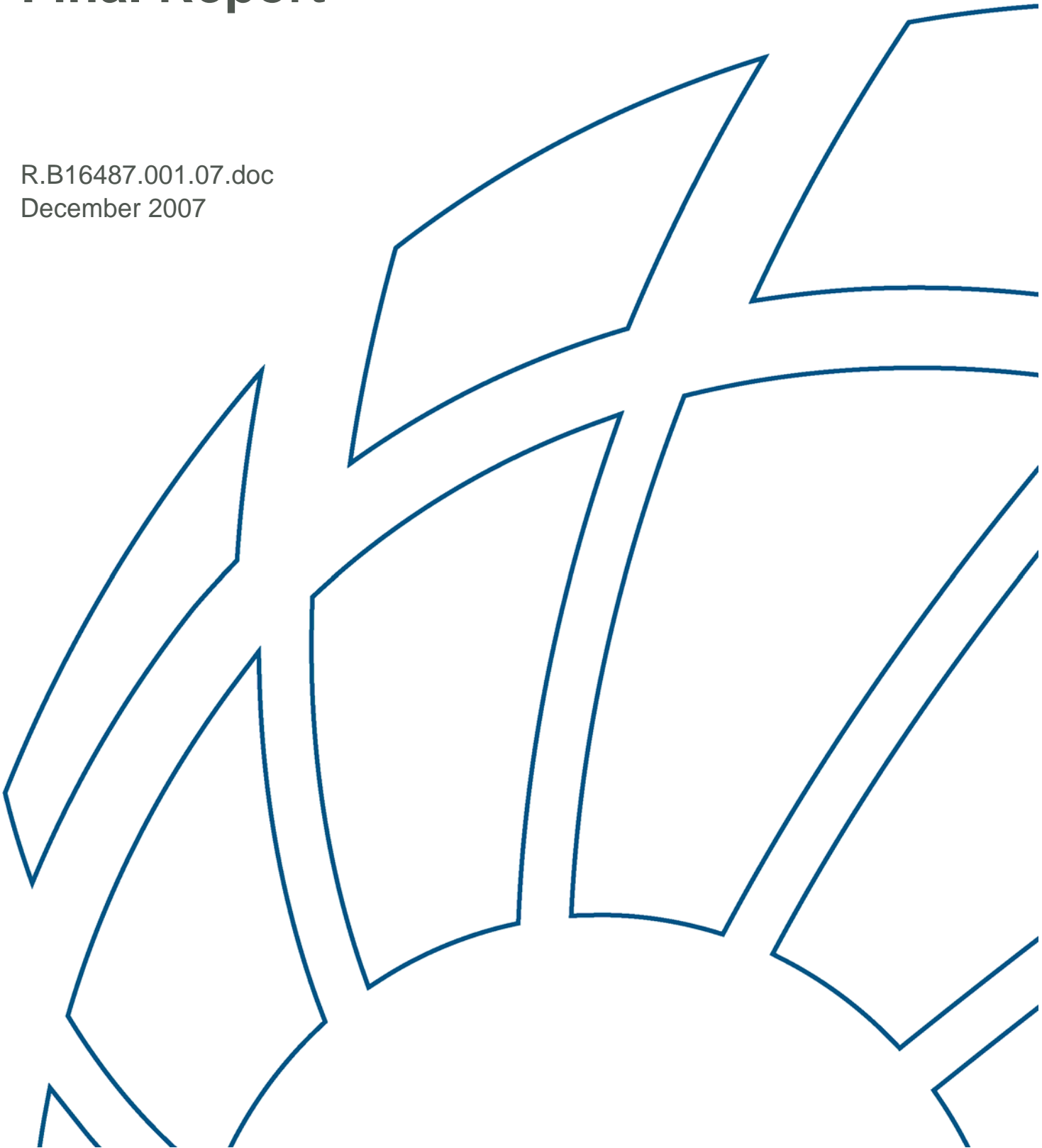


Ramsar Snapshot Study

Final Report

R.B16487.001.07.doc
December 2007



Ramsar Snapshot Study

Final Report

Prepared For: The Department of the Environment and Water Resources

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Title :	Ramsar Snapshot Study – Final Report
Authors :	Dr Darren Richardson, Brad Hiles, Lyn Raphael, Derek Johnson, Greg Fisk
Synopsis :	Report on the rapid overview (Snapshot) of Australia's Ramsar estate.
Citation	BMT WBM (2007) <i>Ramsar Snapshot Study - Final Report</i> , prepared for The Department of the Environment and Water Resources, Brisbane.
Enclosed :	CD: Ramsar Snapshot Database – Version 1.0

