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### The Convention on Wetlands

THE CONVENTION ON WETLANDS (RAMSAR, IRAN, 1971), MORE COMMONLY KNOWN AS THE RAMSAR CONVENTION, is an intergovernmental treaty dedicated to the conservation and "wise use" of wetlands. The Convention's mission is '...the conservation and wise use of wetlands by national action and international cooperation as a means to achieving sustainable development throughout the world' (Ramsar Convention Bureau 2000b).

The "wise use" of wetlands is a key concept of the Convention and is defined as:

'the sustainable utilisation of wetlands for the benefit of mankind in a way compatible with the maintenance of the natural properties of the ecosystem' (Recommendation 3.3).

Sustainable utilisation of a wetland is defined as:

'human use of a wetland so that it may yield the greatest continuous benefit to present generations while maintaining its potential to meet the needs and aspiration of future generations' (Recommendation 3.3).

Australia was one of the first of 18 countries to become a signatory to the Convention in 1971, and in 1974 designated the first wetland to the Ramsar List of Wetlands of International Importance — Cobourg Peninsula Aboriginal Land and Wildlife Sanctuary.

As of December 2000, there are 123 Contracting Parties to the Convention with 1044 wetland sites designated for inclusion in the List of Wetlands of International Importance, totalling 78.5 million hectares (Ramsar Convention Bureau 2000b). Australia has 56 Ramsar sites covering an area of approximately 5.3 million hectares (refer to Figure 2).

Further information on the Convention on Wetlands can be obtained by visiting the Ramsar Convention Bureau's website at http://ramsar.org

## Ramsar Criteria for Inclusion

A wetland is identified as being of international importance if it meets at least one of a number of criteria relating to the site's uniqueness, rarity, or representativeness, or the flora, fauna or ecological communities it supports. The current criteria, agreed upon by Contracting Parties at the seventh Conference of Parties held in Costa Rica, May 1999 have been applied to sites designated since that time and to any sites where the Ramsar Information Sheet (RIS) has been reviewed and updated. The criteria are set out below:

# Group A of the Criteria. Sites containing representative, rare or unique wetland types

*Criterion 1:* A wetland should be considered internationally important if it contains a representative, rare, or unique example of a natural or near-natural wetland type found within the appropriate biogeographic region.

# Group B of the Criteria. Sites of international importance for conserving biological diversity

CRITERIA BASED ON SPECIES AND ECOLOGICAL COMMUNITIES

Criterion 2: A wetland should be considered internationally important if it supports vulnerable, endangered, or critically endangered species or threatened ecological communities.

*Criterion 3:* A wetland should be considered internationally important if it supports populations of plant and/or animal species important for maintaining the biological diversity of a particular biogeographic region.

*Criterion 4*: A wetland should be considered internationally important if it supports plant and/or animal species at a critical stage in their life cycles, or provides refuge during adverse conditions.

SPECIFIC CRITERIA BASED ON WATERBIRDS

*Criterion 5*: A wetland should be considered internationally important if it regularly supports 20,000 or more waterbirds.

Criterion 6: A wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird.

SPECIFIC CRITERIA BASED ON FISH

Criterion 7: A wetland should be considered internationally important if it supports a significant proportion of indigenous fish subspecies, species or families, life-history stages, species interactions and/or populations that are representative of wetland benefits and/or values and thereby contributes to global biological diversity.

*Criterion 8:* A wetland should be considered internationally important if it is an important source of food for fishes, spawning ground, nursery and/or migration path on which fish stocks, either within the wetland or elsewhere, depend.

The following criteria are applicable to those sites designated prior to May 1999. As sites are reviewed, the new criteria will be applied and the RIS for the site will be updated.

#### 1. Criteria for representative or unique wetlands

A wetland should be considered internationally important if:

- (a) it is a particularly good representative example of a natural or near-natural wetland, characteristic of the appropriate biogeographical region; or
- (b) it is a particularly good representative example of a natural or near-natural wetland, common to more than one biogeographical region; or
- (c) it is a particularly good representative example of a wetland which plays a substantial hydrological, biological or ecological role in the natural functioning of a major river basin or coastal system, especially where it is located in a trans-border position; or
- (d) it is an example of a specific type of wetland, rare or unusual in the appropriate biogeographical region.

