June 2019) aims to improve the science available to support environmental water management, including for the 16 Murray-Darling Basin wetlands. This new knowledge will inform improved environmental water management to achieve ecological outcomes for wetlands in the MDB.

Outside of the Basin, a number of relevant projects have been undertaken including:

- The Tomago wetland restoration project (Hunter Estuary) involved detailed hydrodynamic modelling and design, construction and application of innovative onground engineering works to provide appropriate watering to regenerate saltmarsh. This project won a National Trust - Environmental Heritage Award and an Engineering Australia, NSW Environmental Heritage Award.

2.4 Have the Guidelines for allocation and management of water for maintaining ecological functions of wetlands (Resolutions VIII.1 and XII.12) been used/applied in decision-making processes. (Action 3.4.6.)

C=Partially

2.4 Additional Information

> See Q2.3 above

The Australian Government provides national leadership and coordination for the National Water Initiative

(NWI), the National Water Quality Management Strategy (NWQMS) and its Australian and New Zealand Guidelines for Fresh and Marine Water Quality (Guidelines). The NWQMS and the Guidelines are voluntary, with jurisdictional governments, responsible for the day to day management of water and water dependent ecosystems, using the guidance as they see fit.

Under the NWI, Policy guidelines for water planning and management were developed in 2010 and endorsed by the Council of Australian governments in 2012. These establish water planning as the vehicle for the setting of sustainable environmental, social and economic objectives for the management of water resources, and are consistent with the Ramsar Guidelines for allocation and management of water for maintaining ecological functions of wetlands.

The Murray Darling Basin Plan established a framework to manage water in a way that maintains the ecological function of wetlands. Elements of this framework have been discussed previously, and include such things as the 'environmental watering plan.' The principles and decision-making process recommended by the Guidelines are part of the Basin Plan's management framework. For instance, the principles 'sustainability as a goal', 'credibility of science' and 'flexibility of management' are embedded in the Basin Plan's environmental watering principles. All environmental water holders and river operators must apply these principles.

The Victorian Environmental Water Holder develops seasonal watering plans (<http://www.vewh.vic.gov.au/watering-program/seasonal-watering-plan>). The seasonal watering plan is a statewide plan that guides environmental watering decisions in Victoria. The annual seasonal watering plan is based on proposals developed by catchment management authorities and Melbourne Water (a water statutory authority), drawing from scientific river and wetland studies and community engagement. Each year, waterway managers scope potential environmental watering for their regions for the coming year in seasonal watering proposals. The proposals draw on environmental flow studies, and longer term plans such as environmental water management plans and regional waterway strategies. The proposals also incorporate information and advice from local communities. The seasonal watering plan is a collated summary of the proposals.

2.5 Have projects that promote and demonstrate good practice in water allocation and management for maintaining the ecological functions of wetlands been developed (Action r3.4.ix.)

A=Yes

2.5 Additional Information

> In the Murray-Darling Basin, planning and water allocation policies and programs have been implemented to maintain the ecological functions of wetlands.

The Living Murray program aims to return water to the environment and build water management structures which will help deliver the water to over 37,000 hectares of significant forests, wetlands and lakes along the River Murray. It involves a 12 year partnership between the MDBA and the New South Wales, Victorian, South Australian and Australian Capital Territory governments. Through a \$650 million investment, it has acquired almost 500 GL of environmental water and constructed a series of water management structures to help environmental watering occur more efficiently.

As part of the \$30 million Long-Term Intervention Monitoring Project, the Commonwealth Environmental Water Office evaluates the contribution of environmental water to the objectives of the Murray-Darling Basin Plan, with the results contributing to adaptive management of the water holdings. A series of case studies have been undertaken to evaluate the extent to which environmental water is used to maintain the ecological character of three Ramsar sites in the Basin - Barmah-Millewa Forest, Hattah-Kulkyne Lakes and Macquarie Marshes.

A Project is being implemented to provide guidance and tools for the management of water levels in Lake Alexandrina and Lake Albert, South Australia, and the operation of the barrages. Project deliverables, including a public Policy and a Barrage Operating Strategy, that aim to facilitate transparent, robust and adaptive decision-making to guide the management of water levels in the Lower Lakes aimed at maintaining the ecological character of the site.

2.6 How many household/municipalities are linked to sewage system? SDG Target 6.3.1.

G=More than (households/municipalities)

> 8600000

2.6 Additional Information

> There are approximately 8.6 million household connections.

In Australia, most households are linked to sewerage systems or have septic systems in place. Within cities, coverage would be almost 100% for sewerage systems, while in regional areas, the coverage is less.

As an example:

- In 2012 in New South Wales, there was 95% coverage of households by sewerage systems and 4% used septic tanks (Australian Bureau of Statistics - Domestic Water Use - 4616.1).

2.7 What is the percentage of sewerage coverage in the country? SDG Target 6.3.1.

E=Exact number (percentage)

> 87

2.7 Additional Information

> Approximately 87% of households nationwide.

2.8 What is the percentage of users of septic tank/pit latrine? SDG Target 6.3.1.

F=Less than (percentage)

> 13

2.9 Does the country use constructed wetlands/ponds as wastewater treatment technology? SDG Target 6.3.1.

A=Yes

2.9 Additional Information

> This is widespread, with constructed wetlands being used for both stormwater and wastewater treatment. The Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar site includes the Western Treatment Plant which uses constructed wetlands to treat sewage and stormwater from half of Melbourne (a city of 4.4 million people). The plant treats sewage using a series of large ponds using anaerobic and aerobic lagoons. Once the process is complete the cleaned water is either discharged to Port Phillip Bay or recycled after further treatment. The aerobic ponds and former treatment ponds which are no longer required for sewage treatment provide habitat for large numbers of waterbirds.

2.10 How do the country use constructed wetlands/ponds as wastewater treatment technology perform? SDG Target 6.3.1.

A=Good

2.10 Additional Information

> Dedicated wastewater ponds (lagoons) are used for primary, secondary and tertiary treatment. This includes filtering, sedimentation removal, breakdown of organic matter, de-nitrification and disinfection.

2.11 How many centralised wastewater treatment plants exist at national level? SDG Target 6.3.1.

Y=Not Relevant

2.11 Additional Information

> None - wastewater treatment is generally administered at the state/territory and local government levels.

2.12 How is the functional status of the wastewater treatment plants? SDG Target 6.3.1.

A=Good

2.12 Additional Information

> All wastewater treatment plants need to meet operating standards established and enforced by the relevant state/territory government.

Of 1234 plants, most are operational, while 10 are decommissioned, 1 is non-operational, 24 are under construction (Geoscience Australia – National Wastewater Treatment Facilities Database, 2012).

2.13 The percentage of decentralized wastewater treatment technology, including constructed wetlands/ponds is? SDG Target 6.3.1.

A=Good

2.13 Additional Information

> Response should be a percentage - in Australia it is at least 7%.

Based on the available data, of the 1234 Water Treatment Plants, 72 use sewage treatment ponds, 1 uses sewage treatment wetlands, 7 use waste stabilisation ponds, 1 uses wastewater ponds, 4 use wastewater treatment ponds and 5 use water stabilisation ponds – a total of 90 using ponds or wetlands (ie 7% of total) (Geoscience Australia – National Wastewater Treatment Facilities Database, 2012). This only includes large scale plants – smaller ponds on farms, at industrial sites and within urban developments also treat waste water.

2.14 Is there a wastewater reuse system? SDG Target 6.3.1.

A=Yes

2.14 Additional Information

> Wastewater reuse is employed across Australia in accordance with the policies of the state/territory in which it occurs. These policies set out environmental and health standards, based on the National Water Quality Management Standards.

The 'Australian Guidelines for Sewerage Systems - Effluent Management' cover, in general terms, the management of effluents and the extent to which they can be applied to land or can be discharged to coastal waters or inland waters depending on the treatment level applied. Sampling and monitoring guidance is also provided.

State based report cards provide details of achievements in water re-use, for example in South Australia, there is reporting on the amount of wastewater recycled from treatment plants and the amount of stormwater stored in aquifers for later use in the greater Adelaide region

<https://data.environment.sa.gov.au/NRM-Report-Cards/Documents/How-much-of-our-wastewater-and-stormwater-is-recycled-2016.pdf>

2.15 What Is the purpose of the wastewater reuse system? SDG Target 6.3.1.

S=Landscape

2.15 Additional Information

Please indicate if the wastewater reuse system is for free or taxed or add any additional information.

> R, S, T, U

Wastewater is reused for residential, commercial and agricultural purposes. The wastewater is treated to different standards depending on its use.

The 'Australian Guidelines for Sewerage Systems - Reclaimed Water' sets out the quality required of reclaimed water and extent of monitoring that might be anticipated for secondary and tertiary treated effluents for various potential uses. These include drinking water (limited as yet in Australia), watering sports fields, golf courses and public spaces, agriculture, pasture, aquaculture, recreational impoundment, environmental and industrial uses.

The Western Treatment Plant in Victoria, which treats half of Melbourne's sewage, produces 40 billion litres of high quality Class A recycled water a year. This is supplied to customers and used to water the plant's pastures and wetlands. Consumers currently using recycled water from the Western Treatment Plant include the:

- Werribee Tourist Precinct — including the golf club, zoo and mansion
- Werribee Employment Precinct — a 900-hectare site for research and learning institutions.

Target 3

Public and private sectors have increased their efforts to apply guidelines and good practices for the wise use of water and wetlands. {1.10}

3.1 Is the private sector encouraged to apply the Ramsar wise use principle and guidance (Ramsar handbooks for the wise use of wetlands) in its activities and investments concerning wetlands? {1.10.1}

KRA 1.10.i

A=Yes

3.1 Additional Information

> The Australian Government and the states/territories promote the wise use principle to a wide range of sectoral stakeholders. The Environment Protection and Biodiversity Conservation Act and the Water Act promote the wise use principle.

The Australian Government produced Fact Sheets in 2016 on agriculture and coastal/urban development, promoting recognition of wetland values, and wise use of wetlands.

At the state level, the Queensland Wetlands Program (QWP) promotes wise use and best practice management, through WetlandInfo, a web portal which includes:

• Wetland management tools and guides - <https://wetlandinfo.ehp.qld.gov.au/wetlands/management/wetland-management/>

• Assessment methods - <https://wetlandinfo.ehp.qld.gov.au/wetlands/resources/tools/assessment-search-tool/index.jsp>

• Water and aquatic ecosystem monitoring -

<https://wetlandinfo.ehp.qld.gov.au/wetlands/assessment/monitoring/current-and-future-monitoring/>

• Fact sheets - <https://wetlandinfo.ehp.qld.gov.au/wetlands/resources/publications/fact-sheets/>

Walking the Landscape and the associated catchment stories, is a process developed and led by the QWP. Through facilitated workshops, it effectively synthesises a wealth of catchment information and knowledge to produce interactive online map journals, which are published to WetlandInfo. The process is also used to prioritise areas for management intervention and is an important tool for educating the private sector on catchment scale interactions and associated management requirements.

3.2 Has the private sector undertaken activities or actions for the conservation, wise use and management of {1.10.2} KRA 1.10.ii

Please select only one per square.

a) Ramsar Sites	<input checked="" type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input type="checkbox"/> C=Partially <input type="checkbox"/> D=Planned <input type="checkbox"/> X=Unknown <input type="checkbox"/> Y=Not Relevant
b) Wetlands in general	<input checked="" type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input type="checkbox"/> C=Partially <input type="checkbox"/> D=Planned <input type="checkbox"/> X=Unknown <input type="checkbox"/> Y=Not Relevant

3.2 Additional information

> a) Conservation Volunteers Australia (CVA) has been working with private land managers to improve the catchments of a number of Ramsar sites, including Bowling Green Bay, Queensland. CVA has worked with private companies to manage wetland values at Ramsar-listed wetlands including Newcastle Coal Infrastructure Group at Hunter Estuary Wetlands Ramsar Site, and Exxon Mobil at Cheetham Wetlands, part of the Port Phillip Bay Ramsar Site.

Greening Australia has worked with the Alcoa Foundation which provided \$2 million for environmental projects in the Peel-Harvey Catchment in WA, to improve the Murray, Serpentine and Harvey rivers, reverse the loss of threatened species habitat and restore and relink the landscape.

As part of its Reef Aid initiative, Greening Australia (with Birdlife Australia, CVA, WetlandCare Australia) has partnered with the Australian Government Reef Trust program on a \$14 million project to restore 700 ha of coastal habitat in the Great Barrier Reef region.

The Great Barrier Reef Marine Park Authority (GBRMPA) is an active participant in the Lower Burdekin Water Alliance - bringing together private and public sector activities in the Bowling Green Bay Ramsar area.

In the Hunter Estuary Ramsar site, funds from Industry compensation schemes have been applied to wetland revegetation schemes, and satellite tracking of threatened waterbirds (freckled duck). The Hunter Wetlands Centre Australia has propagated waterplants for planting in artificial ponds built by coal companies to offset impacts on endangered frogs in the Hunter Estuary.

b) A number of primary producers are working to restore and manage wetlands on their properties. For example, the Department of Environment, Water, and Natural Resources, South Australia (DEWNR) has been working with private property owners to achieve substantial restoration of wetlands in the south east of South Australia. For example:

- A partnership agreement between Nature Glenelg Trust (NGT), the Native Vegetation Council and OneFortyOne Plantations together with community donations purchased and is restoring a 300 hectare site adjacent to an existing 600 hectare wetland reserve. See:

<http://natureglenelg.org.au/current%20projects/mount-burr-swamp-habitat-restoration-reserve/>

- Timberlands Pacific Pty Ltd has partnered with DEWNR, to Identify Important wetland habitat on their forestry estates in the South East. Timberlands Pacific Pty Ltd manage significant tracts of Pine forests that host up to 40 remnant wetlands, providing refuge areas for many native plants, some regionally and nationally rare.

- A partnership between DEWNR, Birds SA and the Conservation and Hunting Alliance, South Australia to restore Tolderol wetland within the Coorong and Lakes Alexandrina and Albert focussed on habitat improvement including restoration of sedge communities for migratory birds.

There are also a number of conservation trusts that work with landholders to restore and manage wetlands eg the Nature Conservation Trust of NSW.

GBRMPA and the Queensland Government work indirectly with the private sector through Natural Resource Management Groups in the Great Barrier Reef catchment supporting and advising on the conservation, wise use and management of wetlands for Reef health.

Wetland activities undertaken by government and non-government stakeholders in Queensland have been consolidated into a publicly available project search tool for the state (<https://wetlandinfo.ehp.qld.gov.au/wetlands/resources/tools/wetland-project/>)

3.3 Have actions been taken to implement incentive measures which encourage the conservation and wise use of wetlands? {1.11.1} KRA 1.11.i

A=Yes

3.3 Additional information

> Under the Income Tax Assessment Act 1997 a range of incentives are provided to taxpayers. These may apply to wetlands and organisations promoting wetland conservation:

- Providing a donor, who has donated a gift of \$5,000 or more to an environment or heritage organisation, the opportunity to claim the donation against their tax returns over a five year period
- Providing a capital gains tax exemption for gifts of property left in a will to an eligible organisation
- Providing income taxation concessions for landowners entering conservation covenants with eligible organisations
- Providing environmental organisations with deductible gift recipient status.

The Western Australian Government administers the Healthy Wetland Habitats program, a voluntary conservation incentives program. The program offers management action planning and funding to implement key restoration activities on high ecological value wetlands on private property.

There are a variety of Australian Government and state/territory programs providing grants for conservation works, including on wetland habitats.

3.4 Have actions been taken to remove perverse incentive measures which discourage conservation and wise use of wetlands? {1.11.2} KRA 1.11.i

Z=Not Applicable

Target 4

Invasive alien species and pathways of introduction and expansion are identified and prioritized, priority invasive alien species are controlled or eradicated, and management responses are prepared and implemented to prevent their introduction and establishment.

4.1 Does your country have a comprehensive national inventory of invasive alien species that currently or potentially impact the ecological character of wetlands? {1.9.1} KRA 1.9.i

A=Yes

4.1 Additional information

> Australia is home to many plants and animals that have been introduced since European settlement. Pest species are commonly recognised, both nationally and internationally, as a threat to wetlands. At the national level, the Weeds of National Significance (WoNS) list identifies thirty two weeds that have been prioritised based on their invasiveness, potential for spread and environmental, social and economic impacts.

At the jurisdictional level, each state and territory government in Australia has a number of established pest animals and weed lists under their legislation and land managers are responsible for control of them on their land. Some pests are wetland species (for example, water buffalo and the red-eared slider turtle) while others, such as feral pigs, are found particularly in association with wetlands and riparian ecosystems.

Australia also maintains a number of other lists at the national and jurisdictional level that may have implications for species within wetlands including Notifiable Animal Diseases, Reportable Diseases of Aquatic Animals and National priority plant pests. Work is also currently underway to identify and prioritise exotic species that have predominantly environmental impacts. Invasive species that have potential to impact on wetlands may be included in this list.

In terms of fish, carp have become the dominant freshwater fish in south-east Australia, comprising up to 80% of the fish biomass in many areas, resulting in biomasses as high as 3144 kg/ha and densities of up to 1000 individuals/ha in some parts of the Murray-Darling Basin. A project estimating carp biomass and density across their range is a deliverable of the National Carp Control Plan research program.

Victoria has undertaken a project to identify priority wetland weeds in the state and their impacts (https://www.water.vic.gov.au/_data/assets/pdf_file/0022/69322/Knowledge-document-of-the-impact-of-priority-wetland-weeds-Part-1-16-June-2017.pdf and https://www.water.vic.gov.au/_data/assets/pdf_file/0023/69323/Knowledge-document-of-the-impact-of-priority-wetland-weeds-Part-2-16-June-2017.pdf). The first report documents how 28 weeds were selected as priority wetland weeds from an initial list of 174 species. The second describes the impacts of the 30 priority weeds on wetland values, including information about knowledge gaps.

4.2 Have national policies or guidelines on invasive species control and management been established or reviewed for wetlands? {1.9.2} KRA 1.9.iii

C=Partially

4.2 Additional information

> The Intergovernmental Agreement on Biosecurity (IGAB) (January 2012) is an agreement between the Commonwealth and state and territory governments which aims to strengthen the working partnership between governments and to improve the national biosecurity system and minimise the impact of pests and disease on Australia's economy, environment and the community. Recently, the National Biosecurity Committee (NBC) endorsed a definition of environmental biosecurity, as the protection of the environment and/or social amenity from the risks and negative effects of pests and diseases entering, emerging, establishing or spreading in Australia. The control and management of invasive species in wetlands is captured under this definition.

Schedules under the IGAB identify priority areas for collaboration, such as surveillance and diagnostics, engagement and communications, and biosecurity research, development and extension, and span across

both primary production and environment sectors.

The Australian Pest Animal Strategy and the Australian Weeds Strategy provide a national framework for addressing pest animal and weed issues whilst maintaining the profitability and sustainability of Australia's primary industries and reducing the impact of pest animals on the environment.

These strategies aim to be consistent with current biosecurity policy, in particular the IGAB and are also guided by a range of other national strategies and action plans, including both the Australian Biodiversity Conservation Strategy and threat abatements plans under the Environment Protection and Biodiversity Conservation Act 1999. The Established Pests and Diseases of National Significance (EPDNS) Framework also provides a strategic, consistent, scientific, risk-based approach to managing the impacts of established pests and diseases.

Threat Abatement Plans of relevance to wetlands include those for feral cats, foxes, pigs, weeds and diseases – eg the infection of amphibians with chytrid fungus. The 'Threat abatement plan to reduce the impacts on northern Australia's biodiversity by the five listed grasses' was made in 2012 to address the threat of ecosystem degradation, habitat loss and species decline due to invasion of northern Australia by introduced gamba grass, para grass, olive hymenachne, mission grass and annual mission grass. Ramsar wetlands in northern Australia are under threat from these five species of invasive grasses.