REVISION/CHECKING HISTORY

REVISION NUMBER	DATE OF ISSUE	CHECKED BY	ISSUED BY
0	21 June 2007	Dr Darren Richardson	Derek Johnson
1	13 August 2007	Dr Darren Richardson	Lyn Raphael
2	10 September 2007	Dr Darren Richardson	Lyn Raphael
3	13 September 2007	Dr Darren Richardson	Lyn Raphael
4	20 September 2007	Dr Darren Richardson	Lyn Raphael
5	22 October 2007	Internal	Internal
6	29 October 2007	Dr Darren Richardson	Greg Fisk
7	19 December 2007	Lyn Raphael	Brad Hiles

DISTRIBUTION

DESTINATION	REVISION						
	0	1	2	3	4	6	7
DEW	1 & PDF	16 & PDF	Word	Word	Word	PDF	PDF, Word, 2 h/c
BMT WBM File	1	1	1	1	1	1	1
BMT WBM Library	PDF	PDF	PDF	PDF	PDF	PDF	PDF

EXECUTIVE SUMMARY

Introduction

The Australian continent, off-shore islands and reefs together cover a vast area and contain a wide range of wetland types. At present, there are 65 Australian wetlands of international importance, hereafter referred to as Ramsar sites or Ramsar wetlands. The Paroo River Wetlands (site 65) was nominated for inclusion as a Ramsar site during the course of this study and has since become a listed site.

As a Contracting Party to the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar, Iran 1971, known as the Ramsar Convention), Australia is required to meet its obligations under the Ramsar Convention in terms of reporting, management planning and provision of supporting information on Ramsar wetlands. These obligations are implemented at the national level through the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)* and associated regulations, policies and funding programmes.

Currently Australia does not have a systematic reporting process to allow government stakeholders and other resource managers to gain an overarching view of the state of Australia's Ramsar estate at any given time. In response to this, BMT WBM was commissioned by the Australian Government Department of the Environment and Water Resources (DEW) to undertake a preliminary review (Snapshot) of the current status and management of all of Australia's Ramsar-listed wetlands.

The objective of this review is to provide the Australian Government with:

- An assessment of the level of information on the current state of Australia's Ramsar estate, including aspects such as the currency of each site's Ramsar Information Sheet, site maps and whether they have management plans in place;
- An assessment of quality and quantity of information regarding Ramsar wetland management currently held by the Australian Government;
- An analysis of the financial investment in Australia's Ramsar estate to date;
- An initial assessment of major threats and management issues facing the sites, including information on documentation gaps, and other on-ground issues, and analysis of anticipated key pressures in the future and their strategic management; and
- Recommendations to inform the development of a long-term rolling review of Australia's Ramsar Estate.

Methods

The study process involved four key stages: (1) Identification of Study Objectives and Information Needs, (2) Data Collation and Collection (existing data together with questionnaire completed by site managers) (3) Data Analysis, and (4) Priority Assessment. One part of the study was to collect and consider all available data, to validate their accuracy and to identify data/information gaps. DEW supplied an initial list of relevant information held by the Australian Government, which was compiled and integrated into a database (MS Access 2000) with provision for the existing data, and also for data entry from the questionnaire responses and results. The data fields within the database and

questionnaire represent indicators that consider the status of Ramsar wetlands in Australia. Most of the indicators tend to focus on the management status and arrangements for Ramsar listed wetlands, which primarily represent 'management response' type indicators. Following compilation of the data gathered in the questionnaire stage, an interpretation of data for gaps and trends, analysis of key pressures likely to impact on the future management of the Ramsar estate and strategic approaches for their management was undertaken.

