

Information Sheet on Ramsar Wetlands (RIS)

Categories approved by Recommendation 4.7, as amended by Resolution VIII.13 of the Conference of the Contracting Parties.

Note for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.
2. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Bureau. Compilers are strongly urged to provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of maps.

1. Name and address of the compiler of this form:

Department of Primary Industries, Water and
Environment (DPIWE)
GPO Box 44
HOBART, Tasmania 7001

FOR OFFICE USE ONLY.

DD MM YY		

Designation date

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Site Reference Number

2. Date this sheet was completed/updated:

June 2005

3. Country:

Australia

4. Name of the Ramsar site:

Flood Plain Lower Ringarooma River

5. Map of site included:

Refer to Annex III of the *Explanatory Note and Guidelines*, for detailed guidance on provision of suitable maps.

a) **hard copy** (required for inclusion of site in the Ramsar List): *yes* -or- *no*

b) **digital (electronic) format** (optional): *yes* X -or- *no*

6. Geographical coordinates (latitude/longitude):

Latitude: 40 degrees 53' 00", Longitude: 147 degrees 56' 00".

7. General location:

Include in which part of the country and which large administrative region(s), and the location of the nearest large town.

Flood Plain Lower Ringarooma River Ramsar site is located on the far north-east coast of Tasmania, 9 km north-west of the township of Gladstone. The sites lies between Cape Portland and Waterhouse Point, extending from Boobyalla Beach inland along the Ringarooma River floodplain. The site is in the Dorset municipality, the population of which was 7339 in 2001 (Australian Bureau of Statistics 2004).

8. Elevation: (average and/or max. & min.)

Less than 20 m ASL.

9. Area: (in hectares)

3519 ha.*

* An approximate area was given in the original nomination (1 650 ha). The boundary was better defined and wetland areas were added in 1998, increasing the area of the site to 3 390 ha. This redefinition was submitted in the 1998 RIS. Since that time a desktop survey of the Ramsar site boundaries was undertaken in 2001. The boundaries of the Ramsar site were developed as a registered plan. This used an

updated low water mark coverage that was available in 2001. The area of the site was recalculated at this time to be 3 519 ha.

10. Overview:

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

The site is situated on the sandy flood plain of the Lower Ringarooma River which encompasses extensive marshlands of which Fosters Marshes is significant and a number of shallow lagoons; Shantys Lagoon, Blueys Lagoon and Bowlers Lagoon. The Ringarooma River drains out into Ringarooma Bay. The site includes the Boobyalla Inlet estuary and parts of both Boobyalla Beach and Murdochs Beach to the east and west of the River mouth respectively. A mobile sand dune system occurs in the northern part of the site. The flood plain supports a variety of habitats which are significant to a number of species.

11. Ramsar Criteria:

Circle or underline each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11).

1 • 2 • 3 • 4 • 5 • 6 • 7 • 8

12. Justification for the application of each Criterion listed in 11. above:

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

Criterion 1 - The geoscientific significance of the area relates to its age. The Chimneys, a small section in the middle of the marshes, is thought to be older than other lakes in the area (being situated well within known Pleistocene dunefields). If so, it is of considerable interest from a palynological and palaeobotanical perspective. The Chimneys may also have important subfossil potential such as megafaunal remains. The site contains excellent examples of wetland systems for the Flinders Biogeographic Region; a floodplain with a system of permanent and seasonal marshlands; and a large mesotidal river estuary (Boobyalla Inlet). Boobyalla Inlet is recognised as a Tasmanian estuary with high conservation significance (Edgar, Barrett and Graddon 1999).

Criterion 2 - The site supports four nationally threatened fauna species; a population of Green and gold frog (*Litoria raniformis*) (Vulnerable, Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC) and vulnerable, Tasmanian *Threatened Species Protection Act 1995* (TSPA)), Wedge-tailed eagle (*Aquila audax fleayi*, Endangered, EPBC and endangered, TSPA), Spotted-tailed quoll (*Dasyurus maculatus maculatus*, Vulnerable, EPBC and rare, TSPA) and Dwarf galaxias (*Galaxiella pusilla*, Vulnerable, EPBC and rare, TSPA) which is threatened due to its limited distribution at unprotected sites.