There are also several Ramsar listed sites known to be affected by dieback caused by the root-rot fungus, *Phytophthora cinnamomi*. The 'Threat abatement plan for disease in natural ecosystems caused by *Phytophthora cinnamomi*' came into force in January 2014.

Development of a National Carp Control Plan is underway to investigate and plan for the potential release of a carp-specific virus (Cyprinid herpesvirus 3) as a biological control for European carp (*Cyprinus carpio*), a highly invasive species that has become the most abundant large freshwater fish in south-east Australia.

The control of weeds and pest animals is primarily undertaken by state and territory governments, therefore management policies and guidelines, including for wetlands, are also developed by state governments responsible for the geographic areas where wetlands occur.

4.3 How many invasive species are being controlled through management actions.

G=More than (species)

> 50

4.3 Additional information

If 'Yes', please indicate the year of assessment and the source of the information

> Of the approximately 3,207 species of introduced plants that have naturalised in Australia, about 500 taxa (species and genera) have been declared noxious or are under some form of legislative control in Australia. In mainland Australia, it is estimated that at least 73 species of introduced vertebrates have established wild populations, including 25 mammal species, 20 birds, four reptiles, one amphibian and at least 23 freshwater fish.

The Australian Government has committed \$15 million to assess the viability of releasing the Carp virus CyHV-3 as a biological control tool to manage the introduced European Carp. European Carp are a significant threat to native species in wetlands. Carp are now estimated to account for 70-90 per cent of fish numbers in some rivers of Murray-Darling Basin. As part of this process, a Strategic Assessment under the Environment Protection and Biodiversity Conservation Act 1999 will be conducted to consider the impacts carp, and the potential release of the carp virus, have on Ramsar wetlands.

At Commonwealth Ramsar sites, management action is being taken for invasive species. For example, at Kakadu National Park there are 7 invasive fauna and approximately 25 invasive flora being controlled through management actions. Tropical fire ants are considered a threat to some of the values of the Ashmore Reef Ramsar site. Management actions are being assessed to identify the best approach for responding to this threat. At Christmas Island National Park and Pulu Keeling National Park, seven invasive species are being controlled.

The Tasmanian State Government, in partnership with the regional Natural Resource Management organisation, local government and community groups, has undertaken the control of approximately 20 invasive flora species in the Pitt Water-Orielton Lagoon Ramsar site during the reporting period. The invasive species gorse (*Ulex europaeus*) has been targeted for management at the Moulting Lagoon site through a partnership with NRM South and local government.

Conservation Volunteers Australia received at least \$80,000 per annum to improve and maintain Hunter Wetlands National Park, with significant work undertaken to control spiny rush, pampas grass, groundsel and bitou bush.

Vertebrate pest shooting has continued to maintain pressure on populations of invasives in NSW Ramsar sites, in conjunction with mustering to control feral goat numbers.

Under the Coorong, Lower Lakes and Murray Mouth Recovery Projects Vegetation Program, strategic environmental pest control was undertaken across 10,600 hectares targeting priority species and key biodiversity areas.

In South Australia, DEWNR continues to implement carp exclusion devices at all managed wetlands in the Murray-Darling Basin.

The ACT Minister for the Environment and Heritage approved the Ginini Flats wetland complex Ramsar

management plan 2017 on 31 March 2017. The Plan includes objectives relating to management of feral pigs, feral horses and other pest animals within the Ramsar site.

A range of activities have occurred at Queensland Ramsar sites during the triennium to manage weeds and feral animal impacts. This includes control of declared class 1 and 2 weeds in Ramsar sites and feral pig control within the Shoalwater and Currawinya Ramsar wetlands.

4.4 Have the effectiveness of wetland invasive alien species control programmes been assessed?

C=Partially

4.4 Additional information

> Management actions, including invasive species control, have been assessed in a number of national parks, where plans are implemented and monitored in accordance with the Parks Australia Management Effectiveness Framework eg Kakadu National Park.

A number of research and monitoring projects are assessing invasive species control:

- For Christmas Island National Park, effectiveness of specific programs has been monitored (Island Wide Survey and crazy ant monitoring/biocontrol success mapping).
- NESP Threatened Species Recovery Hub Project 2.3 'Enhancing conservation outcomes for Christmas Island' is monitoring the impact of feral cat control on Christmas Island which has two Ramsar sites.
- NESP Northern Australia Environmental Resources Hub Project 2.5 'Defining metrics of success for feral animal management in northern Australia' is determining the impact of feral pigs, horses and cattle on aquatic systems (including wetlands and waterholes) in the context of regional and local feral animal control, local Indigenous aspirations and government priorities. Building on the Queensland Government's aquatic asset mapping, the research collaborates with local Indigenous communities in the Archer River Basin and will develop an aquatic resource inventory for the region. The inventory will categorise system vulnerability, quantify the structure and composition of wetlands to measure the impact of feral pigs, and will include waterhole mapping protocols. The project is also evaluating metrics used to assess how well control measures work in mitigating threats to aquatic ecosystems. <http://www.nespnorthern.edu.au/projects/nesp/defining-metrics-success-feral-animal-management-northern-australia/>
- Monitoring at Narran Lake Nature Reserve, NSW, found the wetlands had not suffered damage from goat browsing (as has occurred in previous years), indicating pest control measures have been successful.
- The Invasive Animals Cooperative Research Centre is undertaking a project to prioritise adaptation actions for managing invasive animals under climate change, through the development of an invasive species cost effectiveness framework within the Lake Eyre Basin and providing an approach which can be applied in other regions and at other scales.
- In South Australia, DEWNR has completed a study illustrating the benefits of excluding carp on amphibian recruitment in South Australian wetlands of the Murray-Darling Basin.

Goal 2. Effectively conserving and managing the Ramsar Site network

Target 5

The ecological character of Ramsar Sites is maintained or restored through effective, planning and integrated management {2.1.}

5.1 Have a national strategy and priorities been established for the further designation of Ramsar Sites, using the Strategic Framework for the Ramsar List? {2.1.1} KRA 2.1.i

C=Partially

5.1 Additional information

> Initial work has commenced on developing a paper on a strategic approach to Ramsar site nominations for Australia. This will be informed by the Convention's Strategic Framework for the Ramsar List.

5.2 Are the Ramsar Sites Information Service and its tools being used in national identification of further Ramsar Sites to designate? {2.2.1} KRA 2.2.ii

D=Planned

5.2 Additional information

> Once information on Australia's Ramsar sites are uploaded to the RSIS, relevant information will be used to inform future Ramsar site designations. The Australian Wetlands Database includes information on wetland types and locations to inform priorities.

5.3 How many Ramsar Sites have an effective, implemented management plan? {2.4.1} KRA 2.4.i

E=Exact number (sites)

> 63

5.4 For how many of the Ramsar Sites with a management plan is the plan being implemented? {2.4.2}

KRA 2.4.i

E=Exact number (sites)

> 63

5.5 For how many Ramsar Sites is effective management planning currently being implemented (outside of formal management plans ? {2.4.3} KRA 2.4.i

Y=Not Relevant

5.3 – 5.5 Additional information

> See Section 5 of this report.

The Australian Government manages seven of Australia's 65 Ramsar sites, with the Department of Defence managing a large part of an eighth. The Defence portion of Shoalwater and Corio Bays is managed in accordance with a Training Area Sustainability, Monitoring and Reporting Plan.

National Park management plans, which take account of Ramsar values, are being implemented in Kakadu, Christmas Island (covering Hosnies Spring and The Dales) and Pulu-Keeling (Management Plan 2016-2026 | Kakadu National Park; Management Plan 2014-2024 | Christmas Island National Park and Management Plan 2015-2025 | Pulu Keeling National Park)

There are three Ramsar sites in Australian Marine Parks managed by the Director of National Parks:

- Coral Sea Reserves Ramsar site, in the Coral Sea Marine Park
- Ashmore Reef Ramsar site, in the Ashmore Reef Marine Park in the North-West Network
- Elizabeth and Middleton Reefs, in the Lord Howe Marine Park in the Temperate East Network.)

Management plans are being developed for these marine parks which take into account Ramsar Convention requirements. While the new management plans are being developed, the Coral Sea, Ashmore and Elizabeth and Middleton Reefs Ramsar sites are managed consistently with their previous management arrangements including, for Ashmore and Elizabeth and Middleton Reefs, their former management plans and, for the Coral Sea Reserves Ramsar site, the provisions previously applying to the Coral Sea Conservation Zone.

At the state/territory level, as an example, the Western Australian Government manages 12 of Australia's 65 Ramsar sites. Management plans are available at:

<https://www.dpaw.wa.gov.au/management/wetlands/wetlands-of-national-and-international-importance>.

The ACT Minister for the Environment and Heritage approved a new plan, the Ginini Flats wetland complex Ramsar management plan 2017 on 31 March 2017.

For Queensland Ramsar sites, Ramsar Management Summaries are being developed to inform management planning undertaken in accordance with the range of planning and management legislation and policies under which Queensland's Ramsar sites are currently managed.

The Queensland Wetlands Program has also developed the 'Wetlands in the Great Barrier Reef Catchments Management Strategy 2016-21', which sets out a framework for the improved management of wetlands, including Bowling Green Bay and Shoalwater and Corio Bays Areas.

5.6 Have all Ramsar sites been assessed regarding the effectiveness of their management (through formal management plans where they exist or otherwise through existing actions for appropriate wetland management ? {1.6.2} KRA 1.6.ii

C=Partially

5.6 Additional information

> All wetland management plans in Australia are based on available scientific information and research, including completed Ecological Character Descriptions (ECDs). Plans identify values, threats and appropriate management responses. Implementation of plans is monitored, and plans are regularly reviewed.

In the Murray-Darling Basin, the effectiveness of environmental watering under the Murray-Darling Basin Plan is monitored through the Long Term Intervention Monitoring project, which monitors outcomes at seven areas within the Basin. Monitoring has shown that Commonwealth environmental water has helped maintain the ecological values of Ramsar sites by: supporting native fish breeding, recruitment and habitat; connecting rivers to wetlands and floodplains to support nutrient cycling and food chains, supporting plant and animal reproduction, including bird breeding events; and supporting the growth and germination of important plant communities such as river red gums.

The Victorian Auditor General's Office audit Meeting obligations to protect Ramsar wetlands was tabled in the Victorian Parliament in September 2016. The audit report drew attention to potential changes in ecological character at some Victorian Ramsar sites and recommended improved monitoring and adaptive management. The Victorian Department of Environment, Land, Water and Planning responded by developing a management action plan to address the recommendations. This was tabled in Appendix C of the audit report. Funding has been obtained to support implementation of the plan over the next three years. The plan focuses on improving management coordination at Ramsar sites between site managers and other agencies, establishing and implementing a monitoring, evaluation, reporting and improvement framework and improving the standard of management plans. All actions are being progressed. The plan will result in further improvements to adaptive management at Victoria's Ramsar sites.

Kakadu, Christmas Island and Pulu Keeling National Parks are developing performance monitoring plans for

their management plans, which includes assessment of wetland management actions and outcomes. The Nature Conservation Act 2014 (ACT) [part 8.4] provides a legislative requirement to prepare a Ramsar Wetland Management Plan. The Act requires the plan to be implemented and the Conservator of Flora and Fauna (a statutory position created under the Act) must monitor the effectiveness of the Plan and report to the Minister every 7 years.

5.7 How many Ramsar Sites have a cross-sectoral management committee? {2.4.4} {2.4.6} KRA 2.4.iv

E=Exact number (sites)

> 27

5.7 Additional information

If at least 1 site, please give the name and official number of the site or sites

> See Section 5 of this National Report. Examples include:

Australian Government – Kakadu National Park has a cross-sectoral committee.

NSW - Narran Lake (MoU with Traditional Owners); Paroo River Wetlands -(involvement of Traditional Owners); Myall Lakes (involvement of Traditional Owners)

SA – Coorong, Lakes Alexandrina and Albert Wetland – cross sectoral management arrangements

WA – Toolibin Lake (Recovery Catchment Team); Peel-Yalgorup (Technical Advisory Group); Roebuck Bay (jointly managed with Traditional Owner Groups); Eighty Mile Beach (jointly managed with Traditional Owner Groups); Lake Warden (Ramsar Management advisory group); Lake Gore (Ramsar Management advisory group); Vasse-Wonerup (Technical Working Group and Technical Advisory Group)

NT – Cobourg Peninsula (joint management with Traditional Owners), Kakadu National Park

ACT – the Ramsar site is wholly within Namadgi National Park. A range of consultative and management approaches are used to inform management of the broader area including with Traditional Owners.

5.8 For how many Ramsar Sites has an ecological character description been prepared (see Resolution X.15)? {2.4.5} {2.4.7} KRA 2.4.v

G=More than (sites)

> 55

5.8 Additional information

If at least 1 site, please give the name and official number of the site or sites

> For specific information, see Section 5 of this National Report.

Links to 55 published ecological character descriptions are at:

<http://www.environment.gov.au/water/wetlands/publications#mgmt-plans>

5.9 Have any assessments of the effectiveness of Ramsar Site management been made? {2.5.1} KRA 2.5.i

C=Some Sites

5.9 Additional information

If 'Yes' or 'Some sites', please indicate the year of assessment, which assessment tool did you use (e.g. METT, Resolution XII.15, and the source of the information

> See Q 5.6.

Management of Ramsar sites is assessed through regular reviews and reporting on reserve or Ramsar site management plans

Target 7

Sites that are at risk of change of ecological character have threats addressed {2.6.}.

7.1 Are mechanisms in place for the Administrative Authority to be informed of negative human-induced changes or likely changes in the ecological character of Ramsar Sites, pursuant to Article 3.2? {2.6.1} KRA 2.6.i

A=Yes

7.1 Additional information

If 'Yes' or 'Some sites', please summarise the mechanism or mechanisms established

> Australian governments have an agreed approach for making Article 3.2 notifications. The assessment and notification of change in ecological character must be evidence-based and undertaken in accordance with the National guidance on notifying change in ecological character of Australia's Ramsar wetlands (Article 3.2). A practice note to guide the process has recently been developed.

The Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) places an obligation on a person to not take an action that has, will have or is likely to have, a significant impact on the ecological character of a declared Ramsar wetland. The EPBC Act also obliges a person proposing to take an action that

they think may have a significant impact to refer the proposal to the Minister of the Environment and Energy for approval. This is the primary mechanism for the Department of the Environment and Energy (the Ramsar Administrative Authority) to be informed of negative human-induced changes or likely changes in the ecological character of Ramsar sites.

Specific projects and actions are being undertaken to assess threats to Ramsar sites and potential changes in condition, for example:

- NESP Northern Australia Environmental Resources Hub Project 2.6 'Guidelines for the management of threats to savanna riparian zones' has a component that is assessing the condition of and threats to Kakadu floodplains and surrounding floodplains. The project is developing maps of current threats, potential future distribution of key threats, key high-priority assets, critical areas to protect to avoid tipping points at which floodplains fail to support ecosystem function or cultural values. The project will provide baseline information for Ramsar reporting for Kakadu's Ramsar wetlands, and information on monitoring ecosystem health. <http://www.nespnorthern.edu.au/projects/nesp/managing-savanna-riparian-zones/>
- Regular assessments of site condition are undertaken, for example the status of the Coongie Lakes Ramsar site was assessed in relation to the limits of acceptable change (LAC) in ecological character, including for hydrology and waterbirds, as part of the draft Lake Eyre Basin: State of the Basin Condition Assessment 2016. See: <http://www.agriculture.gov.au/water/national/lake-eyre-basin/public-consultation-draft-condition-assessment-report>
- The Hunter Wetlands Centre Australia (site manager of Shortland) has been in communication with Ramsar administrators at state and federal level regarding likely changes in the ecological character of the Shortland extension of Hunter Estuary Ramsar site as a result of climate change and changes to water flows. HWCA has hosted site visits by state and federal wetlands policy managers to address ECD and RIS matters, including to discuss changes in ecological character and potential Article 3.2 notification.
- The Western Australian Government has assessed and reported on the condition of Becher Point Wetlands, Forrestdale and Thomsons Lakes and Peel-Yalgorup systems as part of supporting documents for the Strategic Assessment - Perth Peel Region.

7.2 Have all cases of negative human-induced change or likely change in the ecological character of Ramsar Sites been reported to the Ramsar Secretariat, pursuant to Article 3.2? {2.6.2} KRA 2.6.i

A=Yes

7.2 Additional information

If 'Yes' or 'Some cases', please indicate for which Ramsar Sites the Administrative Authority has made Article 3.2 reports to the Secretariat, and for which sites such reports of change or likely change have not yet been made > Once the Australian Government is advised that a change in ecological character has occurred or may occur at a Ramsar site, it works with the relevant site manager to investigate the issue and report any change to the Ramsar Secretariat.

Article 3.2 notifications have been made for the Coorong and Lakes Alexandrina and Albert Wetland Ramsar site, the Macquarie Marshes Ramsar site and the Gwydir Wetlands Ramsar site.

The Australian Government has recently made an Article 3.2 report to the Secretariat for the Towra Point Nature Reserve Ramsar site.

7.3 If applicable, have actions been taken to address the issues for which Ramsar Sites have been listed on the Montreux Record, including requesting a Ramsar Advisory Mission? {2.6.3} KRA 2.6.ii

Z=Not Applicable

Goal 3. Wisely Using All Wetlands

Target 8

National wetland inventories have been either initiated, completed or updated and disseminated and used for promoting the conservation and effective management of all wetlands {1.1.1} KRA 1.1.i

8.1 Does your country have a complete National Wetland Inventory? {1.1.1} KRA 1.1.i

B=No

8.1 Additional information

> Whilst there is a large amount of information on wetlands in Australia, there is no single comprehensive national inventory. A summary of available information on the extent of Australia's wetlands is available in Australia's State of the Environment 2016 - <https://soe.environment.gov.au/>

Recently, the Bureau of Meteorology, in its role as the national agency for water information, has produced a wide range of data, information and assessment products about the past, current and likely future state of inland waters. Other national agencies, such as Geoscience Australia and CSIRO, have also contributed to a significant increase in the information needed to support public understanding and debate on water resources and the environment.

At the National level, information can be found in the Australian Wetlands Database

(<http://www.environment.gov.au/water/wetlands/australian-wetlands-database>) on Australia's Ramsar

wetlands (up-to-date) and wetlands listed in a Directory of Important Wetlands in Australia (with contributions from all states/territories, but not updated since 2005).

Examples of state inventories/databases:

- Victoria maintains the comprehensive Victorian Wetlands Inventory (<https://www.data.vic.gov.au/data/dataset/victorian-wetland-inventory-current>) and an edit tool (<http://essolutions.com.au/wetlandedittool>) to allow individuals to contribute to the improvement of the inventory by registering and suggesting changes to the attributes of wetlands included in the Victorian Wetland Inventory. Updates to the inventory are undertaken annually.
- Queensland has developed WetlandMaps, an interactive online map server through which users can easily access wetland information via a web-based Geographic Information System (GIS) tool. WetlandMaps (<https://wetlandinfo.ehp.qld.gov.au/wetlands/facts-maps/get-mapping-help/wetland-maps/>) is available directly or via the WetlandSummary tool. The mapping includes wetland types, extent, groundwater dependant ecosystems and other relevant mapping layers. Wetland mapping and associated data is also available through the Queensland Globe and for download through QSpatial. Queensland’s wetlands mapping is in its fourth iteration and changes in wetland extent are reported on WetlandInfo.

8.2 Has your country updated a National Wetland Inventory in the last decade?

C1=Partially

8.2 Additional information

> See Q 8.1.