Wetland Inventory and Status

Approximately 69% of the sites are located within four states/territories: Western Australia, Victoria, New South Wales, and Tasmania. Based on the *Ramsar Classification System for Wetland Type*, most Ramsar wetlands consist of inland wetland habitat types (47% of wetlands), whereas 25% of wetlands have both marine/coastal and inland wetland habitat types. Several wetland types are either not represented or poorly represented in Australian Ramsar estate. These include: karst and cave systems; forested peatlands; freshwater springs; coastal freshwater lagoons; coral reefs; and arid zone wetlands. The lack of or poor representation of some wetland types is likely to reflect their rarity (or non-existence) within Australia and its external territories, or possibly an inadequate knowledge of wetland types both within and outside Ramsar sites. Alternatively, coral reefs (e.g. Great Barrier Reef) and to a lesser extent coastal freshwater lagoons are well represented in Australia, and many are likely to fulfil Ramsar wetland listing criteria. However, for many of these areas there are existing management regimes such as marine parks that may already be providing adequate protection of wetland resources.

Pressures

Threats to wetlands differ between marine and inland wetland types. Wetlands containing both inland and marine components reportedly had a similar suite of threats as inland wetlands (i.e. water regulation and use, water quality degradation, habitat loss, pest species), together with a small number of other threats more typically recorded in marine wetlands (most notably fishing). While site managers ranked the top known/threats within each site, these results are not weighted or scaled according to the magnitude of impact at the site. There is also no means of validating the accuracy of these data, as there is no systematic description of threats (and impacts) and their magnitude within listed Ramsar wetlands. This is identified as a key information gap that should be addressed through initiatives at the site-specific, state and national levels and through the rolling review process.

Administrative Arrangements

Ramsar Information Sheets (RISs) and detailed maps are essential communication tools developed by Contracting Parties for Ramsar sites. For a site to be designated as a Ramsar wetland, a RIS must be submitted to the Ramsar Secretariat that describes the ecological character of the site along with a suitable map or maps that outlines the boundaries of the nominated site. The provisions within the *EPBC Act* establish principles that are intended to promote national standards of management. The Australian Government works cooperatively with the States and Territories to develop management plans in accordance with these principles and to ensure Australia's obligations as a Contracting Party to the Convention are met.

Management Plans (MPs) have been developed for all sites covering part or all of the wetland in Queensland, NSW, Victoria, Australian Capital Territory and the Commonwealth. MPs at sites within South Australia, Western Australia and Tasmania were in varying states of preparation. On

comparison of information supplied by DEW (including publicly available information obtained through internet searches), and information received from questionnaire respondents, it was found that DEW held the most recent management plans (MP) for 43 of the 64 listed sites. DEW held all of Victoria's most recent MPs, and >50% of NSW, South Australia, Tasmania and Commonwealth administered wetland MPs.

From the information collated by the questionnaire respondents, only 19% of MPs were seen by the respondents as being fully (100%) consistent with the Australian Ramsar management principles adopted from the *Environment Protection and Biodiversity Conservation Regulations 2000 (EPBC Regulations)* that were listed in the questionnaire, although 43% of respondents believe that their management plans cover between 50%-99% of the management principle requirements.

Fifty-four (54%) percent of RISs held by DEW were up-to-date (eg. current within the 6-year Ramsar Convention revision requirement). However, DEW held more up-to-date RISs for Australia and its external territories than the Wetlands International (WI) website, perhaps indicating not all of the up-to-date RISs had been sent through and/or posted on the website.

Over half the Ramsar sites did not have an Ecological Character Description (ECD) at time of reporting. No State or Territory in Australia had finalised ECDs for all sites within their jurisdiction. Five sites had undertaken informal assessments (e.g. an assessment has taken place since the listing of the site, however no ECD has been completed), while sites 25 (Coorong and Lakes Alexandrina and Albert) and Site 63 (Banrock Station Wetland Complex) have undertaken more detailed formal assessments to determine whether the ecological character of the wetland has changed since being declared a Ramsar wetland.

In terms of spatial data, based on the information received from site manager questionnaires, 54 of the listed 64 sites indicated that both electronic copy and hard copy maps were available for the site. More than 50% of these plans conformed to the electronic boundary data standards as referenced in the questionnaire.