Criterion 3 - The flood plain supports a number of species which are rare or vulnerable, and are poorly reserved in Tasmania. It is also an important site due to its diverse invertebrate fauna. The series of shallow freshwater lakes in the area, are an important feeding and nesting place for many species of waterbirds. Threatened flora species known to occur on the site are Purple loosestrife (*Lythrum salicaria*, vulnerable, TSPA), Ribbon weed (*Vallisneria americana*, rare, TSPA) and Erect marshflower (*Villarsia exaltata*, rare, TSPA) for which the Chimneys is a key site. Native gypsywort (*Lycopus australis*, endangered, TSPA), which was previously thought to be extinct in Tasmania, has recently been found at the site. Fauna species listed as threatened in Tasmania that have been recorded from the site are Little tern (*Sterna albifrons*, rare, TSPA), Fairy tern (*Sterna nereis*, rare, TSPA) and White-bellied sea eagle (*Haliaeetus leucogaster*, vulnerable, TSPA).

13. Biogeography (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

a) biogeographic region: Flinders

b) biogeographic regionalisation scheme (include reference citation): Interim Biogeographic Regionalisation for Australia version 5.

14. Physical features of the site:

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

The Flood Plain of the Lower Ringarooma is a composite of natural and human disturbance-induced features. Natural features include Bowlers Lagoon, which is a dune-barred lake in the sand sheet behind Boobyalla Beach. Other natural features are some natural deflation hollows and their associated lunettes. However, the bulk of the wet area is artificial. The sediment load of the Ringarooma River has been vastly increased by the input of 40 million cubic metres of mine tailings. Some of this sediment has been transported to the Ramsar site at the mouth of the river, where it has been deposited to form a huge and complex set of levees and sediment splays. These trap water on the floodplain forming extensive wetlands (Jerie pers. comm.).

The area consists of flat plains of Quaternary clays, sands and gravels. Silty clay soil overlays a deep grey sand, with silt content decreasing with depth. The silt is derived from previous tin mining activity in the river catchment. The area is regularly flooded by overflow from the river. The maximum depth of water in The Chimneys is 2-4 m, whilst the maximum permanent depth of water is 0.5-1 m. Water pH is around 5. Average annual rainfall of the area is 625 - 750 mm.

The Chimneys may represent the remnants of a once more extensive lake system.

15. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, general land use, and climate (including climate type).

Much of the surrounding land has been cleared for agriculture. The land use has recently changed from extensive cattle grazing to intensive dairy production. The pasture is now irrigated and strip grazed which concentrates the deposition of manure.

16. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

The hydrology of this site is influenced by tidal flows, river flows and local groundwater. The bulk of the wet area is above the tidal limit and is largely controlled by inflows from the Ringarooma River. The hydrology is influenced by mining-related changes to the river throughout the catchment. The estuary itself is also subject to tidal flows. Local groundwater influences some smaller areas that are separate from the river, such as Bowlers Lagoon (Jerie pers. comm.).

The wetland buffers flood peaks and processes nutrients that would otherwise be deposited in the estuary. It also continues to trap a portion of the mine-related sediment that will continue to be transported down the river for many decades. It is unlikely to trap all the sediment, so some will continue to be transported through the estuary to the coast. In the long term, this sediment trapping in the wetlands is likely to change the form and location of the flooded area, and so has the potential to impact on the Ramsar values of the site (Jerie pers. comm.).

17. Wetland Types

a) presence:

Circle or underline the applicable codes for the wetland types of the Ramsar "Classification System for Wetland Type" present in the Ramsar site. Descriptions of each wetland type code are provided in Annex I of the *Explanatory Notes & Guidelines*.

Marine/coastal: A • B • C • D • E • F • G • H • I • J • K • Zk(a)

Inland: L • M • N • O • P • Q • R • Sp • Ss • Tp Ts • U • Va •
Vt • W • Xf • Xp • Y • Zg • Zk(b)

Human-made: 1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9 • Zk(c)

b) dominance:

List the wetland types identified in a) above in order of their dominance (by area) in the Ramsar site, starting with the wetland type with the largest area.