8.3 Is wetland inventory data and information maintained? {1.1.2} KRA 1.1.ii

A=Yes

8.3 Additional information

> Information on Australian Ramsar wetlands is available through the Australian Wetlands Database (<http://www.environment.gov.au/cgi-bin/wetlands/alphabet.pl>). This information is updated as Ramsar Information Sheets are reviewed and Ecological Character Descriptions are prepared for each site. Wetland data is maintained by the Australian Government and the states and territories. New wetland information made available to stakeholders since the COP12 National Report includes:

- East Australian Wetland Index - <http://data.gov.au/dataset/2016-soe-biodiversity-total-wetland-area-index-1983-to-2014>
- Ramsar Wetlands Upstream Catchments - <http://data.gov.au/dataset/ramsar-wetlands-upstream-catchments1>

8.4 Is wetland inventory data and information made accessible to all stakeholders? {1.1.2} KRA 1.1.ii

A=Yes

8.4 Additional information

> Data and mapping on the extent of wetlands is made available to the public through the Australian Wetlands Database, State of the Environment reporting, the Protected Matters Search Tool (<http://www.environment.gov.au/epbc/protected-matters-search-tool>) and on the national website, <http://data.gov.au>, as well as on state/territory websites eg WetlandInfo.

8.5 Has the condition* of wetlands in your country, overall, changed during the last triennium? {1.1.3}

Please describe on the sources of the information on which your answer is based in the free- text box below. If there is a difference between inland and coastal wetland situations, please describe. If you are able to, please describe the principal driver(s) of the change(s).

* ‘Condition’ corresponds to ecological character, as defined by the Convention

Please select only one per square.

a) Ramsar Sites	<input checked="" type="checkbox"/> N=Status Deteriorated <input type="checkbox"/> O=No Change <input type="checkbox"/> P=Status Improved
b) Wetlands generally	<input checked="" type="checkbox"/> N=Status Deteriorated <input type="checkbox"/> O=No Change <input type="checkbox"/> P=Status Improved

8.5 Additional information on a) and/or b)

> a) In the last Triennium, while Australia has not seen the widespread and significant dry conditions of the Millennium Drought (2001-2009), droughts have continued to affect significant areas of Australia. Demands for water, climate variability and long-term climate change have resulted in a number of Ramsar sites being under stress, faced with low flows and lack of natural flooding. The challenge of managing sites for

wise use when there is insufficient water to meet human, agricultural and environmental needs has been significant.

Other threats continue to affect specific Ramsar sites.

- The condition of the Towra Point Nature Reserve Ramsar site has declined during the last triennium – an Article 3.2 notification has since been made.
 - Mapping in 2016 indicates a continued decline in the extent of saltmarsh and a subsequent increase in mangroves across the Hunter Estuary Ramsar site.
 - Narran Lake has experience a deterioration in vegetation condition due to the combination of drought and reduced frequency of inundation.
 - Sites in Western Australia have been adversely affected by climate change eg a drying and acidification event at the Muir-Byenup Ramsar site was subject to a preliminary assessment which found that it was due to climate change, particularly declining rainfall which has reduced both surface and groundwater levels.
- b) According to the 2016 State of the Environment report, the condition of freshwater wetlands is generally reported by the jurisdictions to be overall poor to moderate. The report identifies trends in freshwater-related ecological processes and key species populations, through poor to good condition with stable trends for south-eastern and south-western regions, to good grades for much of the rest of the country. Although many ecological systems in the Murray-Darling Basin are in poor ecological condition, particularly in the southern Basin, the report identifies that implementation of the Murray-Darling Basin Plan is delivering positive outcomes. Early indications are that environmental watering in the Basin, along with the effects of natural floods, is contributing to ecological benefits for stream metabolism, macroinvertebrates, vegetation, frogs and fish.

Under the Lake Eyre Basin Intergovernmental Agreement, a review of the condition of watercourses and catchments is undertaken on a ten yearly basis. The 2016 State of the Basin condition assessment found that that Basin's water resources, aquatic biodiversity and riverine ecosystems are generally in good condition, largely due to the limited alteration of hydrological regimes or landscapes in that Basin.

The 2016-17 ACT Catchment Health Indicator Program (CHIP) report, released by ACT Waterwatch, is at:

http://www.act.waterwatch.org.au/Files/CHIP/chip%202016_17%20FINAL.pdf

A condition assessment for wetlands in the Great Barrier Reef catchments has recently been developed and reported in the 2016 report card <http://www.reefplan.qld.gov.au/measuring-success/report-cards/2016/wetland-condition/>

The 2017 Scientific Consensus Statement for the Great Barrier Reef is a review of the significant advances in scientific knowledge of water quality issues in the Great Barrier Reef to arrive at a consensus on the current understanding of the system. The Statement included a much expanded section on wetlands including pressures, state and trend, the role of wetlands in terms of water quality and treatment systems.

<http://www.reefplan.qld.gov.au/about/scientific-consensus-statement/>

8.6 Based upon the National Wetland Inventory if available please provide a baseline figure in square kilometres for the extent of wetlands (according to the Ramsar definition) for the year 2017. SDG Target 6.6

X=Unknown

8.6 Additional information

If the information is available please indicate the % of change in the extent of wetlands over the last three years.
> The variability of Australia's climate makes it difficult to identify the current extent and trends in wetland extent nationally.

According to the National Water Accounts (Bureau of Meteorology, 2014), the Murray-Darling Basin, which covers 14% of Australia's area, includes:

- some 30,000 wetlands, covering an area of around 25,000 km²
 - 40,000 km of major rivers and approximately 440,000 km of rivers in total
 - about 60,000 km² of floodplain area, which represents approximately 6% of the Murray-Darling Basin region.
- See <http://www.bom.gov.au/water/nwa/2014/mdb/contextual/physicalinformation.shtml>

The Eastern Australian Waterbird Survey provides baseline information with which to assess changes in, and impacts on, eastern Australian wetlands and rivers. The survey includes estuaries, coastal lakes, rivers, swamps, floodplains and saline lakes, as well as dams, reservoirs and impoundments. The survey results show that wetland area index for this eastern Australia survey was 126,084 ha in 2014, 86,654 ha in 2015 and over 200,000 ha in 2016. The wetland area across eastern Australia has declined to below the long-term average (which was 270,000 hectares over 1983-2016). The. Much of the variability over the last 3 years is due to rainfall conditions over the period. Longer term declines in extent of wetlands may be related to the effects of the Millenium Drought (2001-2009), in south-east and south-west Australia, and long-term rainfall decline. See:

<http://www.bom.gov.au/climate/updates/articles/a010-southern-rainfall-decline.shtml>

A desktop review by the National Inventory Systems and International Reporting Branch of DoEE of Australian coastal wetland surveys indicates that Australia has up to 10,400 km² of mangroves nationally.

Between late 2015 and early 2016, 7400 hectares of mangroves were affected by dieback along more than 1000 km of coastline of the Gulf of Carpentaria. Dieback was severe and wide-spread. The dieback event followed a poor wet seasons with very low rainfall, high air and sea temperatures and lower sea levels. A

National Environmental Science Program cross-Hub project is investigating the extent, patterns, condition and trend of the dieback. It is also fine-tuning mangrove assessment and monitoring methods, and training Indigenous ranger groups in these methods to improve detection of any future dieback events.
<http://www.nespnorthern.edu.au/projects/nesp/gulf-mangrove-dieback/>

Target 9

The wise use of wetlands is strengthened through integrated resource management at the appropriate scale, inter alia, within a river basin or along a coastal zone {1.3.}.

9.1 Is a Wetland Policy (or equivalent instrument) that promotes the wise use of wetlands in place? {1.3.1}
KRA 1.3.i

If 'Yes', please give the title and date of the policy in the green text box

C=In Preparation

9.1 Additional information

> The Australian Government is working with the states and territories, NGOs and other key stakeholders to develop a Ramsar Implementation Plan for Australia, to implement priority actions within the Ramsar Strategic Plan 2016-2024.

A number of jurisdictions have wetland policies in place. In Victoria, these include Water for Victoria 2016 and the Victorian Waterway Management Strategy 2013 <https://www.water.vic.gov.au/waterways-and-catchments/rivers-estuaries-and-waterways/strategies-and-planning>

The Victorian Government reiterated its long term commitment to protecting and improving waterway health in Water for Victoria, released in 2016, building on the direction outlined in the 2013 Victorian Waterway Management Strategy. The Government has invested \$130 million in protecting and improving the community values of rivers, wetlands and estuaries (waterways) for the period 2016-17 - 2020-21:

- \$90 million to implement regional waterway strategies and improve waterway health
- \$30 million to implement the Riparian Action Plan
- \$10 million to deliver onground environmental works and community engagement for the Gippsland Lakes (Water for Victoria - https://www.water.vic.gov.au/_data/assets/pdf_file/0030/58827/Water-Plan-strategy2.pdf)

The Western Australian government published guidelines for wetland management and restoration, monitoring and evaluating, available on the Department of Biodiversity Conservation and Attractions website at: <https://www.dpaw.wa.gov.au/management/wetlands/publications-and-links>

The Queensland Planning Act 2016 establishes a hierarchy of planning instruments that address State, regional and local interests in the land use planning and assessment system. Under the State Planning Policy (SPP), the biodiversity state interest provides that local government planning schemes must identify and protect any potential significant adverse environmental impacts on matters of state environmental significance (MSES), which includes wetlands. Matters of national environmental significance and local environmental significance are also integrated in schemes. The SPP is supported by SPP interactive mapping for plan making and development assessment.

9.2 Have any amendments to existing legislation been made to reflect Ramsar commitments?
{1.3.5}{1.3.6}

B=No

9.2 Additional information

> Ramsar sites continue to be protected as a matter of national environmental significance under the national Environment Protection and Biodiversity Conservation Act.

The national Water Act (Section 21(3)) required the development of the Basin Plan to give effect to relevant international agreements (including the Ramsar Convention) within the Murray-Darling Basin.

The Australian Government is conducting a review of governance of the Great Barrier Reef Marine Park Authority. Governance arrangements for the Authority were last considered in 2006 as part of the review of the Great Barrier Reef Marine Park Act and these will be examined to ensure they continue to serve the best interests of the Reef.

In the ACT, the Nature Conservation Act 2014 [part 8.4] provides a legislative requirement to prepare a Ramsar Wetland Management Plan. The Act requires the plan to be implemented and the Conservator of Flora and Fauna (a statutory position created under the Act) must monitor the effectiveness of the Plan and report to the Minister every 7 years. There is also a legislative trigger for impacts on Ramsar sites to be considered through an Environmental Impact Statement (Planning and Development Act 2007 - Schedule 4).

9.3 Do your country's water governance and management systems treat wetlands as natural water infrastructure integral to water resource management at the scale of river basins? {1.7.1} {1.7.2} KRA 1.7.ii

A=Yes

9.3 Additional information

> In previous Reports, information was provided on Australia's water governance and management arrangements, including the National Water Initiative, Water Act, and the Basin Plan.

Murray-Darling Basin:

The aim of the Murray-Darling Basin Plan 2012 is to ensure that water is shared between all users, including the environment, in a sustainable way. It does this by managing the basin as one system.

The Basin Plan established sustainable diversion limits for surface water and groundwater across the Basin, thus moving away from demand-driven water allocation. Wetlands are regarded as an integral part of a healthy working river, and water resource management under the Basin Plan reflects this.

Within the Murray-Darling Basin, there are 16 Ramsar sites covering more than 500,000 hectares in total.

Implementation of the Basin Plan and delivery of Commonwealth environmental water to Ramsar sites within the MDB is at multiple scales, including river basins.

In the Basin during the last 3 years, progress has been made on:

- water resource plans - a central component of the Basin Plan, they specify how water will be shared and managed within a specified catchment or area. The Basin Plan defines 36 water resource plan areas that cover surface water and/or groundwater resources. One plan has been accredited, while the remaining 35 are required to be completed by June 2019
- water recovery, through a combination of infrastructure efficiency investments and water purchase, including commencement of efficiency measures to recover an additional 450 GL by 2024
- implementation and review of Sustainable Diversion Limits
- environmental water planning and delivery
- Constraints Management Strategy, to overcome the physical, operational and management constraints that are affecting environmental water delivery.

Details are available in the 2017 report to Ministers on Implementation of the Basin Plan at:

<https://www.mdba.gov.au/mincoreportbp>

Lake Eyre Basin:

Two of Australia's Ramsar sites, Coongie Lakes and Lake Pinaroo are located in the Lake Eyre Basin. This Basin extends through South Australia, the Northern Territory, Queensland, and a small part of New South Wales.

The Coongie Lakes Ramsar site receives flows from the Cooper Creek river system in Queensland and crosses the border into South Australia where it terminates. Lake Pinaroo is located in the north-west corner of New South Wales.

The need for Basin wide management of the Lake Eyre Basin's water resources was recognised through the establishment of the Lake Eyre Basin Intergovernmental Agreement Act 2001. The Agreement provides for the development or adoption, and implementation of policies and strategies concerning water and related natural resources in the Lake Eyre Basin Agreement area to avoid or eliminate so far as reasonably practicable adverse cross-border impacts.

In September 2015, the Lake Eyre Basin won the prestigious Thiess International Riverprize in recognition of the unique cross-border alliance of community, government and natural resources management bodies that has achieved outstanding results in management, restoration or protection of the Basin's rivers. This 20-year partnership has kept rivers healthy while encouraging sustainable economic growth, particularly in the areas of tourism and organic beef production.

9.4 Have Communication, Education, Participation and Awareness (CEPA) expertise and tools been incorporated into catchment/river basin planning and management (see Resolution X.19)? {1.7.2}{1.7.3}

A=Yes

9.4 Additional information

> CEPA expertise and tools are widely used in catchment and river basin planning and management.

Under the National Water Initiative Agreement, all jurisdictions have agreed to engage water users and other stakeholders, including through open and timely consultation with all stakeholders on plans and decisions that might affect them.

The planning frameworks outlined in the Murray-Darling Basin Plan require transparent community consultation at all scales of planning.

The Murray Darling Basin Authority, under its Strategic Goal 2 (Strengthen engagement with the community) consults extensively with the community about their water needs, preferences and the impact of water policy on their industries and communities. The MDBA seeks to continually improve its stakeholder engagement in Basin scale initiatives like the Northern Basin Review and the Sustainable Diversion Limit Adjustment process through a range of initiatives including establishing regional offices and staff with a focus on community engagement staff across the basin and providing educational and communication resources for students and teachers and the community on various aspects of river basin planning.

The CEWO employs six local engagement officers in regional locations across the Basin to work with communities to ensure local knowledge and views are taken into account in environmental water management decisions. The CEWO also works closely with communities in relation to environmental water use planning and management by participating in existing local engagement processes established by State agencies and CMAs, such as environmental water advisory groups.

Conservation Volunteers Australia (CVA), a national NGO, undertook Newcastle Wetland Connections, a 4-year

CEPA program in the upstream catchment of the Hunter Estuary Wetlands Ramsar Site, engaging 1800 participants in wetland education and community conservation. CVA launched two CEPA programs: Revive Our Wetlands and One Reef, to engage citizens in wetland protection, monitoring and restoration. The Peel-Harvey Catchment Council, Mandurah Western Australia produced Australia's first CEPA Action Plan for site 482 - Wetlands and People Plan-Peel Yalgorup System The Plan was launched in November 2017. The Hunter Estuary Ramsar site provides an example of a small sub-catchment where CEPA expertise and tools underpin management of the Ramsar site. The Hunter Wetlands Centre Australia Visitors Centre and site support a range of interpretive materials and signage, which help inform catchment managers. Each of Tasmania's three Natural Resource Management organisations has developed regional strategies which include annual public Ramsar education activities. These are promoted through a range of events, such as World Wetlands Day.

The South Australian Department of Environment, Water and Natural Resources implements a program of active management of 46 floodplain wetland complexes that actively involves the community in the planning, management and assessment of effectiveness of management in the wetlands. The Department is currently developing a CEPA Action Plan for The Coorong and Lakes Alexandrina and Albert Ramsar site.

The Queensland Wetlands Program provides CEPA expertise and tools to inform wetlands management, including Walking the Landscape workshops and training and online resources.

9.5 Has your country established policies or guidelines for enhancing the role of wetlands in mitigating or adapting to climate change? {1.7.3} {1.7.5} KRA 1.7.iii

A=Yes

9.5 Additional information

> The National climate resilience and adaptation strategy recognises the role of wetlands in minimising floods, protecting natural infrastructure such as mangroves to build coastal resilience, protect waterways to safeguard water supplies:

<http://www.environment.gov.au/climate-change/adaptation/publications/national-climate-resilience-and-adaptation-strategy> (2015)

The Reef Trust and Greening Australia are partnering to deliver a major project for priority restoration and repair of wetland areas along the Great Barrier Reef coast, to help build resilience in coastal catchments and the Reef.

Australia established the International Partnership for Blue Carbon, at the 2015 United National Climate Change Conference, COP21, in Paris. The Partnership aims to build awareness, share knowledge and enhance action to protect and restore coastal blue carbon ecosystems. Partners include governments, international organisations, NGOs and research organisations.

Australia is among the first countries to establish and report on carbon accounts for coastal wetlands in the annual National Inventory Report to the UNFCCC. The wetland accounts, established by the Department of the Environment and Energy, enable policy action to reduce net emissions from wetlands to contribute towards Australia's emissions reduction targets.

The Victorian Government has undertaken projects to assist wetland managers in understanding and addressing the impacts on wetlands from climate change.

- A decision support framework has been developed to assist natural resource managers in understanding the potential impacts of climate change on coastal wetlands, identifying their adaptive capacity and in setting realistic objectives and planning for their future management. The Climate Change Vulnerability Assessment and Adaptive Capacity of Coastal Wetlands Decision Support Framework is available on the Department of Environment, Land, Water and Planning website: <http://www.depi.vic.gov.au/water/rivers-estuaries-and-wetlands/wetlands>.

- Assessment of the resilience of two Ramsar sites to the future predicted impacts of large-scale drivers of change, including climate change. The assessments will inform policy for managing change and future actions to mitigate climate change impacts at these Ramsar sites.

During the triennium, several regional climate change adaptation plans were released in South Australia that include wetlands, eg Limestone Coast (2015) Regional Climate Change Adaptation Plan.

The ACT Climate Change Adaptation Strategy 2016

https://www.environment.act.gov.au/__data/assets/pdf_file/0004/912478/ACT-Climate-Change-Adaptation-Strategy.pdf includes actions to increase the resilience of natural ecosystems and urban waterways.

The Ginini Flats wetland complex Ramsar management plan 2017 (March 2017) includes consideration of climate change impacts (Section 6.8), and a detailed climate change assessment (Attachment H). See https://www.environment.act.gov.au/__data/assets/pdf_file/0018/1060038/Ginini-Flats-Ramsar-Site-Management-Plan-ACCESS.pdf.

9.6 Has your country formulated plans or projects to sustain and enhance the role of wetlands in supporting and maintaining viable farming systems? {1.7.4} {1.7.6} KRA 1.7.v

A=Yes

9.6 Additional information

> Under the National Landcare Program, the Australian Government aims to work in partnership with

governments, industry, communities and individuals to protect and conserve Australia’s water, soil, plants, animals and ecosystems, as well as support the productive and sustainable use of these valuable resources. Under the Program, from July 2014 to June 2018, the Australian Government invested \$1 billion to continue its longstanding commitment to support natural resource management and sustainable agriculture, and to protect Australia’s biodiversity. The Government announced in September 2017 that it will invest more than \$1 billion in the next phase of the National Landcare Program to June 2023.

An objective of the National Water Initiative is to establish a nationally-compatible market, regulatory and planning based system of managing surface and groundwater resources for rural and urban use that optimises economic, social and environmental outcomes. The National Water Initiative commits Australian governments to integrated management of water for the environment and achieving a sustainable level of take from water systems.