The questionnaire also sought information from respondents about the degree of integration between water resource allocation processes and water management requirements for Ramsar wetlands. Overall the water requirements were described as 'well known' at 11 sites and 'partly known' for another 15 sites. These results indicate that there is a fundamental knowledge gap in the key environmental driver of most (inland) Australian Ramsar sites.

A desktop financial analysis was undertaken as part of the study that involved interrogation of the DEW/Department of Agriculture, Fisheries and Forestry (DAFF) financial database using "Ramsar" and other relevant word search combinations. From this analysis, it was found that a total of \$21,291,998 has been allocated through 159 funding events since the 1997/1998 financial year.

Site managers, as part of the questionnaire responses, also provided information about funding for Ramsar sites. From this information, thirty-five percent (35%) of the identified financial funding for Ramsar sites in Australia is in the form of State Government funding programmes, followed by NHT (including Envirofund) Regional funding and other Australian Government funding under the NAP Program.

However, it should be acknowledged that this data from the database and questionnaire responses is likely to be incomplete in terms of total investment in Ramsar site management across Australia.

Key Gaps and Recommendations

Section 4 of this Report provides a summary table of data status and information gaps observed as part of this study. Key gaps and recommendations include:

- 1 the need to continue to develop and implement wetland survey and mapping programs for Ramsar wetland sites;
- 2 the need to develop and implement a standardised national scale of tenure categories to better understand and compare the tenure classifications across Ramsar sites;
- 3 the need to develop a systematic method for describing, comparing and reporting threats and impacts (and their magnitude) among and within Australia's Ramsar wetlands. This will require the development of threat and impact indicators relevant to the wetland type under consideration. The outcomes of such assessments should be documented within each site's ECD and should be tied in to the rolling review (see below);
- 4 the need to develop a formal mechanism facilitating the transfer the range of administrative documents (management plans, RISs, ECDs, etc.) between the Commonwealth and State/Territory agencies. As a priority, there is a need to develop and implement a communication and reporting protocol to facilitate this process.

Development and implementation of a rolling review system that will allow the receipt, storage and retrieval of information/documents supplied to DEW is seen as the primary vehicle for addressing these information and data gaps. Implementation of a rolling review process would provide a more accurate national Snapshot of Australia's Ramsar Estate that could be maintained over time. With appropriate resources and methodologies in place, the rolling review process would be able to provide valuable information and analysis about the Ramsar estate across both spatial and temporal scales. This Review would assist in addressing reporting requirements for the Ramsar Convention as well as provide up-to-date information across the national estate for site managers operating at various levels of Government.

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ABBREVIATIONS/GLOSSARY

BMT WBM	Consultants engaged by DEW for the Ramsar Snapshot
DAFF	Australian Government Department of Agriculture, Fisheries and Forestry
DEW	Australian Government Department of the Environment and Water Resources
ECD	Ecological Character Description
Electronic boundary data	Electronic spatial data describing the boundaries of the Ramsar wetland site
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPBC Regulation	<i>Environment Protection and Biodiversity Conservation Regulations 2000</i>
ERIN	Environmental Resources Information Network
IBRA	Interim Biogeographic Regionalisation for Australia
Inland wetland	Based on the Ramsar Classification System for Wetland Types as approved by Recommendation 4.7 and amended by Resolutions VI.5 and VII.11 of the Conference of Contracting Parties, a wetland that contains inland wetland types (eg. Codes L-Zkb).
Inland/marine wetland	Based on the Ramsar Classification System for Wetland Types as approved by Recommendation 4.7 and amended by Resolutions VI.5 and VII.11 of the Conference of Contracting Parties, a wetland that contains both marine/coastal wetland types and inland wetland types.
IMCRA	Interim Marine and Coastal Regionalisation for Australia
Map	Refers to anything that you can visualise, ranging from an indicative map (mud map) to a survey accurate plan including hard copy and digital format.
Marine/coastal wetland	Based on the Ramsar Classification System for Wetland Types as approved by Recommendation 4.7 and amended by Resolutions VI.5 and VII.11 of the Conference of Contracting Parties, a wetland that contains marine/coastal wetland types (eg. Codes A-K, Zka).
Ramsar Convention	The Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention) aims to halt the worldwide loss of wetlands and to conserve, through wise use and management, those that remain. The signing of the Convention on Wetlands took place in 1971 in Ramsar, Iran.
Ramsar wetlands	A Ramsar wetland, for the purposes of the Ramsar Snapshot study, is either: a) an Australian wetland on the List of Wetlands of International Importance kept under the Ramsar Convention; or, b) a wetland declared to be a Ramsar wetland by the Commonwealth Environment Minister.
RIS	Ramsar Information Sheet
Ramsar Secretariat	The Secretariat of the Convention on Wetlands is housed by The World Conservation Union (IUCN) in its headquarters building in Gland, Switzerland. The treaty secretariat is an independent body answering to the Contracting Parties to the Convention.
Site	Refers to all areas within the boundary of a single Ramsar site (i.e. the whole of the site, including all sub-sites)
Sub-site	Refers to a component of a site. In some Ramsar sites, breakdown of the site into sub-sites may be relevant where; components of a site are separately nominated elements of a larger Ramsar site or components of a site that are administered separately.