#### 2. General criteria based on plants or animals

A wetland should be considered internationally important if:

- (a) it supports an appreciable assemblage of rare, vulnerable or endangered species or subspecies of plant or animal, or an appreciable number of individuals of any one or more of these species; or
- (b) it is of special value for maintaining the genetic and ecological diversity of a region because of the quality and peculiarities of its flora and fauna; or
- (c) it is of special value as the habitat of plants or animals at a critical stage of their biological cycle; or
- (d) it is of special value for one or more endemic plant or animal species or communities.

#### 3. Specific criteria based on waterfowl

A wetland should be considered internationally important if:

- (a) it regularly supports 20,000 waterfowl; or
- (b) it regularly supports substantial numbers of individuals from particular groups of waterfowl, indicative of wetland values, productivity or diversity; or
- (c) where data on populations are available, it regularly supports 1% of the individuals in a population of one species or subspecies of waterfowl.

#### 4. Specific criteria based on fish

A wetland should be considered internationally important if:

- (a) it supports a significant proportion of indigenous fish subspecies, species or families, life-history stages, species interactions and/or populations that are representative of wetland benefits and/or values and thereby contributes to global biological diversity; or
- (b) it is an important source of food for fishes, spawning ground, nursery and/or migration path on which fish stocks, either within the wetland or elsewhere, depend.

# Management of Listed Ramsar Sites

Once a site is designated to the List of Wetlands of International Importance under the Convention, the relevant Contracting Party must ensure that the site is managed such that its ecological character is maintained. The ecological character of a site is `...the sum of the biological, physical, and chemical components of the wetland ecosystem, and their interactions, which maintain the wetland and its products, functions, and attributes' (Ramsar Convention Bureau 2000b).

Management planning provides an appropriate framework for ensuring that the ecological character of a Ramsar site is maintained. The Ramsar Convention has developed management planning guidelines to assist Contracting Parties to develop management plans for each Ramsar site. Australia currently has management plans in place or in preparation for 44 (79%) of its 56 Ramsar sites.

Australia's obligations to protect and maintain the ecological character of its Ramsar sites have recently been recognised in national legislation through the *Environment Protection and Biodiversity Conservation (EPBC) Act 1999*. The Act introduces an environmental assessment and approval regime for actions that have, may have or are likely to have a significant impact on Ramsar Wetlands and most importantly, establishes new standards for managing Ramsar wetlands through the Australian Ramsar Management Principles which have been established as regulations under the Act.

Further information on the EPBC Act can be obtained from Environment Australia's EPBC website at http://www.environment.gov.au/epbc

### Ramsar in Australia

Australia has designated 56 wetlands to the Ramsar List of Wetlands of International Importance (Figure 2). Table 4.1 indicates the number of Ramsar sites in each management jurisdiction and the total area coverage. A summary of the area, wetland types and Ramsar criteria for each site is listed at Table 4.2 (The Ramsar Classification System for Wetland Type is at Appendix 4). A Ramsar Information Sheet describing each Ramsar site and a map showing the site's boundary can be obtained through the Wetlands Section—Environment Australia website: http://www.environment.gov.au/water/wetlands

Table 4.1 Number and area of Ramsar sites in each Australian jurisdiction

Management authority		No. of sites	Area (ha)
Australian Capital Territory	ACT	1	343
Commonwealth	COMM	4	1,376,062.33
New South Wales	NSW	9	74,382.50
Northern Territory	NT	1	220,700
Queensland	QLD	5 <sup>*</sup>	632,374
South Australia	SA	4	2,154,300
Tasmania	TAS	10	26,207
Victoria	VIC	10	306,844
Western Australia	WA	12	517,970
Total		56	5,309,182.83

<sup>\*</sup> includes Shoalwater Bay which is jointly managed with the Commonwealth