Tp, M, Ts and F.

18. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site.

The area is dominated by scrub and tussock grassland vegetation, and includes substantial areas of freshwater marsh habitat in the floodplain. The variety of habitats support the following vegetation communities: Saltmarsh, Coastal grass and herbfield, Lowland sedgy heathland, Wet heathland, Coastal heathland, Coastal scrub, *Acacia longifolia* coastal scrub, *Allocasuarina verticillata* forest and *Eucalyptus amygdalina* coastal forest.

The lagoons, marshlands and dunes support a rich variety of invertebrate fauna.

19. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Three vegetation communities recognised as threatened in Tasmania also occur within the site; Wetland, *Melaleuca squarrosa* scrub and *Melaleuca ericifolia* swamp forest.

A number of species found on the flood plain are of botanical interest, these include: *Persicaria praetermissa* (located at less than 20 sites in the State) and *Centipeda elatinoides* which are both poorly reserved in Tasmania. The *Isolepis fluitans* aquatic community present at the site is also poorly reserved.

Within Tasmania, Saltmarsh vegetation communities, which occur on the site, qualify for two of the Biodiversity Criteria developed by Joint ANZECC (Australia and New Zealand Environment and Conservation Council)/MCFFA (Ministerial Council on Forestry, Fisheries and Aquaculture) National Forest Policy Statement Implementation Sub-committee (JANIS). Criteria (1); as less than 3% of the pre-1750 distribution of Saltmarsh vegetation is protected in the Comprehensive Adequate and Representative (CAR) reserve system and Criteria (5); as they are a habitat for migratory species which are also often rare, vulnerable or endangered. Though Saltmarsh communities are not currently listed as threatened within Tasmania, these communities serve a critical ecological function and are at risk due to their low reservation status.

20. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare,

endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Due to the large area of shallow water, the site is considered to be a good feeding area for dabbling ducks and other waterbirds. The area provides nesting habitat for many species of waterbirds, particularly the Australasian shoveler (*Anas rhynchotis*).

A number of migratory birds have been recorded from the site; nine migratory birds listed on the China - Australia Migratory Bird Agreement (CAMBA) and nine species listed on the Japan - Australia Migratory Bird Agreement (JAMBA). These species include: Cattle egret (*Ardea ibis*), Great egret (*Ardea alba*), Latham's snipe (*Gallinago hardwickii*), Curlew sandpiper (*Calidris ferruginea*), Red-necked stint (*Calidris ruficollis*), Bar-tailed godwit (*Limosa lapponica*), Caspian tern (*Sterna caspia*) and Greenshank (*Tringa nebularia*). Approximately 3 km of beaches are included in the site, from which a number of beach nesting shorebirds have been recorded; Little tern (*Sterna albifrons*, listed on JAMBA and CAMBA), Hooded plover (*Thinornis rubricollis*) and Fairy tern (*Sterna nereis*).

21. Social and cultural values:

e.g., fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values.

There is evidence that the floodplain was used by Aboriginal people. It also has a long history of European occupation and mining exploitation. Currently, limited use is made of the area for activities which include duck shooting and cattle grazing.

22. Land tenure/ownership:

a) within the Ramsar site: An area between the Ringarooma River and the western boundary is included in the Cameron Regional Reserve with approximately 120 hectares of this utilised under temporary grazing licenses and the coastal strip is a Public Reserve but the majority is privately owned.

b) in the surrounding area: Private freehold, Cameron Regional Reserve.

23. Current land (including water) use:

a) within the Ramsar site: Recreational shooting, fishing, bird watching, grazing and wildlife observation.

b) in the surroundings/catchment: : Livestock grazing, bird watching and fishing.

24. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

a) within the Ramsar site: The area is disturbed by runoff of nutrients from intensive livestock grazing and associated pivot irrigation. Native vegetation communities have also been invaded by an array of exotic plants. Areas of the site are prone to siltation which has been primarily caused by erosion from mining areas.

b) in the surrounding area: There is a threat of further siltation from old mining activities and eutrophication from agricultural runoff.

25. Conservation measures taken:

List national category and legal status of protected areas, including boundary relationships with the Ramsar site; management practices; whether an officially approved management plan exists and whether it is being implemented.