Under the auspices of the Murray Darling Basin Plan, modernization of irrigation networks, coupled with on farm infrastructure programs, has helped the viability of the irrigation farming sector while recovering water for the environment (thereby benefitting wetlands).

Conservation Volunteers Australia undertook a major 4-year project improving wetland and riparian management on sugar cane farms in the upstream catchment of Bowling Green Bay Ramsar Site, Queensland, with funding assistance from the Australian Government.

9.7 Has research to inform wetland policies and plans been undertaken in your country on:

{1.6.1} KRA 1.6.i

Please select only one per square.

a) agriculture-wetland interactions	<input checked="" type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input type="checkbox"/> D=Planned
b) climate change	<input checked="" type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input type="checkbox"/> D=Planned
c) valuation of ecosystem services	<input checked="" type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input type="checkbox"/> D=Planned

9.7 Additional information

> Relevant projects include the following:

a) NESP Tropical Water Quality Hub’s project 3.1.2 is looking at improving water quality for the Great Barrier Reef and wetlands by better managing irrigation in the sugarcane farming system using an irrigation system that is automatically controlled on a paddock-by-paddock basis by linking feedback on climate, soils and management regimes - <http://nesptropical.edu.au/index.php/round-3-projects/project-3-1-2/>

A review of the knowledge related to wetland values and cropping in the Victorian landscape, 'Current and future risks of cropping wetlands in Victoria'. <https://www.water.vic.gov.au/waterways-and-catchments/rivers-estuaries-and-waterways/wetlands/managing-wetlands>

b) Australian academic and government scientists are actively researching the dynamics of carbon in wetland systems and their resilience to climate change. The newly established wetlands greenhouse gas inventory account utilises this research, and the Department of the Environment and Energy engages with the research community to encourage further research to underpin continued improvement in wetland carbon accounting.

A technical review of opportunities for including blue carbon in the Australian Government’s Emissions Reduction Fund confirmed that Australian coastal blue carbon ecosystems (mangroves, tidal marshes and seagrasses) have high carbon stocks, and that changing some management practices in these ecosystems has the potential to enhance carbon abatement (as well as improving water quality and ecosystem services).

'Carbon sequestration by Victorian inland wetlands' (2016) – demonstrated that inland wetlands are significant carbon sinks - <https://www.water.vic.gov.au/waterways-and-catchments/rivers-estuaries-and-waterways/wetlands/managing-wetlands>

'Climate Change Vulnerability Assessment and Adaptive Capacity of Coastal Wetlands Decision Support Framework' (2016) - Research project to assist natural resource managers to understand the potential impacts of climate change on coastal wetlands, identifying their adaptive capacity and in setting realistic objectives and planning for their future management.

<https://www.water.vic.gov.au/waterways-and-catchments/rivers-estuaries-and-waterways/wetlands/managing-wetlands>

Research undertaken by the Goyder Institute is enabling South Australia to better able to proactively plan for the impacts of climate. The study has developed regional climate change projections to enable the SA government, business and community to access consistent and high quality information at the relevant scale for their decision making needs, including the likely impacts on groundwater dependent wetlands - <http://www.goyderinstitute.org/research/foundation-research/climate-change/>

Research on climate change and valuation of ecosystem services has been undertaken as part of

implementing the Murray Darling Basin Plan. This research has informed river basin planning, which in turn has informed various aspects of wetland policy and planning and management.

An Advance Queensland Project led by Griffith University is underway in Queensland, which aims to identify the most cost-effective wetland types to focus restoration efforts on to protect the Great Barrier Reef as well as retain carbon.

c) Information on assessing wetland values and services has been made available on the WetlandInfo website at: <https://wetlandinfo.ehp.qld.gov.au/wetlands/management/wetland-values/values-services.html>

A research report, 'At what price? The economic, social and icon value of the Great Barrier Reef' (Deloitte Access Economics, 2017) - found that the Great Barrier Reef has a economic, social and icon asset value of \$56 billion, supporting 64,000 jobs and contributing \$6.4 billion to the Australian economy:

<https://www2.deloitte.com/content/dam/Deloitte/au/Documents/Economics/deloitte-au-economics-great-barrier-reef-230617.pdf>

'Valuing Nature - Protected Areas and Ecosystem Services' was produced by the Australian Committee of the IUCN in 2015: <https://www.natureaustralia.org.au/wp-content/uploads/2015/06/IUCN-Valuing-Nature-Protected-Areas-and-Ecosystem-Services-LR.compressed.pdf>

9.8 Has your country submitted a request for Wetland City Accreditation of the Ramsar Convention, Resolution XII.10 ?

B=No

9.8 Additional information

If 'Yes', please indicate How many request have been submitted

> Australia participated in the design of the program (through representation on STRP) and also on the Independent Advisory Committee which assessed the nominations.

Target 10

The traditional knowledge innovations and practices of indigenous peoples and local communities relevant for the wise use of wetlands and their customary use of wetland resources, are documented, respected, subject to national legislation and relevant international obligations and fully integrated and reflected in the implementation of the Convention with a full and effective participation of indigenous and local communities at all relevant levels.

10.1 Have the guiding principles for taking into account the cultural values of wetlands including traditional knowledge for the effective management of sites (Resolution VIII.19) been used or applied?.(Action 6.1.2/ 6.1.6)

C1=Partially

10.1 Additional information

> Indigenous people currently hold title over or manage 20 per cent of the land area of Australia, including 23% of the National Reserve System. Australia recognises and respects the knowledge Indigenous peoples have in managing Australia's land, fresh water and sea country and in conserving biodiversity and cultural heritage.

A number of Ramsar sites within Australia are jointly managed with Indigenous peoples, with management taking account of the cultural values, including traditional knowledge, of the wetlands (Q 5.7), eg Kakadu National Park is managed for both its cultural and environmental values, with management actions strongly directed towards the preservation of traditional knowledge and practices.

The Indigenous Protected Areas (IPA) and Indigenous Rangers programs support holistic land and sea management including care for wetlands on Indigenous or co-managed lands.

Two Ramsar sites (Roebuck Bay, WA and Eighty-mile Beach, WA - about 10 million hectares of wetlands) are under three IPA plans of management (Yawuru, Karajarri, Nuangumarta Warran).

The Queensland Indigenous Land and Sea Ranger program cares for land and sea country and increases the participation of Indigenous people in environmental management. Indigenous rangers are currently contracted to 17 regional communities throughout Queensland including North Stradbroke Island, part of the Moreton Bay Ramsar Site. Rangers are employed through local Indigenous host organisations, with funding provided by the Queensland Government.

Infrastructure Programs such as the Coorong Lower Lakes Murray Mouth (CLLMM) Recovery Project and the Riverine Recover Project (RRP) in South Australia have built significant capacity within Aboriginal Nations along the River Murray to represent their values and uses for water in planning processes and instruments.

While this work is ongoing, the key outcomes has been the incorporation of Aboriginal values into Wetland Management Plans. Input into the Sugar Shack Wetland Management Plan was the most advanced engagement approach where a Wetland Ecologist was out-posted to the Ngarrindjeri Regional Authority to work with the Mannum Aboriginal Community Association Incorporated and the Sugar Shack Aboriginal Corporation to write the entire Plan based on the Aboriginal objective to return the site to how their ancestors would have experienced it.

The National Environmental Science Program requires the meaningful inclusion of Indigenous people in all

aspects of research The NESP Indigenous Engagement and Participation Strategy Guidelines support best-practice approaches to partnering, collaborating and engaging with Aboriginal and Torres Strait Islander peoples. Research outcomes for Indigenous people are supported by a number of Indigenous-specific objectives in NESP's Research Priorities and appropriate measures for managing Indigenous information and data are discussed in NESP's Data and Accessibility Guidelines See:

<http://www.environment.gov.au/science/nesp/about>

Under the Echuca Declaration (2010), cultural flows were defined as "water entitlements that are legally and beneficially owned by Indigenous Nations of a sufficient and adequate quantity and quality, to improve the spiritual, cultural, environmental, social and economic conditions of those Indigenous Nations. This is our inherent right". During the triennium, progress was made on a National Cultural Flows Research Project, to provide information which will enable Indigenous water allocations to be embedded within Australia's water planning and management regimes including through two case study sites in the Murray-Darling Basin.

10.2 Have case studies, participation in projects or successful experiences on cultural aspects of wetlands been compiled. Resolution VIII.19 and Resolution IX.21? (Action 6.1.6)

A=Yes

10.2 Additional information

If yes please indicate the case studies or projects documenting information and experiences concerning culture and wetlands

> The Indigenous and cultural aspects of Australia's Ramsar wetlands have been documented in Ecological Character Descriptions for each site.

A project undertaken by the Goyder Institute Incorporating Ngarrindjeri knowledge into Coorong and Lakes water planning was undertaken, following on from research conducted in Indigenous engagement in environmental water planning, research and management: Innovations in South Australia's Murray-Darling Basin Region. The project examined the relationship between key Ngarrindjeri markers for the cultural health of the Coorong Ramsar site and the development of an effective methodology to influence environmental watering -

http://www.goyderinstitute.org/_r124/media/system/attrib/file/115/Goyder%20Report%20E.1.17%20Hemming%20and%20Rigney%202016%20final-amended.pdf

A number of articles in the 2015, 2016 and 2017 editions of Wetlands Australia have highlighted the cultural aspects of wetlands. See: Wetlands Australia 27 Ch 4, Wetlands Australia 28 Ch 2 and Wetlands Australia 29 Ch 3.

Scientists from the NESP Northern Hub gave presentations on the social and cultural dimensions of environmental flows at the 20th International Riversymposium and Environmental Flows conference (September 2017), relating to valuing and recognising how river flows contribute to ecosystem food production (commercial, recreational and Indigenous) and on Indigenous ecological knowledge of the seasonal timing of flows, resource availability and management activities.

CVA prepared 10 case studies on successful wetland community conservation projects through the Revive Our Wetlands program.

Examples of projects with significant Indigenous engagement include:

- NESP Tropical Water Quality Hub's project 2.3.3 is building Indigenous livelihood and co-management opportunities in the Northern Great Barrier Reef on ecosystem services and conservation governance for water quality.
- NESP Tropical Water Quality Hub's project 2.3.4 is working with traditional owners and local citizens to better manage Great Barrier Reef (GBR) estuarine wetlands. Traditional owner rangers and local citizens of the Port Curtis Coral Coast will be engaged in developing a Mangrove Management Plan (MMP) that provides a strategic basis for estuarine repair activity and maximizes water quality outcomes in the southern GBR. Development of this MMP will build capacity within the Gidarjil Development Corporation (GDC) and local community to undertake scientifically-rigorous, ecological monitoring and assessment.
- CVA developed the capacity of Indigenous Australians to manage the upstream catchment of the Hunter Estuary Wetlands Ramsar Site through the Newcastle Wetland Connections project. A total of 181 Indigenous participants were involved in training, employment and cultural events.
- Water for Victoria sets out policies and actions for recognising and managing for Aboriginal values. This includes building capacity to increase Aboriginal participation in Water Management and including Aboriginal values and traditional ecological knowledge in water planning (<https://www.water.vic.gov.au/aboriginal-values>) eg the Barapa Water for Country project is partnership project between the North Central Catchment Management Authority (CMA) and Barapa Barapa Traditional Owners. The project centres around Barapa Cultural Team members identifying, mapping and recording the cultural values of the Lower Gunbower Forest to improve the management of environmental water.

10.3 Have the guidelines for establishing and strengthening local communities' and indigenous people's participation in the management of wetlands been used or applied. (Resolution VII. 8) (Action 6.1.5)

A=Yes

10.3 Additional information

If the answer is “yes” please indicate the use or application of the guidelines

> See also Q10.1.

Under the Environment Protection and Biodiversity Conservation Act 1999, the Australian Government recognises the role of Indigenous people in the conservation and ecologically sustainable use of Australia’s biodiversity and promotes the use of Indigenous people’s knowledge of biodiversity with the involvement and cooperation of the owners of the knowledge.

Under the National Water Initiative, Australian, state and territory governments have agreed to recognise Indigenous needs in water access entitlements and planning frameworks.

Cultural and spiritual values are recognised under the Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000.

The Murray-Darling Basin Plan requires the development of Water Resource Plans to have regard to Indigenous values and uses and to include meaningful consultation with Indigenous people.

Funding through the Australian Government’s National Landcare Program and Green Army program has enabled Indigenous and local community citizens to guide and implement wetland conservation.

Kakadu National Park is a jointly managed national park and is managed for its cultural values as well as its environmental values. Many of the management actions are therefore strongly directed towards the participation of indigenous people in wetland management. For example, most of the field rangers involved in weed and feral animal management on Kakadu’s wetlands are Indigenous.

Strong indigenous engagement in land management is supported through Indigenous land and sea management programs (Indigenous Protected Areas and Indigenous Rangers). Guidelines for Australian Indigenous Protected Area Management Plans provide detailed guidance on Indigenous-led planning processes for land and sea management.

As an example of Indigenous participation, the South Australian Government and the Ngarrindjeri Nation established the 2009 Kungun Ngarrindjeri Yunnan Agreement (KNYA—Listen to Ngarrindjeri speaking) which prepared the way for a new partnership between Indigenous people and the State in natural resource management. At the peak of the Millennium Drought, Ngarrindjeri country in South Australia experienced record low water levels, and significant exposure of acid sulfate soil that threatened the region’s ecosystem. The established relationship allowed the Ngarrindjeri to negotiate the development of ‘emergency response’ proposals to build regulators in the Goolwa Channel to address the threat of acidification. Ngarrindjeri negotiation ensured the responses were temporary, regulator design minimised damage to Ngarrindjeri cultural heritage, and that a panel of experts independent of government and Ngarrindjeri would advise on when the structures could be removed. Ngarrindjeri leadership produced an innovative and temporary ‘emergency’ solution that met both Ngarrindjeri and State needs to mitigate environmental impacts.

Two East Asian-Australasian Flyway Partnerships have been added to the flyway site network in the Gulf of Carpentaria. Nominations were put forward by Traditional Owners with support from the Carpentaria Land Council Aboriginal Corporation, land managers and local government. The Queensland Government worked with Traditional Owners and the Queensland Wader Study Group to progress the nomination and prioritise future shorebird work in the area. Indigenous rangers are now monitoring migratory shorebirds annually.

10.4 Traditional knowledge and management practices relevant for the wise use of wetlands have been documented and their application encouraged (Action 6.1.2)

A=Yes

10.4 Additional information

> Management plans for a number of Ramsar wetlands document and apply traditional knowledge and management practices, and traditional knowledge is used in the management of wetlands across Australia:

- Kakadu National Park Ramsar site is one of the few World heritage sites listed for both its cultural and natural values. The land and the people have always been linked, and today the Aboriginal people of Kakadu work together with park staff to combine traditional skills and knowledge with contemporary park management. These people are proud to share their country and its wetlands, birdlife and rock art sites with up to 225,000 visitors each year.

- In the Kimberley region of Western Australia, the Nyul Nyul people have a strong association with fresh water sources on their traditional land. The Nyul Rangers are protecting the wetlands in ‘the right way’, managing fire, feral animals and weeds under the Working on Country program in association with the Kimberley Land Council and the Kimberley Ranger Network. One research project has used interviews with elders and traditional owners to investigate in more depth the Nyul knowledge, totems, values and practices associated with freshwater sources.

- The Gippsland Lakes Ramsar site forms the largest coastal lagoon system in Australia. A partnership between Greening Australia and the Gunaikurnai Land and Waters Aboriginal Corporation has resulted in cultural and conservation outcomes for private land located between the Avon and Latrobe Rivers. Fifteen new sites have been registered as culturally significant since 2012, including old campsites and the pathways that connected them. The emerging cultural land map conveys the importance of these wetlands to the Gunaikurnai people and how they form part of the creation story of the Dreaming.

Traditional Ecological Knowledge (TEK) is applied in combination with Western science knowledge across the Indigenous Protected Areas and the Indigenous Rangers programs. The strengthening of TEK in Indigenous land and sea management, including wetlands, is an objective in both programs.

Target 11

Wetland functions, services and benefits are widely demonstrated, documented and disseminated. {1.4.}

11.1 Has an assessment been made of the ecosystem benefits/services provided by Ramsar Sites and other wetlands? {1.4.1} KRA 1.4.ii

A=Yes

11.1 Additional information

If 'Yes' or 'Partially', please indicate, how many Ramsar Sites and their names

> Ecological Character Descriptions (ECDs) for each Ramsar site set out the benefits/services provided by the site. ECDs are available on-line at: <http://www.environment.gov.au/water/wetlands/publications>

In this triennium, the following additional assessments have been completed:

- Coorong Ramsar site - Ecosystem services from the Coorong, Lakes Alexandrina and Albert Ramsar site (2015) <https://publications.csiro.au/rpr/download?pid=csiro:EP141696&dsid=DS4>
- Ecosystem Services and associated critical processes and functions: A review relevant to the Coorong and Lakes Alexandrina and Albert Ramsar site (2014). Water's Edge Consulting

The National Inventory Systems and International Reporting Branch of the Department of the Environment and Energy has estimated the carbon stored in intertidal wetlands (mangroves and tidal marsh) within the Great Barrier Reef catchment and nationally as an indicator of their importance as a contributor to climate change mitigation.

Some preliminary work on ecosystem benefits and services has been completed as part of implementing the Murray Darling Basin Plan, in the context of better environmental water planning, and improved social and economic outcomes.

At a national level, the Aquatic Ecosystems Tool Kit has been finalised to assist with management and monitoring of wetlands (Modules 1 - 5). Module 5 of the toolkit 'Integrated Ecological Assessment of Condition (IECA)' provides a framework to assess ecological condition, including assessment of ecosystem benefits/services.

11.2 Have wetland programmes or projects that contribute to poverty alleviation objectives or food and water security plans been implemented? {1.4.2} KRA 1.4.i

A=Yes

11.2 Additional information

> Australia faces challenges to food production, including climate change, resource constraints (such as water, fertiliser, energy and land) and a slowdown in agricultural productivity growth. Australia addresses these challenges by maintaining a strong and sustainable food sector, working with industry and investing in research and innovation to help food producers meet challenges and increase production sustainably.

In the COP 12 National Report, information was provided on the National Water Initiative and Water Act, which were developed to address the joint objective of food and water security and environmental protection, particularly of aquatic and other water dependent ecosystems.

See also Q 2.1 and 12.1 relating to the Murray Darling Basin Plan.

11.3 Have socio-economic values of wetlands been included in the management planning for Ramsar Sites and other wetlands? {1.4.3}{1.4.4} KRA 1.4.iii

A=Yes

11.3 Additional information

If 'Yes' or 'Partially', please indicate, if known, how many Ramsar Sites and their names

> Socio-economic values continue to be included in management planning for Commonwealth national parks, World Heritage areas, National Heritage places and Ramsar wetlands. Initiatives in this triennium include:

- Development of management plans for Victorian Ramsar sites
- Strategic Assessment for the Perth and Peel Regions (which includes the Peel-Yalgorup System Ramsar wetland)

In Victoria, regional waterway strategies set out an eight year program of actions to protect and improve rivers, wetlands and estuaries. Priorities for actions take account of the environmental, cultural, social and economic values of waterways. For example, see the West Gippsland Waterway Strategy at:

<http://www.wqcma.vic.gov.au/our-region/waterways/waterway-strategy>

11.4 Have cultural values of wetlands been included in the management planning for Ramsar Sites and other wetlands? {1.4.3}{1.4.4} KRA 1.4.iii

A=Yes

11.4 Additional information

If 'Yes' or 'Partially', please indicate, if known, how many Ramsar Sites and their names

> All Ramsar site management plans are required to include cultural values of the wetlands (both Indigenous values and local community values).