WWTF	Wetlands and Waterbirds Task Force
Wetlands	Wetlands are areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water to the depth of which at low tide does not exceed six metres. Wetlands may incorporate riparian and coastal zones adjacent to the wetlands, and islands or bodies of marine water deeper than six metres at low tide lying within the wetlands.
Wetlands International (WI)	Wetlands International is a global NGO dedicated to the conservation and wise use of wetlands. The Ramsar Site Information Service is found on the Wetlands International website, and is the repository for site Overviews, Ramsar Information Sheets and Site Maps.

1 INTRODUCTION

1.1 Background

As a party to the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention), Australia is required to meet its obligations under the Convention in terms of reporting, management planning and provision of supporting information on Ramsar-listed wetlands. These obligations are implemented by the Australian Government through the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)* and the *Environment Protection and Biodiversity Conservation Regulation 2000 (EPBC Regulations)*, with national policies and resource management programs supporting the legislation. Further, legislation, regulations, policies and management plans have also been implemented at State, regional and/or local levels to provide additional support to ensure Australia meets its obligations under the Ramsar Convention.

The Australian Government Department of the Environment and Water Resources (DEW) is responsible for managing the Australian Government's main environment and water resources programmes, including representing the Government in international agreements related to the environment. This includes the responsibilities as the Administrative Authority for implementation of the Ramsar Convention in Australia, coordinating and facilitating the implementation of the requirements and responsibilities under the Convention (e.g. reporting requirements to the Ramsar Secretariat).

Currently Australia does not have a systematic reporting process to allow government stakeholders and other resource managers to gain an overarching view of the condition and status of Australia Ramsar estate at any given time. Furthermore, the Senate has called for a review of the health and management of Ramsar wetlands in Australia (30 November 2006). BMT WBM was commissioned to undertake a preliminary review (Snapshot) of the current status and management of all of Australia's Ramsar-listed wetlands.

1.2 Ramsar Snapshot Study Objectives

The objective of the Ramsar Snapshot study is to provide the Australian Government with:

- An assessment of the level of information on the current status of Australia's Ramsar estate, including aspects such as the currency of each site's Ramsar Information Sheet, site maps and whether they have management plans in place;
- An assessment of quality and quantity of information regarding Ramsar wetland management currently held by the Australian Government;
- An analysis of the financial investment in Australia's Ramsar estate to date;
- An initial assessment of major threats and management issues facing the sites, including information on documentation gaps, and other on-ground issues, and analysis of anticipated key pressures in the future and their strategic management; and
- Recommendations to inform the development of a long-term rolling review of Australia's Ramsar estate.

1.3 Australian Ramsar Sites

The Australian continent, off-shore islands, reefs and Antarctic territories together cover a vast area and contain a wide range of hydrological and environmental settings. These environmental settings, together with a wide range of human activities, control patterns in the distribution, diversity and extent of wetland systems. Australia is the driest inhabited continent, with the lowest percentage of rainfall as run-off, the lowest amount of run-off, the least amount of water in rivers and the smallest area of permanent wetlands (Wasson *et al.* 1996). Australia experiences highly variable rainfall at a range of temporal scales (inter-annual, seasonal) and across a range of spatial scales, with almost two-thirds of Australia's mean annual runoff occurring in the northern and north-eastern drainage divisions (i.e. Divisions 1, 8 and 9; Figure 1-1).