Table 4.2 Summary List of Australia's Ramsar sites

Site no.	Site name	Managemen authority	nt Area (ha)	Wetland type	Ramsar Criteria
1	Cobourg Peninsula	NT	220,700	C, D, E, F, G, I, N, Sp	1a, 2a, 3a, 3b
2	Kakadu National Park (Stage 1) (Including the extension of boundaries of Stage I to incorporate wetland components of Kakadu National Park Stage III)	COMM	683,000	A, B, E, F, G, H, I, K, L, M, N, R, Sp, Tp, Ts, Xp, 6	1a, 1b, 1c, 2a 2b, 3a, 3b, 3c
3	Moulting Lagoon Game Reserve	TAS	4,496	F, G, H, M, R	1a, 2a, 3b, 3c
4	Logan Lagoon Conservation Area	TAS	2,172	E, J, N	1a, 2c, 3b
5	Lavinia Nature Reserve	TAS	6,904	F, G, H, K, M, O, Sp, Ts, W, Xf	2a, 2c, 2d
6	Pitt Water—Orielton Lagoon	TAS	3,289	F, G, H, M, Q, R	2a, 2b, 2d, 3b
7	Apsley Marshes	TAS	865	F, R, Tp	2a, 2b
8	East Coast Cape Barren Island Lagoons	TAS	4,480	J	2b, 2d
9	Flood Plain Lower Ringarooma River including "The Chimneys"	TAS	3,407	M, Tp, Ts	2a, 2b
10	Jocks Lagoon	TAS	19	E, K	2b
11	Interlaken Lakeside Reserve (Lake Crescent)	TAS	519	O, R	2a, 2b
12	Little Waterhouse Lake	TAS	56	K	1b, 2b
13	Corner Inlet	VIC	67,186	A, G, H, I	1a, 1b, 1c, 2b, 3a, 3b, 3c
14	Barmah Forest	VIC	28,515	N, O, Ts, Xf	1a, 2b, 3a, 3b, 3c
15	Gunbower Forest	VIC	19,931	N, Ts, Xf	2b, 3a, 3b, 3c
16	Hattah—Kulkyne Lakes	VIC	955	O, P	2b, 3a, 3b, 3c
17	Kerang Wetlands	VIC	9,419	O, Q, Tp, Ts	1a, 1b, 2b, 3a, 3b, 3c
18	Port Phillip Bay (Western Shoreline) and Bellarine Peninsula	VIC	22,897	A, D, E, F, G, H, M, Tp, 3, 8	1a, 1b, 2b, 3a, 3b, 3c
19	Western Port	VIC	59,297	B, G, H, I	1a, 1b, 3a, 3b, 3c
20	Western District Lakes	VIC	32,898	O, Q	1a, 3a, 3b, 3c
21	Gippsland Lakes	VIC	60,015	J, Sp, Tp	1a, 3a, 3b, 3c
22	Lake Albacutya	VIC	5,731	P	1a, 1b, 3a, 3b, 3c
23	Towra Point Nature Reserve	NSW	386.50	E, F, G, H	1a, 2a, 2b, 3b, 3c
24	Kooragang Nature Reserve	NSW	2,926	D, E, F, G, H, I, J, K	1a, 2a, 2b, 3b, 3c
25	The Coorong, and Lakes Alexandrina and Albert Wetland	SA	140,500	F, J, M, O, Q, 6	1, 2, 3, 4, 5, 6
26	Bool and Hacks Lagoons	SA	3,200	N, O, P, Tp	1a, 1b, 1c, 2a, 2b, 2c, 3a, 3c
27	Coongie Lakes	SA 1.	,980,000	M,N,P,Sp,Tp,Ts	1b, 1c, 2a, 2b, 2c, 2d, 3a, 3c
28	The Macquarie Marshes	NSW	18,726	N,P,Tp,Ts,W,Xf	1, 2, 3, 4, 5