A number of Ramsar sites are jointly managed with Indigenous people. These include:

Australian Government – Kakadu (Joint management between national parks and Traditional Owners)
NSW - Narran Lake (MoU with Traditional Owners); Paroo River Wetlands –(involvement of Traditional Owners); Myall Lakes (involvement of Traditional Owners)

Vic – In Victoria, catchment management authorities (CMA) are developing regional waterway strategies which set out the regional management program for rivers, wetlands and estuaries over an eight year timeframe.

The CMAs use the state-wide standardised risk assessment method based on waterway values which encompasses environmental, social, cultural and economic values.

SA – Coorong, Lakes Alexandrina and Albert Wetland

WA –Roebuck Bay Eighty Mile Beach (jointly managed with Traditional Owner Groups)

NT – Cobourg Peninsula (joint management with Traditional Owners)

Tas – East Cape Barren Island lagoons (managed by Aboriginal Land Council of Tasmania)

The ACT's Ginini Flats wetland complex Ramsar management plan 2017 includes consideration of aboriginal and European cultural heritage values (Section 6.9). See

https://www.environment.act.gov.au/__data/assets/pdf_file/0018/1060038/Ginini-Flats-Ramsar-Site-Management-Plan-ACCESS.pdf

Cultural values (along with natural and socio-economic values) are described in draft Commonwealth Marine Park management plans for the Coral Sea, and North-west and Temperate East Marine Park Networks (which include Ramsar sites). Cultural values are included in Ramsar Management Summaries, Ramsar Information Sheets, Ecological Character Descriptions and protected areas management plans for Queensland's Ramsar sites.

Kakadu National Park has included cultural indicators in the performance monitoring plan.

In 2016, the Commonwealth Water Holder and the Ngarrindjeri Nation sealed a partnership that gave the local Indigenous group a say in the management of environmental water in the Lower Murray region.

Target 12

Restoration is in progress in degraded wetlands, with priority to wetlands that are relevant for biodiversity conservation, disaster risk reduction, livelihoods and/or climate change mitigation and adaptation. {1.8.}

12.1 Have priority sites for wetland restoration been identified? {1.8.1} KRA 1.8.i

C=Partially

12.1 Additional information

> Priorities for wetland restoration are identified through Ramsar Management Plans, monitoring/assessments of the ecological character of Australia's Ramsar sites, and state/territory planning and programs.

The Basin Plan identifies Ramsar wetlands in the Murray-Darling Basin as environmental assets, and provides for their conservation and management through environmental watering.

The Great Barrier Reef Marine Park Authority has developed a suite of tools that support improved catchment / river basin planning and management in the Great Barrier Reef catchment. These include Blue maps and the ecological process calculator. The Blue Maps identify those areas with the greatest value for the delivery of ecological processes that benefit the Great Barrier Reef. These tools have been used to form the basis for the Australian Bureau of Statistics experimental accounting for regulating services in the Great Barrier Reef catchment. The Authority has developed a draft coastal ecosystem position statement, which includes principles for protecting, managing and promoting restoration within coastal ecosystems to enhance the capacity for the catchment to improve the health of the Reef now and in a changing climate.

An Advance Queensland Project led by Griffith University aims to identify the most cost-effective wetland types to focus restoration efforts on to protect the Great Barrier Reef. The project will measure the capacity of different types of wetlands in Great Barrier Reef catchments to retain or release pollutants as well as retain carbon. Preliminary results show that wetlands can be effective in buffering the impacts of nitrogen runoff into the coastal zone and that by avoiding deforestation and degradation of forested wetlands, will assist with mitigating emissions from land use change.

An ARC linkage project with the Fuller Lab, University of Queensland is also underway in partnership with the Queensland Government, the Queensland Wader Study Group and Burnett-Mary (Natural Resource Management) Regional Group. Amongst a range of project objectives, the study aims to identify significant habitat for various stages of migratory shorebird life cycles as well as threatening processes to assist with developing targeted management interventions. The outcomes of the project will inform future management of migratory shorebird habitat, policy and planning.

Funding has also been directed to priority wetland projects through:

- National Environmental Science Program funding – wetland research projects in the GBR catchments, Kakadu and other regions to inform wetland repair and management activities
- The Coorong, Lower Lakes and Murray Mouth Recovery project
- The Riverine Recovery Project
- Conservation Volunteers Australia has worked with land management agencies in all States to identify community wetland restoration opportunities through the Revive Our Wetlands and One Reef programs.

- Lake Eyre Basin Strategic Adaptive Management
- NSW is examining the potential for saltmarsh migration within the Hunter Estuary, to allow for preservation of the values under changing climatic conditions and sea level rise

12.2 Have wetland restoration/rehabilitation programmes, plans or projects been effectively implemented?
{1.8.2} KRA 1.8.i

C=Partially

12.2 Additional information

If 'Yes' or 'Partially', please indicate, if available the extent of wetlands restored

> Under the Murray-Darling Basin Plan, environmental watering has contributed to restoration and rehabilitation of a number of wetlands, including Ramsar sites, through connecting rivers to floodplains and wetlands to support nutrient cycling and food chains, inundating vegetation to support germination and growth of plant species, and flooding to support fish and bird breeding events.

In 2010, the Australian Government funded the development of a Long-Term Plan for the Coorong, Lower Lakes and Murray Mouth (CLLMM) Ramsar site. The Australian Government is contributing up to \$123.3 million for 23 management actions to support the Plan, including restoring lagoon, lake and lakeshore habitats through revegetation, salinity management, reintroduction of native fish, construction of fishways and restoring wetlands, resulting in a substantial improvement in the site's condition.

To help restore the River Murray System, the Australian Government has allocated up to \$89 million for the Riverine Recovery Project, using adaptive management and engineering solutions to restore more natural water flows to critical ecosystems along the River and to recover water.

The Great Barrier Reef Report Card 2016 measures progress against Reef Water Quality Protection Plan 2013 goals and targets, through assessing management practice adoption, pollutant loads, ground cover, wetland condition and inshore marine condition. Results show some progress to the water quality targets as a direct result of on ground investments through the Australian Government Reef Program and the first phase of Reef Trust.

Conservation Volunteers Australia (CVA) implemented two major 4-year wetland conservation programs with funding assistance from the Australian Government, in the upstream catchments of Hunter Estuary Wetlands and Bowling Green Bay Wetlands Ramsar Sites. Together these projects planted 80,643 endemic plants in riparian and wetland buffers.

CVA has partnered with Greening Australia, BirdLife Australia, the Department of the Environment and Energy and the community to improve wetland and coastal ecosystem health and connectivity in the Great Barrier Reef Catchments.

In Victoria, a decommissioned water storage, Lake Mokoan, has been restored guided by the Winton Wetlands Restoration and Monitoring Strategic Plan 2011 (<https://wintonwetlands.org.au/>).

The Nature Glenelg Trust has been involved in several projects to restore the hydrology of wetlands impacted by drainage in south-west Victoria, including Long Swamp, Brady Swamp and Gooseneck swamp (<http://natureglenelg.org.au/current-projects/>).

A number of projects are in place to assess the effectiveness of restoration projects -

- The NESP Tropical Water Quality Hub's project 3.3.2, will use advanced scientific hydrological and ecological techniques to generate data to evaluate repair efforts of government funded wetland system repair projects in GBR catchments.

- Kakadu National Park has an ongoing feral animal control program, targeting large, hard-hooved feral animals across the park; and are continuing the weed management program with a strong focus on wetlands, to alleviate pressure on Park wetlands and enable natural restoration.

Victoria published a resource summarising the ecological understanding of vegetation recovery in wetlands in 2017. A decision support tool to allow natural resource managers to assess the feasibility of wetland vegetation recovery is also planned for release late in 2017. (see links at:

<https://www.water.vic.gov.au/waterways-and-catchments/rivers-estuaries-and-waterways/wetlands/managing-wetlands>)

Target 13

Enhanced sustainability of key sectors such as water, energy, mining, agriculture, tourism, urban development, infrastructure, industry, forestry, aquaculture and fisheries when they affect wetlands, contributing to biodiversity conservation and human livelihoods

13.1 Have actions been taken to enhance sustainability of key sectors such as water, energy, mining, agriculture, tourism, urban development, infrastructure, industry, forestry, aquaculture and fisheries when they affect wetlands?

A=Yes

13.1. Additional information

If 'Yes', please indicate the actions taken

> With regard to tourism, Kakadu National Park has undertaken community and tourist education programs

focused on wetland threats, such as *Salvinia molesta*, *Mimosa pigra*, and feral animals.

A Sustainable Tourism Overview 2011-2016 guided Parks Australia in managing tourism in Commonwealth reserves, including the Kakadu and Christmas Island Ramsar sites.

In terms of agriculture, the National Landcare Program continues to provide funding to support sustainable land management practices across Australia. The program supports farmers and community groups to protect and restore Ramsar sites and other wetlands.

NESP Tropical Water Quality Hub's project 3.1.2 is looking at improving water quality for the Great Barrier Reef and wetlands by better managing irrigation in the sugarcane farming system.

Nationally, Australia's intertidal wetlands (mangroves, tidal marsh and seagrass meadows) have significant organic carbon stores. Australia contributes its expertise in wetland carbon to the 'International Partnership For Blue Carbon', which aims to "raise awareness, share knowledge and accelerate practical action to protect and restore coastal blue carbon ecosystems for climate action."

Australia is also one of the first countries to include wetlands in its National Greenhouse Accounts, enabling greenhouse gas mitigation initiatives in wetlands to contribute towards Australia's emissions reduction targets.

A key objective of the National Water Initiative is to facilitate efficient and sustainable use of Australia's water resources, by ensuring water is allocated and used to achieve socially and economically beneficial outcomes in a manner that is environmentally sustainable.

The National Water Quality Management Strategy (NWQMS) is a nationally agreed approach to managing water quality. The purpose of the NWQMS is to protect the nation's water resources by maintaining and improving water quality, while supporting dependent aquatic and terrestrial ecosystems, agricultural and urban communities, and industry. The Water Quality Guidelines facilitate the productive and sustainable use of Australia's water resources while still maintaining the biological communities and ecological processes that the resource supports.

The Murray Darling Basin Plan is designed to achieve sustainability of the water sector in the Murray-Darling Basin. Its establishment was driven, by risks to the reliability and sustainability of the Basin's irrigated agriculture and declining health of the Murray-Darling Basin's wetlands. The Basin Plan, now in its fifth year of implementation, has enhanced the sustainability of the water sector.

With regard to mining, the Australian Government's Leading Practice Sustainable Development Program is a collaborative effort between government and Australia's mining industry that promotes sustainable development and industry self-regulation through proactive adoption of leading practice principles and processes. The Leading Practice handbooks (covering environmental and water management) can be accessed at <https://industry.gov.au/resource/Programs/LPSD/Pages/LPSDhandbooks.aspx#>.

In the Alligator Rivers Region, the Supervising Scientist Branch undertakes ongoing environmental monitoring around the Ranger uranium mine to ensure the environment - including downstream wetlands - remains protected from the effects of uranium mining. That monitoring program continues to show that, to date, the offsite environment remains protected.

The Biodiversity Assessment work undertaken by the Office of Water Science under the Coal Seam Gas Intergovernmental Agreement will also contribute to the sustainability of the mining.

13.2 Are Strategic Environmental Assessment practices applied when reviewing policies, programmes and plans that may impact upon wetlands? {1.3.3} {1.3.4} KRA 1.3.ii

A=Yes

13.2 Additional information

> Under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act), the Australian Government Minister for the Environment can approve actions which relate to an endorsed policy, plan or programme. These 'strategic assessments' happen early in the planning process and examine the potential impacts of actions which might stem from one or more policy, plan or programme. These may include, but are not limited to: regional-scale development plans and policies; large-scale industrial development and associated infrastructure; fire, vegetation/resource or pest management policies, plans or programs; water extraction/use policies; infrastructure plans and policies; and industry sector policies.

Entering into a strategic assessment offers the potential to deal with cumulative impacts on Matters of National Environmental Significance (MNES), which include wetlands of international importance, and to look for both conservation and planning outcomes on a much larger scale than can be achieved through project-by-project assessments. For the policy, program or plan to be endorsed under the EPBC Act, regard is given to the extent to which the Program is consistent with the objectives of the EPBC Act. It must also demonstrate that the commitments to protect and manage MNES will be met.

13.3 Are Environmental Impact Assessments made for any development projects (such as new buildings, new roads, extractive industry) from key sectors such as water, energy, mining, agriculture, tourism, urban development, infrastructure, industry, forestry, aquaculture and fisheries that may affect wetlands?

{1.3.4} {1.3.5} KRA 1.3.iii

A=Yes

13.3 Additional information

> Where a proposed action has, will have or is likely to have a significant impact on matters of national environmental significance (MNES), such as the ecological character of a declared Ramsar wetland, it must be referred under Australia's national legislation, the EPBC Act.

An environment assessment is then required under the EPBC Act where it has been determined that there is likely to be a significant impact on MNES.

In the current triennium, referred actions at Ramsar sites included mining, urban developments, transport, irrigation, sewage and storm water management, wind farms and aquaculture/ agricultural development.

During the reporting period (2015-2017), Ramsar advice was provided on over 60 referrals under the Act.

In the ACT, Schedule 4 of the Planning and Development Act 2007 includes a trigger for environmental impact assessment of Ramsar sites. See <http://www.legislation.act.gov.au/a/2007-24/current/pdf/2007-24.pdf>.

Goal 4. Enhancing implementation

Target 15

Ramsar Regional Initiatives with the active involvement and support of the Parties in each region are reinforced and developed into effective tools to assist in the full implementation of the Convention. {3.2.}

15.1 Have you (AA) been involved in the development and implementation of a Regional Initiative under the framework of the Convention? {3.2.1} KRA 3.2.i

A=Yes

15.1 Additional information

If 'Yes' or 'Planned', please indicate the regional initiative(s) and the collaborating countries of each initiative
> Hunter Wetlands Centre, in collaboration with Sydney Olympic Park Authority and Contracting Parties, is involved in the development of a RRI proposal for Oceania. Initial discussions have been held with relevant parties including Oceania Contracting Parties, universities and NGOs.

Australia was a founding member of the Partnership for the Conservation of Migratory Waterbirds and the Sustainable Use of their Habitats in the East Asian–Australasian Flyway (East Asian— Australasian Flyway Partnership) when it was launched on 6 November 2006. A Ramsar regional initiative, the Partnership is an informal and voluntary collaboration of effort focusing on protecting migratory waterbirds, their habitat and the livelihoods of people dependent on them.

The EAAF is one of nine major migratory waterbird flyways around the globe. It extends from within the Arctic Circle in Russia and Alaska, southwards through East and South-east Asia, to Australia and New Zealand in the south, encompassing 22 countries. Migratory waterbirds share this flyway with 45 per cent of the world's human population. The EAAF is home to over 50 million migratory waterbirds—including shorebirds, Anatidae (ducks, geese and swans), seabirds and cranes—from 207 species, including 33 globally threatened and 13 near threatened species.

Flyway partners include national governments, intergovernmental agencies, international non-government organisations and the international business sector. A cornerstone of the Partnership is the establishment of a network of internationally important sites for migratory waterbirds throughout the EAAF. The Partnership operates via working groups and task forces, one working group and a number of task forces focus on migratory shorebirds. More information about the Partnership is available at: www.eaaflyway.net

Two sites have been added to the Flyway network in the Gulf of Carpentaria. Nominations were put forward by Traditional Owners with support from the Carpentaria Land Council Aboriginal Corporation, land managers and local government. The Queensland Government worked with Traditional Owners and the Queensland Wader Study Group to progress the nomination and priorities future shorebird work in the area. Indigenous rangers are now monitoring migratory shorebirds annually.

15.2 Has your country supported or participated in the development of other regional (i.e., covering more than one country) wetland training and research centres? {3.2.2}

A=Yes

15.2 Additional information

If 'Yes', please indicate the name(s) of the centre(s)

> Australia recently supported a workshop on blue carbon through the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF). 'Blue carbon' refers to the carbon sequestered, stored and released in the biomass and sediments of coastal wetlands - mangrove, tidal marsh and seagrass.

The Workshop was aimed at building technical capacity to implement and monitor projects on coastal blue carbon ecosystems, to identify pathways for implementing policies to protect and restore these ecosystems, and to facilitate information sharing and knowledge exchange between Coral Triangle Countries: Philippines, Indonesia, Malaysia, Solomon Islands, PNG and Timor Leste. Follow-up activities from this workshop may include the development of training materials and training delivery at the national and regional levels.

Target 16

Wetlands conservation and wise use are mainstreamed through communication, capacity development,

education, participation and awareness {4.1}

16.1 Has an action plan (or plans) for wetland CEPA been established? {4.1.1} KRA 4.1.i

Even if no CEPA plans have been developed, if broad CEPA objectives for CEPA actions have been established, please indicate this in the Additional information section below

Please select only one per square.

a) At the national level	<input checked="" type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input type="checkbox"/> C=In Progress <input type="checkbox"/> D=Planned
b) Sub national level	<input checked="" type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input type="checkbox"/> C=In Progress <input type="checkbox"/> D=Planned
c) Catchment/basin level	<input checked="" type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input type="checkbox"/> C=In Progress <input type="checkbox"/> D=Planned
d) Local/site level	<input checked="" type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input type="checkbox"/> C=In Progress <input type="checkbox"/> D=Planned

16.1 Additional information

If 'Yes' or 'In progress' to one or more of the four questions above, for each please describe the mechanism, who is responsible and identify if it has involved CEPA NFPs

> a) Australia is developing a Ramsar CEPA Action Plan to implement the Ramsar CEPA Program 2016-2024, setting out actions by the Australian Government, state and territory governments and NGOs.

b) c) A Communication, Education and Awareness Management Program is outlined in the marine park management plans for the Coral Sea, and North-west and Temperate East Marine Park Networks (that include Ramsar sites). This program will support communication and public education about the natural, cultural and socio-economic values marine parks, including Ramsar wetlands.

States and territories have plans for wetland CEPA activities. For example:

- The Victorian Waterway Management Strategy includes policy and actions for community participation in the management of Victoria's waterways.
- The Wetlands in the Great Barrier Reef Catchments Management Strategy 2016-21 outlines a range of education, communication and capacity building goals, objectives and actions related to in the management of wetlands in the catchments of the Great Barrier Reef.

d) The Peel-Harvey Catchment Council, in Western Australia, has developed a Wetlands and People Plan to promote communication, education, participation and awareness of the Peel-Yalgorup Wetland System. This CEPA Plan is being developed in accordance with a strategy under the Peel-Yalgorup Ramsar Site System Management Plan, Peel Harvey Catchment Council (2009). It is available at: http://www.peel-harvey.org.au/wp-content/uploads/WPP_Final.pdf

CVA prepared and implemented a CEPA program for the upstream catchments of Hunter Estuary Wetlands and Bowling Green Bay Wetlands Ramsar Sites, with funding assistance from the Australian Government. Individual Ramsar site ECDs and management plans set out CEPA messages and priorities related to the site. Many sites have a program of CEPA activities, including newsletters, training activities, signs and brochures. These include for the Hunter Estuary Ramsar site, Sydney Olympic Park wetlands, Warren Wetlands, etc

16.2a How many centres (visitor centres, interpretation centres, education centres) have been established? {4.1.2} KRA 4.1.ii

a) at Ramsar Sites

E=Exact Number (centres)

> 9

16.2b How many centres (visitor centres, interpretation centres, education centres) have been established? {4.1.2} KRA 4.1.ii

b) at other wetlands

E=Exact Number (centres)

> 32

16.2 Additional information

If centres are part of national or international networks, please describe the networks

> a) Wetland education centres at Ramsar sites (9):

Hunter Wetlands Environmental Education Centre (Hunter Estuary),
 Botany Bay Environmental Education Centre (Towra Point),
 Bowali Visitors Centre and other facilities (Kakadu National Park),
 Banrock Station Wetland and Wine Centre (Banrock Station Wetland Complex),
 Edithvale-Seaford Wetland Education Centre,
 Broome Bird Observatory (Roebuck Bay),
 Two Lakes Hubs (The Coorong, Lake Alexandrina & Lake Albert)
 Boondall Wetlands Environment Centre (Moreton Bay).