The flood plain is listed on the Convention on Wetlands (Ramsar, Iran, 1971). Replanting of some areas of abandoned mine workings has been carried out, but has been of limited success. Areas of Crown Land have been included in the Cameron Regional Reserve.

Within the Boobyalla Inlet, there is no netting allowed upstream of a line from Campbells Point east to the opposite shore (*Fisheries (Scalefish) Rules 2004*). Campbells Point is located at the mouth of the Ringarooma River.

26. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

A management agreement for the area is intended to be written with the cooperation and consent of local landowners.

27. Current scientific research and facilities:

e.g., details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

Little work has been carried out in this area. There are no facilities.

28. Current conservation education:

e.g. visitors' centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

The area is used by local community groups for observing birds.

29. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

Recreational shooting, fishing, bird watching and wildlife observation.

30. Jurisdiction:

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept of Agriculture/Dept. of Environment, etc.

Territorial: Dorset Council. Functional: Landowner/ Parks and Wildlife Service.

31. Management authority:

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

Landowner/ Director, Parks and Wildlife Service
GPO Box 1751
HOBART, Tasmania 7001

32. Bibliographical references:

scientific/technical references only. If biogeographic regionalisation scheme applied (see 13 above), list full reference citation for the scheme.

Australian Bureau of Statistics (2004). *Regional Population Growth, Australia and New Zealand* (cat. no. 3218.0). Australian Bureau of Statistics, Canberra.

Bryant, Dr S. (2002). *Conservation assessment of beach nesting and migratory shorebirds in Tasmania*. Nature Conservation Branch, Department of Primary Industries, Water and Environment, Hobart.

Buchanan, A.M. (2004). *A Census of the Vascular Plants of Tasmania*. Tasmanian Herbarium, Tasmanian Museum and Art Gallery, Sandy Bay.

Edgar, G.J., Barrett, N.S. and Graddon, D.J. (1999) *A Classification of Tasmanian Estuaries and Assessment of their Conservation Significance using Ecological and Physical Attributes, Population and Land Use*.

Harris, S. & Kitchener, A. (Eds) (2004) *Tasmania's vegetation, A technical manual for TASVEG: Tasmania's Vegetation Map*. Version 1.0. Nature Conservation Branch. DPIWE. Hobart.

<http://www.anca.gov.au/environm/wetlands/tas.htm>

<http://www.parks.tas.gov.au/manage/parksres/reserves.html>

Joint ANZECC (Australia and New Zealand Environment and Conservation Council)/MCFFA (Ministerial Council on Forestry, Fisheries and Aquaculture) National Forest Policy Statement Implementation Sub-committee (JANIS). (1997). Nationally Agreed Criteria for the Establishment of a Comprehensive, Adequate and Representative Reserve System for Forests in Australia. Environment Australia and Department of Primary Industries and Energy, Canberra.

Kirkpatrick, J.B. & Harwood, C.E. (1981). *The conservation of Tasmanian wetland macrophytic species and communities*. A Report to the Australian Heritage Commission from the Tasmanian Conservation Trust Inc., Hobart.

Kirkpatrick, J.B. & Harwood, C.E. (1983b). The conservation of Tasmanian macrophytic wetland vegetation. *Pap. Proc. R. Soc. Tas.* 117: 5-20.

Kirkpatrick, J.B. & Tyler, P.A. (1988). Tasmanian wetlands and their conservation. In: McComb, A.J. & Lake, P.S. (Eds.), *The conservation of Australian wetlands*, pp 1-16. Surrey Beatty & Sons Pty. Ltd., Sydney.

Sharpe, M. (1995). *Tasmanian wetlands listed under the Ramsar Convention*. Unpublished report; Department of Environment and Land Management, Hobart.

Tasmanian Fisheries (Scalefish) Rules 2004. www.thelaw.tas.gov.au

Threatened Species Unit. (2003). *Threatened Flora of Tasmania*. Nature Conservation Branch, Department of Primary Industries, Water and Environment, Hobart.

Wager, R. and Jackson, P. (1993). *The action plan for Australian freshwater fishes*. Australian Nature Conservation Agency, Canberra.

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