Site no.	Site name	Manageme authority	nt Area (ha)	Wetland type	Ramsar Criteria
29	"Riverland"	SA	30,600	M, O, P, R, Tp	1a, 1b, 1c, 3b
30	Kakadu National Park (Stage 2)	COMM	692,940	A, B, E, F, G, H, I, M, N, R, Sp, Tp, Xp	1a, 1c, 2b, 2c, 3a, 3b, 3c
31	Ord River Floodplain	WA	141,453	F, G, H, I, J, K, N, Tp, Ts, W, Xf, Y	1, 2, 3
32	Lakes Argyle and Kununurra	WA	150,000	M, O, 6	2a, 3a
33	Roebuck Bay	WA	55,000	G	1a, 3a, 3c
34	Eighty-mile Beach	WA	125,000	G, R, Sp	1a, 2c, 3a, 3c
35	Forrestdale and Thomsons Lakes	WA	754	P	1a, 2b, 3c
36	Peel—Yalgorup System	WA	26,530	F,G,H,Q,Tp,Ts,W,Xf	1a, 2c, 3a, 3c
37	Lake Toolibin	WA	493	Xf	1, 2, 3, 4
38	Vasse—Wonnerup System	WA	1,115	J, N, Ss, Xf	5, 6
39	Lake Warden System	WA	2,300	J, Q, R	1a, 3a, 3c
40	Hosnie's Spring, Christmas Island	COMM	0.33	M, Xf, Y	1a, 2a, 2d
41	Moreton Bay	QLD	113,314	A, B, C, D, E, F, G, H, I, J, L, M, O, Q, Tp, Ts, W, Xf, Xp, 9	1b, 1c, 2a, 2b, 2c, 3a, 3b, 3c
42	Bowling Green Bay	QLD	35,500	A, D, E, F, G, H, I, J, N, R, Ss, Ts, Xf, 2	1a, 1b, 1c, 2a, 2b, 2c, 3a, 3b, 3c
43	Currawinya Lakes (Currawinya National Park)	QLD	151,300	N, O, P, Q, Ts	1a, 1b, 2a, 2b, 2c, 3a, 3b, 3c
44	Shoalwater and Corio Bays Area (Shoalwater Bay Training Area, in part—Corio Bay)	QLD & COMM	239,100	A, B, D, E, F, G, H, I, J	1a, 1c, 2a, 2b, 2c, 2d, 3a, 3b, 3c
45	Ginini Flats Wetland Complex	ACT	343	U	1a, 2a, 2b, 2c
46	Pulu Keeling National Park (North Keeling Island)	COMM	122	B, C, D, E	1a, 1d, 2a, 2b, 2c
47	Little Llangothlin Nature Reserve	NSW	258	P, Q	1a, 2a, 2c
48	Blue Lake	NSW	320	Vt	1a, 1d, 2b, 2d
49	Lake Pinaroo (Fort Grey Basin)	NSW	800	R	1a, 2a, 2c, 2d, 3b
50	Gwydir Wetlands: Gingham and Lower Gwydir (Big Leather) Watercourses	NSW	823	L, N, P, Tp, Ts, W, Xf	1a, 1b, 1c, 1d, 2a, 2b, 2c, 3a, 3b
51	Great Sandy Strait (including Great Sandy Strait, Tin Can Bay and Tin Can Inlet)	QLD	93,160	A, B, C, E, F, G, H, I, J, K, U, Xf	1a, 1b, 1d, 2a, 2b, 3a, 3b, 3c, 4b
52	Myall Lakes	NSW	44,612	$\mathrm{D},\mathrm{E},\mathrm{F},\mathrm{H},\mathrm{I},\mathrm{J},\mathrm{K}$	1a, 1c, 2a, 3b
53	Narran Lake Nature Reserve	NSW	5,531	N, P, Ts, W, Xf	1a, 2c, 3c
54	Becher Point Wetlands	WA	677	Ts, W	1, 2
55	Lake Gore	WA	4,017	R, Ss	4, 5, 6
56	Muir—Byenup System	WA	10,631	O, R, Tp, Ts, U, W, Xf	2, 4, 5, 6

## Looking to the Future

Contracting Parties to the Convention on Wetlands adopted the Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance (Ramsar Convention Bureau 2000a) at the seventh Conference of Parties in May 1999. Its purpose is to provide a clearer vision of the long-term targets which the Convention is seeking to achieve through the Ramsar List, and to assist Contracting Parties to take a systematic approach to identifying priorities for future designations. Contracting Parties also agreed to a short-term target of 2,000 sites for the Ramsar List by the year 2005, recognising that the Strategic Framework and Guidelines should be taken into consideration.

A Global Review of Wetland Resources and Priorities for Wetland Inventory, undertaken by Wetlands International (Finlayson and Spiers 1999), highlighted wetland types for which inventory data was lacking and which are poorly represented in the Ramsar List of Wetlands of International Importance. Resolution VII.20 calls upon Contracting Parties to give attention to these priority wetland habitats which include: seagrasses, coral reefs, salt marshes and coastal flats, mangroves, arid zone wetlands, peatlands, rivers and streams, and artificial wetlands.