There are also a variety of information and interpretation facilities at other sites (including at Fivebough and Tuckerbil Swamps, NSW, Myall Lakes, NSW and Cobourg Peninsula, NT).

b) There are 18 education centres and 14 marine discovery centres at other wetlands/sites.

Examples include: a visitor centre featuring wetlands at Tamar Island, Tasmania; three centres in Western Australia (the Cockburn Wetland Education Centre, Western Australian Gould League's centre at Herdsman Lake and the Piney Lakes Environmental Education Centre) and a visitor centre at Window on the Wetlands and visitor facilities at Fogg Dam, both on the Adelaide River floodplain south of Darwin in the Northern Territory. In Victoria, the Mokoan Visitor Hub and Café (at Winton Wetlands) was opened in May 2015; a wetland education centre at Sydney Olympic Park, NSW.

16.3 Does the Contracting Party {4.1.3} KRA 4.1.iii

Please select only one per square.

a) promote stakeholder participation in decision-making on wetland planning and management	<input checked="" type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input type="checkbox"/> C=Partially <input type="checkbox"/> D=Planned
b) specifically involve local stakeholders in the selection of new Ramsar Sites and in Ramsar Site management?	<input checked="" type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input type="checkbox"/> C=Partially <input type="checkbox"/> D=Planned

16.3 Additional information

If 'Yes' or 'Partially', please provide information about the ways in which stakeholders are involved

> There are a range of mechanisms to enable stakeholders to contribute to decision-making processes.

For Australian Government reserves covering Ramsar wetlands, the preparation of National Park Management Plans involves a formal public comment period (as outlined under the EPBC Act), as well as consultation with key stakeholders and local communities. State and Territory park planning processes also involve public consultation.

The Murray Darling Basin Authority promotes stakeholder participation through the requirements of the Basin Plan and undertakes regular consultation with: Indigenous groups and individuals; regional water advisory groups; scientific and academic community; irrigators, landholders and local community representatives; local government, State/Territory governments; and conservation organisations. Stakeholder advisory committees provide advice on implementing the 'sustainable diversion limit', the 'environmental water plan' and the 'water quality and salinity management plan'. This advice on sustainability, water quantity and water quality assists decision making on wetland planning and management.

Local information and experience is critical to being able to effectively manage and deliver Commonwealth environmental water. The Commonwealth Environmental Water Office (CEWO) engages with delivery partners, environmental water holders, members of the scientific community, regional advisory groups, and landowners, who work with us to plan, manage and monitor the use of environmental water in the Basin. The CEWO employs six Local Engagement Officers that work alongside State and local land and water management officers, providing outreach to local communities throughout the Basin.

Multi-stakeholder Network Advisory Committees will be established for the Coral Sea, and North-west and Temperate East Marine Park Networks (that include Ramsar sites) to provide advice to the Director of National Parks on the management of marine parks in these networks and review of management arrangements.

Where possible and practicable, Kakadu National Park works closely with traditional owners to manage wetlands in Kakadu, including through a new partnership with a local indigenous association and another government agency to increase the productivity and effectiveness of salvinia management work in Kakadu's wetlands, by building and operating a breeding facility for the biological control agent the salvinia weevil. Christmas Island and Pulu Keeling Island National Parks have undertaken stakeholder consultation when preparing their plans of management.

In NSW, stakeholders can have input to the management of Ramsar sites in the reserve system through advisory committees and management plans.

The ACT's Nature Conservation Act 2014 requires the Conservator of Flora and Fauna to undertake public consultation on the Plan before it is finalised, and to consult with the Commonwealth and any land custodian. The Queensland Government has assisted in the establishment of management advisory groups for the Great Sandy Strait and Shoalwater and Corio Bays Area Ramsar sites. These groups include both government and non-government stakeholders involved in management activities in and around Ramsar sites. The Queensland Government continues to work closely with the Queensland Wader Study Group to ensure effective monitoring of shorebirds in the Great Sandy Strait and Moreton Bay Ramsar sites and is working with the Group, researchers and NRM groups to manage shorebird habitat and develop tools to guide management activities.

16.4 Do you have an operational cross-sectoral National Ramsar/Wetlands Committee? {4.1.6} KRA 4.3.v
 A=Yes

16.4 Additional information

If 'Yes', indicate a) its membership; b) number of meetings since COP12; and c) what responsibilities the Committee has

> Australia's National Ramsar Committee, the Wetlands and Aquatic Ecosystems Sub Committee (WAESC), comprises representatives from the Australian Ramsar Administrative Authority and state and territory governments. WAESC was established to progress wetlands/aquatic ecosystem related aspects of both the national water reform agenda and the national partnership approach to conservation and management of biodiversity at the landscape and ecosystem scale.

Specific organisations and individuals, including representatives of non-government and scientific/technical organisations, are invited to attend particular meetings. The Sub Committee generally meets twice a year. The Australian Government liaises with Australian Wetland Network, a network of 39 NGOs and CSOs involved in wetland management and wise use.

16.5 Do you have an operational cross-sectoral body equivalent to a National Ramsar/Wetlands Committee? {4.1.6} KRA 4.3.v
 B=No

16.6 Are other communication mechanisms (apart from a national committee) in place to share Ramsar implementation guidelines and other information between the Administrative Authority and a), b) or c) below? {4.1.7} KRA 4.1.vi:
Please select only one per square.

a) Ramsar Site managers	<input checked="" type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input type="checkbox"/> C=Partially <input type="checkbox"/> D=Planned
b) other MEA national focal points	<input checked="" type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input type="checkbox"/> C=Partially <input type="checkbox"/> D=Planned
c) other ministries, departments and agencies	<input checked="" type="checkbox"/> A=Yes <input type="checkbox"/> B=No <input type="checkbox"/> C=Partially <input type="checkbox"/> D=Planned

16.6 Additional information

If 'Yes' or 'Partially', please describe what mechanisms are in place

> a) There are communications between the Australian Government Department of the Environment and site managers relating to nomination and management of Ramsar sites.

The Australian Government has made significant investment in developing tools and information to support management of Ramsar sites, for example, the Australian National Guidelines for Ramsar Wetlands which draw on Ramsar guidance (see: <http://www.environment.gov.au/water/wetlands/ramsar/australian-national-guidelines>)

Regular meetings are held by the Ramsar Administrative Authority with Australian Government Ramsar site managers to share information and guidance.

b) There are both formal and informal mechanisms in place to facilitate communication between MEA national focal points (NFPs). The NFPs for biodiversity-related Conventions are located within the Department of the Environment and Energy, and attend regular 6 monthly meetings to share information.

A forum was hosted by the Ramsar Administrative Authority in October 2016 for Australian Government policy and program staff to share information about their work relating to wetlands.

c) The Administrative Authority works collaboratively with relevant Australian, state and territory government

departments and agencies, including those managing Ramsar sites. The nature and frequency of this interaction depends on the issue. Communication increases in the lead up to and following meetings of the Conference of the Contracting Parties, with the Administrative Authority seeking input to Australia's National Report, consulting on draft resolutions and circulating information on new guidance agreed by COP.

16.7 Have Ramsar-branded World Wetlands Day activities (whether on 2 February or at another time of year), either government and NGO-led or both, been carried out in the country since COP12? {4.1.8}

A=Yes

16.7 Additional information

> Each year in Australia, World Wetlands Day (WWD) activities are carried out by Australian, state, territory and local governments, as well as a variety of community organisations.

Australian Government WWD activities include an annual Wetlands Australia magazine, videos, fact sheets, brochures and displays. Details of these activities and materials are at:

<http://www.environment.gov.au/water/wetlands/world-wetlands-day>. Australia promotes the Secretariat's WWD resources and the WWD youth photo competition.

Every year Kakadu National Parks hosts an event at Park headquarters for World Wetlands Day, which is usually attended by hundreds of people.

The Hunter Wetlands Centre Australia has collaborated with Conservation Volunteers and NSW Government agencies to host WWD activities during the triennium.

During the triennium, the Sydney Olympic Park Authority has organised Walk-n-Talk, Bird Observations, a symposium and special school classes to increase awareness of wetlands by Park visitors, patrons and stakeholders.

The Australian Wetland Network encouraged and promoted World Wetlands day activities nationally, and hosted the NSW Wetland Forum on WWD 2017.

Conservation Volunteers Australia's Revive Our Wetlands program hosted 19 World Wetlands Day activities throughout the country, engaging 740 participants from 63 stakeholder organisations.

16.8 Have campaigns, programmes, and projects (other than for World Wetlands Day-related activities) been carried out since COP12 to raise awareness of the importance of wetlands to people and wildlife and the ecosystem benefits/services provided by wetlands? {4.1.9}

A=Yes

16.8 Additional information

If these and other CEPA activities have been undertaken by other organizations, please indicate this

> Celebrations of wetland wildlife and values have included:

- World Migratory Bird Day
- BirdLife Australia activities
- Australian Geographic - May 2017 - "Flying for their lives" (migratory birds) and Radio National podcasts
- Coorong, Lakes Alexandrina and Albert wetland Nov 2015 - celebrations of 30th anniversary of listing as a Ramsar wetland.

The Great Barrier Reef Marine Park Authority's coastal ecosystem program has worked to raise awareness in the Great Barrier Reef catchment about ecosystem benefits provided by wetlands for all beneficiaries. The Authority's Reef Guardian schools program in particular encourages and supports students to learn about wetlands so they can restore, protect and maintain wetlands in the Great Barrier Reef catchment. The Authority's Reef Guardian Council program identifies activities carried out by local government to recognise the importance of managing and supporting wetlands for all beneficiaries.

The Systems Repair grants component of the Australian Government's Reef Program enables landholders to manage impacts on riparian and coastal systems including wetlands. Awareness raising is a key component of these projects.

The Reef Trust has entered into joint funding arrangements with non-government organisations (led by Greening Australia) to protect wetlands. Part of this action includes community engagement and awareness raising.

Hunter Wetlands Centre is one of many wetland-focused visitor centres in Australia that deliver on-going awareness-raising programmes.

At Sydney Olympic Park, in excess of 25,000 junior and senior school students participated in formal education; most of it in estuarine wetlands. The contents were delivered in-situ, through mangrove classrooms, boardwalks, elevated platforms and other education nodes. Twenty-one Walk-n-Talk were organised for the business community in the precinct to raise their level of awareness of wetlands, especially catchment management in urban settings.

Conservation Volunteers Australia's Revive Our Wetlands program, launched on WWD 2017, promotes community awareness and participation in wetland conservation.

The Australian Wetland Network supported by the NSW Environmental Trust builds the capacity of NGOs and CSOs to manage wetlands and participate in planning.

The South Australian DEWNR undertook "Wild Wetlands Day" on 22 April in Murray Bridge to increase

community understanding of wetlands, their biota and wise use.

Target 17

Financial and other resources for effectively implementing the fourth Ramsar Strategic Plan 2016 – 2024 from all sources are made available. {4.2.}

17.1a Have Ramsar contributions been paid in full for 2015, 2016 and 2017? {4.2.1} KRA 4.2.i

A=Yes

17.2 Has any additional financial support been provided through voluntary contributions to non-core funded Convention activities? {4.2.2} KRA 4.2.i

A=Yes

17.2 Additional information

If 'Yes' please state the amounts, and for which activities

> Australia provided funding for an Oceania Regional Meeting in March 2017 and funding for the Oceania STRP representative to travel to STRP meetings.

Australia will provide funding to assist Oceania Contracting Parties to attend an Oceania Regional meeting in New Zealand in March 2018 in preparation for COP13.

17.3 [For Contracting Parties with a development assistance agency only ('donor countries')]: Has the agency provided funding to support wetland conservation and management in other countries? {3.3.1}

KRA 3.3.i

A=Yes

17.3 Additional information

If 'Yes', please indicate the countries supported since COP12

> Australia's development assistance provides finance in partner countries that support local livelihoods, forestry, fisheries, building resilience to disasters and adapting to the impacts of climate change.

In the 2015-16 financial year the Australian Government allocated over AUD \$550 million of Official Development Assistance targeting environmental investments. This may include assistance to wetland and coastal ecosystems.

17.4 [For Contracting Parties with a development assistance agency only ('donor countries')]: Have environmental safeguards and assessments been included in development proposals proposed by the agency? {3.3.2} KRA 3.3.ii

A=Yes

17.4 Additional information

> Environmental considerations are 'mainstreamed' across several sectoral policies and programs in the Australian aid program. The Department of Foreign Affairs and Trade (DFAT) is actively mitigating adverse environmental impacts through the application of mandatory environmental and social safeguard policies. DFAT's 'Environment Protection Policy for the Aid Program' provides a framework for the management of environmental impacts and helps protect the environment in the delivery of Australia's aid program.

17.5 [For Contracting Parties that have received development assistance only ('recipient countries')]: Has funding support been received from development assistance agencies specifically for in-country wetland conservation and management? {3.3.3}

Z=Not Applicable

17.6 Has any financial support been provided by your country to the implementation of the Strategic Plan?

A=Yes

17.6 Additional information

If "Yes" please state the amounts, and for which activities

> The Australian Government has provided funding for a number of programs that assist in implementation within Australia of the Goals of the Strategic Plan (including addressing threats, management of Ramsar sites, wetland conservation and wise use, enhancing implementation) through support for wetland research, planning, management and monitoring. Key programs include:

- National Landcare Program - supports local environmental and sustainable agriculture projects. The Australian Government recently announced an investment of over \$1 billion for phase 2 of the program (July 2017 to June 2023). Under the Regional Land Partnerships, Ramsar wetlands will be a priority focus.
- Environmental watering - provision of environmental flows that protect, enhance and nourish the Murray Darling Basin's rivers, wetlands, and floodplains together with their plants and animals.

- National Environmental Science Program - environment and climate research projects that deliver collaborative, practical and applied research to inform decision making and on-ground action.
- Reef Trust - provides innovative, targeted investment focused on improving water quality, restoring coastal ecosystem health and enhancing species protection in the Great Barrier Reef region.

Target 18

International cooperation is strengthened at all levels {3.1}

18.1 Are the national focal points of other MEAs invited to participate in the National Ramsar/Wetland Committee? {3.1.1} {3.1.2} KRAs 3.1.i & 3.1.iv

A=Yes

18.1 Additional information

> The national focal point for the Convention on Migratory Species and the East-Asian Australasian Flyway Partnership is invited to provide input to and attend meetings of the Wetlands and Aquatic Ecosystem Subcommittee (WAESC), Australia's National Ramsar Committee.

While NFPs for other MEAs do not attend the National Ramsar Committee meetings, they are briefed on wetland-related activities at their 6 monthly NFP meetings, and the Committee is regularly briefed on relevant MEA activities.

18.2 Are mechanisms in place at the national level for collaboration between the Ramsar Administrative Authority and the focal points of UN and other global and regional bodies and agencies (e.g. UNEP, UNDP, WHO, FAO, UNECE, ITTO)? {3.1.2} {3.1.3} KRA 3.1.iv

A=Yes

18.2 Additional information

> The Department of the Environment and Energy is the Australian Government lead for over 20 multilateral environmental agreements (e.g. CITES, UNCCD, CBD, CMS, UNEP). Given the breadth of its responsibilities, the Department has robust structures to ensure the sharing of information between Focal Points and across the agency. For example:

- Focal Points are required to complete and share reports on the outcomes of international meetings.
- Regular intra-departmental meetings are convened to identify synergies for cooperation.
- The Department's Executive Board is regularly briefed on the outcomes of all international engagement.

The Department also collaborates with Focal Points from other government agencies (e.g. the Department of Foreign Affairs and Trade, the Department of Agriculture and Water Resources), the scientific community (CSIRO) and international non-governmental organisations (e.g. IUCN).

In relation to the FAO, OECD, APEC and other relevant agriculture-related international fora, no formal mechanisms exist. The Administrative Authority works collaboratively with these focal points on an as needs basis.

18.3 Has your country received assistance from one or more UN and other global and regional bodies and agencies (e.g. UNEP, UNDP, WHO, FAO, UNECE, ITTO) or the Convention's IOPs in its implementation of the Convention? {4.4.1} KRA 4.4.ii.

The IOPs are: BirdLife International, the International Water Management Institute (IWMI), IUCN (International Union for Conservation of Nature), Wetlands International, WWF and Wildfowl & Wetland Trust (WWT).

A=Yes

18.3 Additional information

If 'Yes' please name the agency (es) or IOP (s) and the type of assistance received

> Australian IOPs are invited to contribute to the National Report and provide advice to the Australian Government on draft resolutions to be considered by COP.

Australia uses data from Birdlife International and BirdLife Australia in its management of Ramsar sites.

18.4 Have networks, including twinning arrangements, been established, nationally or internationally, for knowledge sharing and training for wetlands that share common features? {3.4.1}

A=Yes

18.4 Additional information

If 'Yes' or 'Partially', please indicate the networks and wetlands involved

> The Great Barrier Reef Wetlands Network, which includes regional NRM bodies, conservation, research, environment and government groups located in the Great Barrier Reef catchments, assists to promote and achieve effective wetlands management. The Network includes Burnett-Mary, Fitzroy and North Queensland Dry Tropics Regional NRM groups which coordinate and undertake on-ground management at three of the five Queensland Ramsar sites.

Examples of Twinning arrangements within Australia include:

- Vic Waterway Management Twinning Program
- Winning and Twinning – Lake Eyre Basin and Okavango River Basin
- Jerrabomberra Wetlands – Japan
- Brisbane City Council and the City of Narashino, Japan have had an agreement in relation to the protection of migratory shorebirds
- HWCA and Kushiro Wetlands, Hokkaido, Japan – renewal in 2015.

Australia launched the International Partnership for Blue Carbon at the UNFCCC COP21 in December 2015.

The Partnership aims to protect and restore coastal blue carbon ecosystems – mangrove, tidal marsh and seagrass – for climate change mitigation and adaptation, and other ecosystem services.

Coastal wetlands share the common feature of having significant carbon capture and storage potential, which is why they are referred to as ‘coastal blue carbon ecosystems’. These ecosystems provide many other important ecosystem services and co-benefits for adaptation and sustainable livelihoods. When degraded or lost, coastal wetlands can become significant emission sources. The Partnership is not a funding body, but instead aims to better connect the efforts of governments, research organisations and non-government organisations. The Partnership is pursuing activities that raise awareness, facilitate knowledge exchange, and accelerate practical action on coastal blue carbon ecosystems.

In November 2017, the Minister for the Environment and Energy announced that Australia will provide \$6 million to support efforts to protect and manage coastal blue carbon ecosystems in the Pacific, in partnership with Fiji and other Pacific countries, regional institutions and private sector organisations.

18.5 Has information about your country’s wetlands and/or Ramsar Sites and their status been made public (e.g., through publications or a website)? {3.4.2} KRA 3.4.iv

A=Yes

18.5 Additional information

> Information on Australia’s wetlands, including Ramsar sites, is made publicly available through a range of mechanisms, including the websites of Australian and state/territory agencies:

<http://www.environment.gov.au/wetlands>

<https://wetlandinfo.ehp.qld.gov.au/wetlands/>

<https://www.water.vic.gov.au/waterways-and-catchments/rivers-estuaries-and-waterways/wetlands>

NGOs and other organisations also promote wetlands eg the Hunter Wetland Centre’s website (www.wetlands.org.au) raises awareness about wetlands values and the Ramsar Convention. Its social media feeds also raise awareness about wetlands.

Information is also available through a variety of publications, including Wetlands Australia, an on-line magazine with articles written by and for the wetlands community.