The Ramsar sites considered in this study include the 64 declared Ramsar sites and an additional site; the Paroo River Wetlands (refer Figure 1-2 and Appendix A). The Paroo River Wetlands was nominated for inclusion and has since become approved as a Ramsar site during the course of this study. Where possible, it has been considered in the report but is not included in all analyses.

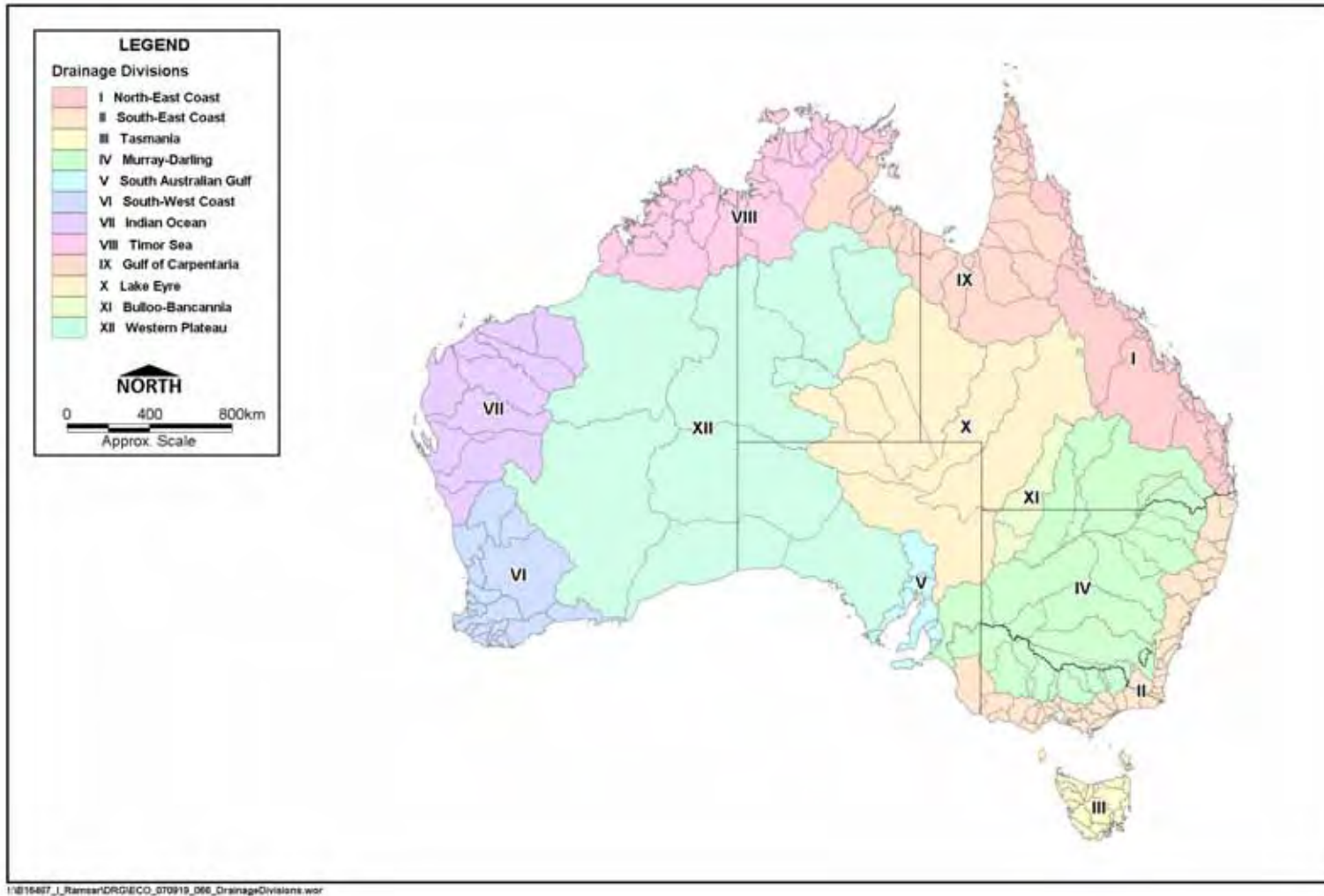


Figure 1-1 Australian Drainage Divisions

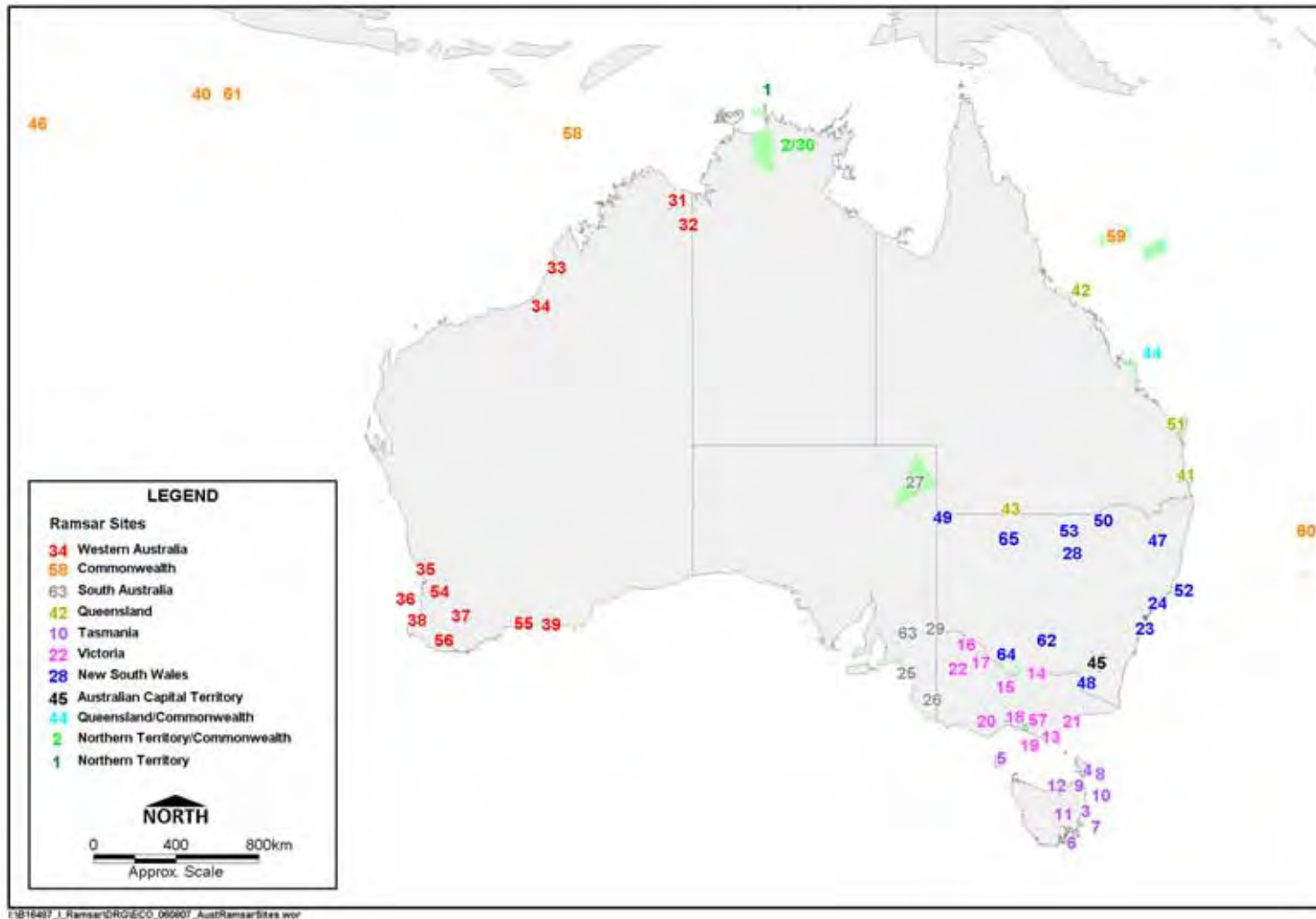


Figure 1-2 Australian Ramsar sites