An analysis of Australian Ramsar sites indicates that a number of wetland types are not represented or are under-represented on the List of Wetlands of International Importance (Table 4.3). These include karst and cave systems; peatlands; coral reefs; and arid zone wetlands (which may include permanent and seasonal/intermittent saline/brackish/alkaline water bodies, and freshwater springs).

The Commonwealth Government will be undertaking a systematic review of its wetland holdings to determine which sites satisfy the Ramsar criteria, with a view to listing new sites. Priority will be placed on these wetland types when considering new sites for listing under the Convention on Wetlands. The States and Territories will also be encouraged to undertake a similar analysis for wetlands within their jurisdiction.

Several State and Territory governments are currently undertaking wetland inventory projects with funding provided by the National Wetlands Program of the Natural Heritage Trust. Particular focus is being placed on wetland types and bioregions that are either under-represented or not represented in the Directory (refer to Appendices 1 and 2). In particular, the Parks and Wildlife Commission of the Northern Territory is undertaking an inventory of wetlands in the arid zone of the Northern Territory. The project covers 10 bioregions, including the MacDonnell Ranges and Burt Plain. The Queensland Environmental Protection Agency is surveying the South East Queensland, Einasleigh Uplands, and the Brigalow Belt North and South bioregions. Not only will these projects deliver new listings for the Directory, it is also likely that potential Ramsar wetlands will be identified.

Table 4.3 Number of Ramsar sites in each wetland type by jurisdiction
(The Ramsar Classification System for Wetland Type is at Appendix 4).

#### Marine /coastal wetlands

Wetland type:	A	В	C	D	E	F	G	Н	I	J	K	Zk(a)
ACT	0	0	0	0	0	0	0	0	0	0	0	0
COMM	2	3	1	1	3	2	2	2	2	0	1	0
NSW	0	0	0	2,	3	3	2	3	2	2	2	0
NT	0	0	1	1	1	1	1	0	1	0	0	0
QLD	4	3	2,	3	4	4	4	4	4	4	1	0
SA	0	0	0	0	0	1	0	0	0	1	0	0
TAS	0	0	0	0	2	4	3	3	0	2	3	0
VIC	2,	1	0	1	1	1	3	3	2	1	0	0
WA	0	0	0	0	0	2	4	2	1	3	1	0
Total*	8	7	4	8	14	18	19	17	12	13	8	0

#### Inland wetlands

Wetland type:	L	M	N	0	P	Q	R	Sp	Ss	Tp	Ts	U	Va	Vt	W	Xf	Хp	Y	Zg	Zk(b)
ACT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
COMM	1	3	2	0	0	0	2	2	0	2	1	0	0	0	0	1	2	1	0	0
NSW	1	0	3	0	4	1	1	0	0	2	3	0	0	1	3	3	0	0	0	0
NT	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
QLD	1	1	2	2	1	2	1	0	1	1	3	1	0	0	1	0	1	0	0	0
SA	0	3	2	3	3	1	1	1	0	3	1	0	0	0	0	0	0	0	0	0
TAS	0	4	1	2	0	1	4	1	0	2	2	0	0	0	1	1	0	0	0	0
VIC	0	1	2	4	2	2	0	1	0	3	3	0	0	0	0	2	0	0	0	0
WA	0	1	2	2	1	2	4	1	2	3	4	1	0	0	4	5	0	1	0	0
Total*	3	13	15	13	11	9	13	7	3	16	17	3	0	1	9	12	3	2	0	0

#### Human-made wetlands

Wetland type:	1	2,	3	4	5	6	7	8	9
ACT	0	0	0	0	0	0	0	0	0
COMM	0	0	0	0	0	1	0	0	0
NSW	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0
QLD	0	1	0	0	0	0	0	0	1
SA	0	0	0	0	0	1	0	0	0
TAS	0	0	0	0	0	0	0	0	0
VIC	0	0	1	0	0	0	0	1	0
WA	0	0	0	0	0	1	0	0	0
Total*	0	1	1	0	0	3	0	1	1

 $<sup>{}^*</sup>A\ wetland\ listing/site\ may\ be\ counted\ against\ more\ than\ one\ wetland\ type$