A publication showcasing Australia’s migratory waterbirds and their habitats, including a number of Ramsar sites, was published in 2017 - <http://www.environment.gov.au/biodiversity/publications/celebrating-australias-migratory-waterbirds-and-their-habitats>

Newsletters and magazines enable sharing of information between wetland managers, researchers and policy makers eg WetlandLink (CVA), RipRap magazine (Australian River Restoration Centre)

The values of Ramsar and other wetland sites are publicised on World Wetlands Day through publications, websites, print, electronic and social media.

18.6 Has information about your country’s wetlands and/or Ramsar Sites been transmitted to the Ramsar Secretariat for dissemination? {3.4.3} KRA 3.4.ii

A=Yes

18.6 Additional Information

> Australia’s Administrative Authority passes site documentation and information on site status to the Ramsar Secretariat on a regular basis. New and updated RISs are provided to the Secretariat and are being progressively uploaded to the RSIS.

Australia has provided case studies for use by the Ramsar Secretariat in its promotion of wetland values.

18.7 Have all transboundary wetland systems been identified? {3.5.1} KRA 3.5.i

Z=Not Applicable

18.8 Is effective cooperative management in place for shared wetland systems (for example, in shared river basins and coastal zones)? {3.5.2} KRA 3.5.ii

Y=Not Relevant

18.8 Additional information

If ‘Yes’ or ‘Partially’, please indicate for which wetland systems such management is in place

> Australia does not share any wetland systems with other countries.

Within Australia, a number of management arrangements are in place that support catchment or basin-scale

management. These include in the Murray-Darling Basin, the Lake Eyre Basin and the Queensland Great Barrier Reef coastal catchments.

18.9 Does your country participate in regional networks or initiatives for wetland-dependent migratory species? {3.5.3} KRA 3.5.iii

A=Yes

18.9 Additional information

> Australia participates in the East Asian – Australasian Flyway Partnership. See 15.1.

Australia has three bilateral migratory bird agreements with Japan (JAMBA), China (CAMBA) and the Republic of Korea (ROKAMBA). These agreements provide a basis for cooperation on activities for the conservation of migratory birds that move between each country. Species listed on the annexes to these agreements are a matter of National Environmental Significance under the EPBC Act as listed migratory species.

Meetings occur between all four countries every two years. By rotation, Australia hosted the 18th JAMBA, 12th CAMBA and 5th ROKAMBA consultative meetings in October 2016.

At each meeting, Australia delivers a national report which outlines activities that have contributed to the domestic implementation of the migratory bird agreements. Bilateral migratory bird consultative meeting National Report available here: <http://www.environment.gov.au/biodiversity/publications/australian-national-report-consultative-meetings-oct-2016>

NESP Threatened Species Recovery Hub Subproject 5.1.1 'Strategic Planning for the Eastern Curlew' will produce guidelines, applicable to any north Australian coastal habitat, on how to accommodate curlew and other shorebird habitat in development proposals that would detail the habitats they require for feeding and roosting, the spatial relationship between the two and the options for offsets, habitat protection and habitat augmentation.

Target 19

Capacity building for implementation of the Convention and the 4th Ramsar Strategic Plan 2016 – 2024 is enhanced.

19.1 Has an assessment of national and local training needs for the implementation of the Convention been made? {4.1.4} KRAs 4.1.iv & 4.1.viii

C=Partially

19.1 Additional information

> There is a strong network of wetland education centres, NGOs and universities that provide training in wetland ecology and management. These organisations are identifying and responding to national and local training needs.

The Wetland Education (WET) Training program at Sydney Olympic Park has recently undertaken a survey on training requirements for those involved in managing wetlands. These results will inform the provision of future training by the WET program.

19.2 Are wetland conservation and wise-use issues included in formal education programmes?

C=Partially

19.2 Additional information

If you answer yes to the above please provide information on which mechanisms and materials

> Learnings and activities relating to wetlands are accommodated in the Australian National Curriculum in the areas of Science and Geography. While wetlands are not addressed explicitly, the Australian Science Curriculum provides numerous opportunities for students to learn about their ecology and their importance. In the Primary curriculum, wetlands would provide a suitable context for topics that deal with the interdependencies of plants and animals and their habitats. They could also be addressed within the context of natural and human-caused changes to the environment, such as in the Earth and space sciences and in the Science as a human endeavour strand. In Secondary, wetlands could provide an ideal focus for the study of ecosystems and their key role in supporting a sustainable way living. Numerous further opportunities can be found in Senior Secondary, Biology Unit 1: Biodiversity and the interconnectedness of life, as well as in all units of Earth and Environmental Science.

The NSW K-12 Curriculum used in all schools includes topics at all levels that accommodate wetlands and wise-use issues.

Examples of curriculum resources include Great Barrier Reef activities and teaching units at:

<http://www.gbrmpa.gov.au/learn-about-the-reef/resources-by-grade>

Online wetland education modules are available at:

<https://wetlandinfo.ehp.qld.gov.au/wetlands/resources/training/>

19.3a How many opportunities for wetland site manager training have been provided since COP12? {4.1.5} KRA 4.1.iv

a) at Ramsar Sites

X=Unknown

19.3b How many opportunities for wetland site manager training have been provided since COP12?

{4.1.5} KRA 4.1.iv

b) at other wetlands

G=More than (Opportunities)

19.3 Additional information

including whether the Ramsar Wise Use Handbooks were used in the training

> More than 20.

Comprehensive information about the number of training opportunities for site manager and is not available, but a number of training courses, conferences and seminars were offered during the last triennium. These included:

- Annual Western Australian Wetland Management Conference
- Annual Australian Society for Limnology Conference
- Annual Australian Mangrove and Saltmarsh Network Conference
- Annual RiverSymposium
- Courses offered at Sydney Olympic Park – see below
- Training courses offered by International Centre of Excellence in Water Resources Management
- Courses offered at a variety of universities on water, wetlands, river and floodplain ecology etc
- Winton Wetlands Restoration Science Forum (Aug 2017)
- Education and training courses offered at Wetland Education Centres
- Community training in plant propagation, frog and bird monitoring etc offered by Greening Australia, BirdLife Australia.
- Waterway Management Twinning Program (Glenelg-Hopkins Catchment Management Authority, Vic, founded 2015) which supports mentor/mentees and further extend their skills and understanding in waterway management through workshops that cover both personal and professional development topics.

<http://www.twinningiswinning.com.au/about/>

At Sydney Olympic Park, six wetland training courses were delivered to professional wetland practitioners and planners. These courses were tailored to suit their needs and contained hands-on, practical components, thus sharing solutions to the day-to-day problems that wetland managers face. Courses included Wetland Legislation (June 2017), Managing Constructed Wetlands (Nov 2017). Some 110 professionals attended these courses. Also, a (free) eBook on “Workbook for Managing Urban Wetlands in Australia” was published and in excess of 8,000 viewers have downloaded various chapters out of the eBook.

19.4 Have you (AA) used your previous Ramsar National Reports in monitoring implementation of the Convention? {4.3.1} KRA 4.3.ii

A=Yes

19.4 Additional information

If ‘Yes’, please indicate how the Reports have been used for monitoring

> Previous National Reports are providing context and input to the development of Australia’s Ramsar Implementation Plan and CEPA Plan.

Section 4. Optional annex to allow any Contracting Party that has developed national targets to provide information on those

Goal 1

Target 1: Wetland benefits

Wetland benefits are featured in national / local policy strategies and plans relating to key sectors such as water, energy, mining, agriculture, tourism, urban development, infrastructure, industry, forestry, aquaculture, fisheries at the national and local level. Contributes to Aichi Target 2

Target 1: Wetland benefits - Priority

B=Medium

Target 1: Wetland benefits - Resourcing

B=Adequate

Target 1: Wetland benefits - National Targets

> By 2018, consider whether Australia's National Biodiversity Strategy adequately integrates conservation and management outcomes for wetland ecosystems

Target 1: Wetland benefits - Planned activity

- > • Complete review of Australia's Biodiversity Conservation strategy
- Consider how to progress implementing the review findings.

Target 1: Wetland benefits - Outcomes achieved by 2018

Outcomes achieved by 2018 and how they contribute to achievement of the Aichi Targets and Sustainable Development Goals

Note: this field has to be completed when the full report is submitted in January 2018

> A review of Australia's Biodiversity Conservation Strategy was completed. It is available at:

<http://www.environment.gov.au/biodiversity/publications/australias-biodiversity-conservation-strategy-five-year-review>

On 25 November 2016, environment Ministers endorsed the report on the review and agreed to revise the Strategy based on the review's findings. Work is progressing.

Contributes to Aichi Targets 2 (integration) and 17 (biodiversity strategy).

Target 2: Water Use

Water use respects wetland ecosystem needs for them to fulfil their functions and provide services at the appropriate scale inter alia at the basin level or along a coastal zone. Contributes to Aichi Targets 7 and 8 and Sustainable Development Goal 6.3.1

Target 2: Water Use - Priority

A=High

Target 2: Water Use - Resourcing

B=Adequate

Target 2: Water Use - National Targets

> Research and projects are delivered that help monitor, maintain and restore the functions of waterways and wetlands at the Basin and catchment scale.

Target 2: Water Use - Planned activity

> • Support projects, through the National Environmental Science Program, Reef Trust, National Landcare Program, and other programs in Great Barrier Reef catchments, the Murray-Darling Basin, in catchments and along coasts that improve wetland and broader ecosystem function.
• Undertake short-term monitoring, and Long-Term Intervention Monitoring at 7 sites in the Murray-Darling Basin on impacts of environmental water on water quality, vegetation, fish, birds and frogs.

Target 2: Water Use - Outcomes achieved by 2018

Outcomes achieved by 2018 and how they contribute to achievement of the Aichi Targets and Sustainable Development Goals

Note: this field has to be completed when the full report is submitted in January 2018

> Significant funding was provided to research and on-ground projects, which has improved wetland knowledge and management at the Basin and catchment scale. Wetlands projects were funded through the National Environmental Science Program (NESP \$145 million, 2015 to 2021), the Reef Trust, National Landcare Program, and programs in Great Barrier Reef catchments and the Murray-Darling Basin. In the Murray-Darling Basin, targeted use of water for the environment is helping to improve connectivity, vegetation condition and diversity and habitat for frogs, fish and birds.

Contributes to Aichi Targets 7 (sustainable agriculture, aquaculture and forestry) and 8 (reduced pollution, including nutrients).

Target 3: Public and private sectors

Public and private sectors have increased their efforts to apply guidelines and good practices for the wise use of water and wetlands. {1.10}. Contributes to Aichi Targets 3, 4, 7 and 8.

Target 3: Public and private sectors - Priority

B=Medium

Target 3: Public and private sectors - Resourcing

C=Limiting

Target 3: Public and private sectors - National Targets

> By 2018, projects are completed which identify and promote good practice across a variety of private sector landuses

Target 3: Public and private sectors - Planned activity

> • Fund research and development projects through National Environmental Science Program, CSIRO, National Climate Change Adaptation Research Facility, Reef Fund and other programs which identify good practice in wetland management for multiple benefits.

- Promote good practice through industry associations and corporate partnerships.
- Develop and promote case studies of good practice.

Target 3: Public and private sectors - Outcomes achieved by 2018

Outcomes achieved by 2018 and how they contribute to achievement of the Aichi Targets and Sustainable Development Goals

Note: this field has to be completed when the full report is submitted in January 2018

> Projects were undertaken to promote wise use of wetlands through identifying and promoting good practice in cane farming, horticulture, cropping and grazing, and through partnerships with the private sector.

Research and case studies were undertaken of good practice in management of feral animals, weeds and fire, on species recovery and restoration.

Contributes to Aichi Targets 4 (sustainable production) and 7 (sustainable agriculture).

Target 4: Invasive alien species

Invasive alien species and pathways of introduction and expansion are identified and prioritized, priority invasive alien species are controlled or eradicated, and management responses are prepared and implemented to prevent their introduction and establishment. Contributes to Aichi Target 9.

Target 4: Invasive alien species - Priority

B=Medium

Target 4: Invasive alien species - Resourcing

A=Good

Target 4: Invasive alien species - National Targets

> By 2017, the revised Australian Pest Animal Strategy and Australian Weeds Strategy are finalised. These strategies will guide collaborative effort to manage the impacts of invasive species across Australia, including its wetlands and waterways, to protect its unique biodiversity.

By 2018, the National Carp Control Plan is finalised, to inform the potential release of a biological control agent to reduce carp numbers in Australia's waterways

Continue to implement Threat Abatement Plans that are relevant to wetlands

Target 4: Invasive alien species - Planned activity

- Complete consultations on and finalise the Australian Pest Animal Strategy and Australian Weeds Strategy.
- Undertake further research, consultations, planning and risk assessment in preparation for the potential release of carp-specific herpes virus at end 2018 (at the earliest).

Target 4: Invasive alien species - Outcomes achieved by 2018

Outcomes achieved by 2018 and how they contribute to achievement of the Aichi Targets and Sustainable Development Goals

Note: this field has to be completed when the full report is submitted in January 2018

> The Australian Pest Animal Strategy and the Australian Weeds Strategy provide a national framework for addressing invasive species issues, while maintaining the profitability of Australia's primary industries.

The Australian Government has committed over \$15 million to assess the viability of release of a biological control agent for European carp. Research and consultations are underway. A National Carp Control Plan is due to be finalised by end 2018.

Contributes to Aichi Target 9 (control of invasive alien species).

Goal 2

Target 5: Ecological character of Ramsar Sites

The ecological character of Ramsar Sites is maintained or restored through effective, planning and integrated management {2.1.}. Contributes to Aichi Target 6,11, 12.

Target 5: Ecological character of Ramsar Sites - Priority

A=High

Target 5: Ecological character of Ramsar Sites - Resourcing

B=Adequate

Target 5: Ecological character of Ramsar Sites - National Targets

> Environmental assessments continue to be applied to actions that may affect Ramsar sites, and other matters of National Environmental Significance (NES)

Improved understanding of the ecological character of Ramsar wetlands and their management:

- By January 2018, Australia to increase the number of its Ramsar sites with Ecological Character Descriptions (ECDs) from 85% to 90% (currently 55, increase to 59)
- By January 2018, 11 Ramsar Information Sheets (RISs) to be updated.
- By January 2018, 6 Ramsar Management Plans and Ramsar Management Summaries to be updated.

Target 5: Ecological character of Ramsar Sites - Planned activity

> • Prepare advice, as part of the assessment of actions referred under the Environment Protection and Biodiversity Conservation Act, on the potential impacts on the ecological character of Ramsar sites and other matters of NES (eg threatened species, migratory birds, the Great Barrier Reef and World Heritage sites), and contribute advice to strategic assessments.

- Work with site managers and State/Territory agencies to finalise ECDs for remaining Ramsar sites, and to update RISs and Management Plans

Target 5: Ecological character of Ramsar Sites - Outcomes achieved by 2018

Outcomes achieved by 2018 and how they contribute to achievement of the Aichi Targets and Sustainable Development Goals

Note: this field has to be completed when the full report is submitted in January 2018

> During the triennium, wetlands advice was provided on over 60 referrals and assessments under the Environment Protection and Biodiversity Conservation Act, on actions that may impact on Ramsar sites. During the triennium, one additional ECD was prepared (Shoalwater and Corio Bays - 2017) with 4 ECD addenda published (Corner Inlet, Edithvale-Seaford, Kerang and Western Port).

Draft RIS updates were prepared for 8 sites (Shoalwater and Corio Bays, Paroo River Wetlands, Lake Pinaroo, Corner Inlet, Edithvale-Seaford, Kerang, Ord River Floodplain and Ginini Flats Wetland Complex) and one of these is available on the public RSIS (Ord River Floodplain).

Updated Management Plans were prepared for 11 sites (Gippsland Lakes, Coongie Lakes, Peel-Yalgorup, Vasse-Wonnrup, Eighty Mile Beach, Lake Warden, Lake Gore, Roebuck Bay, Ginini Flats Wetland Complex, Western Port and Kakadu National Park). Management plans for 3 offshore Ramsar sites are being reviewed as part of the establishment of new Commonwealth Marine Reserves. New or updated management Plans for a number of sites are in preparation (including Port Phillip Bay, Kerang Wetlands, East Cape Barren Island Lagoons).

Contributes to Aichi Targets 11 (protected areas) and 12 (conservation of threatened species).

Target 7: Sites at risk

Sites that are at risk of change of ecological character have threats addressed {2.6.}. Contributes to Aichi Targets 5, 7, 11, 12.

Target 7: Sites at risk - Priority

B=Medium

Target 7: Sites at risk - Resourcing

B=Adequate

Target 7: Sites at risk - National Targets

> By end 2017, additional national guidance is prepared on assessing and managing sites that are at risk of change to ecological character.

Target 7: Sites at risk - Planned activity

> • Prepare further national guidance on process for advising potential change in character, undertaking assessments, developing Response Strategies and resolving Article 3.2 listings

Target 7: Sites at risk - Outcomes achieved by 2018

Outcomes achieved by 2018 and how they contribute to achievement of the Aichi Targets and Sustainable Development Goals

Note: this field has to be completed when the full report is submitted in January 2018

> National guidance on processes for identifying, assessing and notifying change in ecological character has been developed.

Contributes to Aichi Target 11 (protected areas).

Goal 3

Target 8: National wetland inventories

National wetland inventories have been either initiated, completed or updated and disseminated and used for promoting the conservation and effective management of all wetlands {1.1.1} KRA 1.1.i. Contributes to Aichi Targets 12, 14, 18, 19.

Target 8: National wetland inventories - Priority

B=Medium

Target 8: National wetland inventories - Resourcing

B=Adequate

Target 8: National wetland inventories - National Targets

> By 2018, our understanding is improved of wetland vegetation, including the extent of seagrass, saltmarshes and mangroves in Australia

By end 2017, the fifth and final module of the Aquatic Ecosystems Toolkit is completed.

Target 8: National wetland inventories - Planned activity

- Undertake wetland vegetation mapping, including mapping of seagrass, saltmarshes and mangroves
- Finalise the Toolkit's Integrated Ecosystem Condition Assessment (IECA) Framework and develop the implementation manual.

Target 8: National wetland inventories - Outcomes achieved by 2018

Outcomes achieved by 2018 and how they contribute to achievement of the Aichi Targets and Sustainable Development Goals

Note: this field has to be completed when the full report is submitted in January 2018

> Work has proceeded on projects to map seagrass, mangroves and salt marshes, including using scientific and community monitoring and satellite data.

The Aquatic Ecosystems Toolkit module on an Integrated Ecosystem Condition Assessment (IECA) is being finalised.

Contributes to Aichi Targets 14 (restoration of essential ecosystem services) and 19 (biodiversity science base and technologies).

Target 9: Wise Use

The wise use of wetlands is strengthened through integrated resource management at the appropriate scale, inter alia, within a river basin or along a coastal zone {1.3.}. Contributes to Aichi Targets 4, 6, 7.

Target 9: Wise Use - Priority

A=High

Target 9: Wise Use - Resourcing

C=Limiting

Target 9: Wise Use - National Targets

> By 2017, Australia's Ramsar Implementation Plan to be in place.

Integrated catchment management is considered as a key element of natural resource management and biodiversity policy.

Target 9: Wise Use - Planned activity

> • Consult within Australian Government, with States/Territories and NGOs on priorities for Ramsar Implementation Plan, and finalise and publish the Plan.

Target 9: Wise Use - Outcomes achieved by 2018

Outcomes achieved by 2018 and how they contribute to achievement of the Aichi Targets and Sustainable Development Goals

Note: this field has to be completed when the full report is submitted in January 2018

> Consultation has been undertaken, and a draft Ramsar Implementation Plan has been developed.

Integrated catchment management has been a fundamental element of natural resource management policy and programs in Australia. A number of management arrangements are in place that support catchment or basin-scale management. These include in the Murray-Darling Basin, the Lake Eyre Basin and the Queensland Great Barrier Reef coastal catchments.

The National Landcare Program has delivered significant investment at the regional/catchment scale.

Contributes to Aichi Target 4 (sustainable production).

Target 10: Traditional Knowledge

The traditional knowledge innovations and practices of indigenous peoples and local communities relevant for the wise use of wetlands and their customary use of wetland resources, are documented, respected, subject to national legislation and relevant international obligations and fully integrated and reflected in the implementation of the Convention with a full and effective participation of indigenous and local communities at all relevant levels. Contributes to Aichi Target 18.

Target 10: Traditional Knowledge - Priority

B=Medium

Target 10: Traditional Knowledge - Resourcing

C=Limiting

Target 10: Traditional Knowledge - National Targets

> By 2018, guidelines and case studies for Indigenous involvement in wetland management and monitoring are documented, compiled and promoted

Target 10: Traditional Knowledge - Planned activity

- Identify relevant guidelines and case studies (eg through National Environmental Science Program, National Landcare Program, Murray-Darling Basin Authority)
- Undertake joint projects with Indigenous researchers and wetland managers, including promoting Indigenous weather knowledge.
- Promote good practice and case studies in wetland management

Target 10: Traditional Knowledge - Outcomes achieved by 2018

Outcomes achieved by 2018 and how they contribute to achievement of the Aichi Targets and Sustainable Development Goals

Note: this field has to be completed when the full report is submitted in January 2018

> A variety of wetland projects have been undertaken with significant engagement of Indigenous peoples, through the National Environmental Science Program, National Landcare Program, Indigenous Protected Areas and the Indigenous Ranger programs. Management Planning for Ramsar sites has integrated Indigenous knowledge and management. A series of Indigenous Seasonal Calendars were produced. Contributes to Aichi Target 18 (traditional knowledge).

Target 11: Wetland functions

Wetland functions, services and benefits are widely demonstrated, documented and disseminated. {1.4}.
Contributes to Aichi Targets 1, 2, 13, 14.

Target 11: Wetland functions - Priority

A=High

Target 11: Wetland functions - Resourcing

C=Limiting

Target 11: Wetland functions - National Targets

> By 2018, studies of the economic value of wetland ecosystem services are undertaken.

Target 11: Wetland functions - Planned activity

> • Undertake relevant research projects through the National Environmental Science Program, National Climate Change Adaptation Research Facility and other programs, including studies of disaster risk reduction services of coastal wetlands

Target 11: Wetland functions - Outcomes achieved by 2018

Outcomes achieved by 2018 and how they contribute to achievement of the Aichi Targets and Sustainable Development Goals

Note: this field has to be completed when the full report is submitted in January 2018

> Studies of wetland ecosystem services and their values were undertaken, including carbon storage in intertidal wetlands, ecosystem services and benefits in the Murray-Darling Basin (including the Coorong), ecosystem services of protected areas and the values of the Great Barrier Reef.

Contributes to Aichi Targets 1 (awareness), 2 (integration) and 14 (restoration of essential ecosystem services).

Target 12: Restoration

Restoration is in progress in degraded wetlands, with priority to wetlands that are relevant for biodiversity conservation, disaster risk reduction, livelihoods and/or climate change mitigation and adaptation. {1.8.}.
Contributes to Aichi Targets 14 and 15.

Target 12: Restoration - Priority

A=High

Target 12: Restoration - Resourcing

B=Adequate

Target 12: Restoration - National Targets

> By 2018, projects are undertaken which help restore and maintain the ecological character of priority Ramsar wetlands, including wetlands in the catchments of the Great Barrier Reef and The Coorong and Lakes Alexandrina and Albert (at the mouth of the Murray River).

Target 12: Restoration - Planned activity

> • Identify priorities for wetland restoration, and implement projects under the National Landcare Program, Green Army, Reef Trust etc
• Supply environmental water and undertake on-ground works and measures that contribute to the maintenance of the Coorong and Lakes Alexandrina Ramsar site's ecological character.

Target 12: Restoration - Outcomes achieved by 2018

Outcomes achieved by 2018 and how they contribute to achievement of the Aichi Targets and Sustainable Development Goals

Note: this field has to be completed when the full report is submitted in January 2018

> Priority wetland restoration projects were undertaken in the Great Barrier Reef catchments, Kakadu, in the catchments of Ramsar sites and across Australia, funded by a variety of programs.

Environmental water was supplied and works undertaken in the Murray-Darling Basin, including provision of \$123.3 million for projects to restore the Coorong, Lower Lakes and Murray Mouth and \$89 million for the Riverine Recovery Project on the Murray River.

Contributes to Aichi Targets 14 (restoration of essential ecosystem services) and 15 (conservation and restoration).

Target 13: Enhanced sustainability

Enhanced sustainability of key sectors such as water, energy, mining, agriculture, tourism, urban development, infrastructure, industry, forestry, aquaculture and fisheries when they affect wetlands, contributing to biodiversity conservation and human livelihoods. Contributes to Aichi Targets 6 and 7.

Target 13: Enhanced sustainability - Priority

A=High

Target 13: Enhanced sustainability - Resourcing

B=Adequate

Target 13: Enhanced sustainability - National Targets

> The Environment Protection and Biodiversity Conservation Act and the Water Act continue to be implemented, to integrate consideration of wise use of Ramsar and other wetlands into planning for sustainable development.

Target 13: Enhanced sustainability - Outcomes achieved by 2018

Outcomes achieved by 2018 and how they contribute to achievement of the Aichi Targets and Sustainable Development Goals

Note: this field has to be completed when the full report is submitted in January 2018

> Actions with potential to significantly impact on Ramsar wetlands, threatened and migratory species were assessed under the Environment Protection and Biodiversity Conservation Act, and relevant conditions applied. The Murray-Darling Basin Plan, developed under the Water Act, continued to be implemented to improve sustainability of the water sector in the Basin.

Contributes to Aichi Target 7 (sustainable agriculture, aquaculture and forestry).

Goal 4

Target 15: Regional Initiatives

Ramsar Regional Initiatives with the active involvement and support of the Parties in each region are reinforced and developed into effective tools to assist in the full implementation of the Convention. {3.2.}

Target 15: Regional Initiatives - Priority

B=Medium

Target 15: Regional Initiatives - Resourcing

C=Limiting

Target 15: Regional Initiatives - National Targets

> By 2018, development of a Ramsar Regional Initiative for Oceania is progressed.

Target 15: Regional Initiatives - Planned activity

> • Australia to advise on and support Hunter Wetlands Centre Australia to investigate the development of a Ramsar Regional Centre in cooperation with Contracting Parties in the Oceania Region

Target 15: Regional Initiatives - Outcomes achieved by 2018

Outcomes achieved by 2018 and how they contribute to achievement of the Aichi Targets and Sustainable Development Goals

Note: this field has to be completed when the full report is submitted in January 2018

> Approaches were made to Oceania parties and work is proceeding on development of a Ramsar Regional Initiative.

Target 16: Wetlands conservation and wise use

Wetlands conservation and wise use are mainstreamed through communication, capacity development, education, participation and awareness {4.1}. Contributes to Aichi Target 1 and 18.

Target 16: Wetlands conservation and wise use - Priority

A=High

Target 16: Wetlands conservation and wise use - Resourcing

B=Adequate

Target 16: Wetlands conservation and wise use - National Targets

> By 2017, a Ramsar CEPA National Action Plan for Australia is developed.

Target 16: Wetlands conservation and wise use - Planned activity

- > • Engage wetland stakeholders to identify priorities for action
- Finalise CEPA National Action Plan 2016-2018
- Implement actions, including annual celebration of World Wetlands Day

Target 16: Wetlands conservation and wise use - Outcomes achieved by 2018

Outcomes achieved by 2018 and how they contribute to achievement of the Aichi Targets and Sustainable Development Goals

Note: this field has to be completed when the full report is submitted in January 2018

> A Ramsar CEPA National Action Plan has been drafted, in consultation with stakeholders, and will be finalised in 2018.

Contributes to Aichi Targets 1 (awareness) and 18 (traditional knowledge).

Target 17: Financial and other resources

Financial and other resources for effectively implementing the fourth Ramsar Strategic Plan 2016 – 2024 from all sources are made available. {4.2.}. Contributes to Aichi Target 20.

Target 17: Financial and other resources - Priority

A=High

Target 17: Financial and other resources - Resourcing

B=Adequate

Target 17: Financial and other resources - National Targets

> Australia pays its Ramsar contribution, and participates in relevant meetings.

Australia supports ongoing engagement with the Ramsar Executive Group (through the Vice-Chair) and supports Oceania and STRP representatives.

Funding is provided through national programs to implement the Ramsar Strategic Plan in Australia.

Target 17: Financial and other resources - Planned activity

> • Send delegates (including Vice-Chair) to Standing Committee meeting in 2017, and other Committee meetings

- Support Oceania Regional Meeting
- Support attendance of Oceania technical expert at STRP meeting
- Support research, restoration and management of Ramsar and other wetlands, through the National Environmental Research Program, the National Climate Change Adaptation Research Facility, Reef Trust, National Landcare Program, Green Army, 20 Million Trees, Murray-Darling Basin investments and other programs.

Target 17: Financial and other resources - Outcomes achieved by 2018

Outcomes achieved by 2018 and how they contribute to achievement of the Aichi Targets and Sustainable Development Goals

Note: this field has to be completed when the full report is submitted in January 2018

> Australia paid its Ramsar contribution and sent delegates to Standing Committee meetings (SC51 in November 2015, SC52 in June 2016 and SC53 in May/June 2017). The Head of Australia's Ramsar Administrative Authority fulfilled his responsibilities as Vice-Chair of the Standing Committee and Chair of the CEPA Oversight Panel. Australia participated in the assessment of nominations for Wetland City Accreditation. Funding support was provided for Oceania delegates to attend the Oceania Regional Meeting (ORM) in Fiji in March 2017, and funding will be provided for an ORM in New Zealand in March 2018 in preparation for COP13. Funding and support was provided for research, restoration and management of Ramsar and other Wetlands through a variety of Australian Government, state/territory and NGO programs and projects. Contributes to Aichi Target 20 (resource mobilisation).

Target 18: International cooperation

International cooperation is strengthened at all levels {3.1}

Target 18: International cooperation - Priority

B=Medium

Target 18: International cooperation - Resourcing

B=Adequate

Target 18: International cooperation - National Targets

> Regular meetings occur between Australian National Focal Points of Ramsar and other biodiversity-related MEAs

Australia continues to participate in bilateral and multilateral arrangements relating to migratory birds.

Target 18: International cooperation - Planned activity

> • Participate in quarterly meetings of NFPs

- Continue to participate in bilateral migratory bird agreements with Japan, China and the Republic of Korea
- Continue to participate in the East-Asian Australasian Flyway Partnership, including nomination of a new Flyway site

Target 18: International cooperation - Outcomes achieved by 2018

Outcomes achieved by 2018 and how they contribute to achievement of the Aichi Targets and Sustainable Development Goals

Note: this field has to be completed when the full report is submitted in January 2018

> Six monthly meetings of the NFPs for biodiversity-related Conventions were held.

Australia continued to participate in the Convention on Migratory Species, the three bilateral migratory bird agreements with Japan (JAMBA), China (CAMBA) and the Republic of Korea (ROKAMBA), and hosted the 18th JAMBA, 12th CAMBA and 5th ROKAMBA consultative meetings in October 2016.

Australia continued to participate in the East Asian-Australasian Flyway Partnership (with 24 Flyway sites) and nominated a new Australian Flyway site, Nijinda Durlga (Tarrant) in October 2016.

The NFP for the Convention on Migratory Species and East-Asian Australasian Flyway Partnership attended the six-monthly meetings of Australia's Ramsar Committee.

Target 19: Capacity Building

Capacity building for implementation of the Convention and the 4th Ramsar Strategic Plan 2016 – 2024 is enhanced. Contributes to Aichi Targets 1 and 17.

Target 19: Capacity Building - Priority

B=Medium

Target 19: Capacity Building - Resourcing

B=Adequate

Target 19: Capacity Building - National Targets

> Each year, training courses are delivered on wetland management, restoration and monitoring. The Aquatic Ecosystems Toolkit and other support tools are finalised and promoted.

Target 19: Capacity Building - Planned activity

> • Universities, research organisations and wetland centres deliver formal and informal training courses and workshops to students, agency staff, wetland managers, community volunteers, and others.

Target 19: Capacity Building - Outcomes achieved by 2018

Outcomes achieved by 2018 and how they contribute to achievement of the Aichi Targets and Sustainable Development Goals

Note: this field has to be completed when the full report is submitted in January 2018

> A network of wetland education centres, NGOs and universities continued to provide training in wetland ecology and management. These included wetland conferences and seminars, formal training courses and community training in wetland restoration, management and monitoring.

The 5th module of the Aquatic Ecosystems Toolkit was finalised and promoted, and other national and state/territory-based decision-support tools were developed.

Contributes to Aichi Targets 1 (awareness) and 19 (biodiversity science and technologies).

Section 5: Optional annex to allow any Contracting Party that so wishes to provide additional information regarding any of all of its designated Wetlands of International Importance (Ramsar Sites)

Guidance for filling in this section

1. Contracting Parties can provide additional information specific to any or all of their designated Ramsar Sites, given that the situation and status of individual Ramsar Sites can differ greatly within the territory of a Contracting Party.
2. The only indicator questions included in this section are those from Section 3 of the COP13 NRF which directly concern Ramsar Sites.
3. In some cases, to make them meaningful in the context of reporting on each Ramsar Site separately, some of these indicator questions and/or their answer options have been adjusted from their formulation in Section 3 of the COP13 NRF.
4. Please include information on only one site in each row. In the appropriate columns please add the name and official site number (from the Ramsar Sites Information Service).
5. For each 'indicator question', please select one answer from the legend.
6. A final column of this Annex is provided as a 'free text' box for the inclusion of any additional information concerning the Ramsar Site.

A final column of this Annex is provided as a 'free text' box for the inclusion of any additional information concerning the Ramsar Site.

Australia

Apsley Marshes (255)

5.7 Has a cross-sectoral site management committee been established for the site?

A=Yes

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Ashmore Reef Commonwealth Marine Reserve (1220)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder

involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Banrock Station Wetland Complex (1221)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Barmah Forest (262)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Becher Point Wetlands (1048)

5.7 Has a cross-sectoral site management committee been established for the site?

A=Yes

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?
 A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?
 A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?
 A=Yes

Blue Lake (800)

5.7 Has a cross-sectoral site management committee been established for the site?
 A=Yes

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?
 A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?
 A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?
 A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?
 A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?
 A=Yes

Bool and Hacks Lagoons (322)

5.7 Has a cross-sectoral site management committee been established for the site?
 D=Planned

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?
 A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?
 A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?
 A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?
 A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?
 A=Yes

Bowling Green Bay (632)

5.7 Has a cross-sectoral site management committee been established for the site?
 B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?
 A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Cape Barren Island, east coast lagoons (256)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

Z=No Management Plan

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

Z=No Management Plan

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Cobourg Peninsula (1)

5.7 Has a cross-sectoral site management committee been established for the site?

A=Yes

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Coongie Lakes (376)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Coral Sea Reserves (1222)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Corner Inlet (261)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Currawinya Lakes (791)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Edithvale-Seaford Wetlands (1096)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Eighty-mile Beach (480)

5.7 Has a cross-sectoral site management committee been established for the site?

A=Yes

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Elizabeth and Middleton Reefs Marine National Nature Reserve (1223)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Fivebough and Tuckerbil Swamps (1224)

5.7 Has a cross-sectoral site management committee been established for the site?

A=Yes

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Flood Plain Lower Ringarooma River (257)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Forrestdale and Thomsons Lakes (481)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Ginini Flats Subalpine Bog Complex (793)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Gippsland Lakes (269)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Great Sandy Strait (992)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Gunbower Forest (263)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Gwydir Wetlands: Gingham and Lower Gwydir Watercourses (993)

5.7 Has a cross-sectoral site management committee been established for the site?

A=Yes

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar

Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Hattah-Kulkyne Lakes (264)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Hosnie's Spring (512)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Hunter Estuary Wetlands (287)

5.7 Has a cross-sectoral site management committee been established for the site?

A=Yes

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Interlaken Lakeside Reserve (259)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Jocks Lagoon (258)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Kakadu National Park (204)

5.7 Has a cross-sectoral site management committee been established for the site?

A=Yes

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Kerang Wetlands (265)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Lake Albacutya (270)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Lake Gore (1049)

5.7 Has a cross-sectoral site management committee been established for the site?

A=Yes

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Lake Pinaroo (799)

5.7 Has a cross-sectoral site management committee been established for the site?

A=Yes

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Lake Warden system (485)

5.7 Has a cross-sectoral site management committee been established for the site?

A=Yes

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Lakes Argyle and Kununurra (478)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

Z=No Management Plan

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

Z=No Management Plan

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Lavinia Nature Reserve (253)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Little Llangothlin Nature Reserve (798)

5.7 Has a cross-sectoral site management committee been established for the site?

A=Yes

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Little Waterhouse Lake (260)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Logan Lagoon (252)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Macquarie Marshes (337)

5.7 Has a cross-sectoral site management committee been established for the site?

A=Yes

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar

Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Moreton Bay (631)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Moulting Lagoon (251)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Muir-Byenup System (1050)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Myall Lakes (994)

5.7 Has a cross-sectoral site management committee been established for the site?

A=Yes

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Narran Lake Nature Reserve (995)

5.7 Has a cross-sectoral site management committee been established for the site?

A=Yes

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

NSW Central Murray State Forests (1291)

5.7 Has a cross-sectoral site management committee been established for the site?

A=Yes

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Ord River floodplain (477)

5.7 Has a cross-sectoral site management committee been established for the site?

A=Yes

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Paroo River Wetlands (1716)

5.7 Has a cross-sectoral site management committee been established for the site?

A=Yes

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Peel-Yalgorup system (482)

5.7 Has a cross-sectoral site management committee been established for the site?

A=Yes

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Piccaninnie Ponds Karst Wetlands (2136)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Pittwater-Orielton Lagoon (254)

5.7 Has a cross-sectoral site management committee been established for the site?

A=Yes

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Port Phillip Bay & Bellarine Peninsula (266)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Pulu Keeling National Park (797)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Riverland (377)

5.7 Has a cross-sectoral site management committee been established for the site?

A=Yes

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Roebuck Bay (479)

5.7 Has a cross-sectoral site management committee been established for the site?

A=Yes

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Shoalwater and Corio Bays (792)

5.7 Has a cross-sectoral site management committee been established for the site?

A=Yes

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

The Coorong, Lake Alexandrina & Lake Albert (321)

5.7 Has a cross-sectoral site management committee been established for the site?

A=Yes

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar

Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

The Dales, Christmas Island (1225)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Toolibin Lake (483)

5.7 Has a cross-sectoral site management committee been established for the site?

A=Yes

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Towra Point (286)

5.7 Has a cross-sectoral site management committee been established for the site?

A=Yes

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Vasse-Wonnerup System (484)

5.7 Has a cross-sectoral site management committee been established for the site?

A=Yes

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Western District Lakes (268)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes

Western Port (267)

5.7 Has a cross-sectoral site management committee been established for the site?

B=No

11.1 Has an assessment been made of the ecosystem benefits/services provided by the Ramsar Site?

A=Yes

11.3 Have socio-economic values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

11.4 Have cultural values of wetlands been included in the management planning for the Ramsar Site?

A=Yes

16.3a Is stakeholder participation in decision-making promoted, especially with local stakeholder involvement in the management of the Ramsar Site?

A=Yes

16.6a Have communication mechanisms been established to share information between the Ramsar Administrative Authority and the Ramsar Site manager(s)?

A=Yes