

Information Sheet on Ramsar Wetlands

Categories approved by Recommendation 4.7 of the Conference of the Contracting Parties.

1. Date this sheet was completed/updated:

1998

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Designation date

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Site Reference Number

2. Country:

Australia

3. Name of wetland:

Pittwater-Orielton Lagoon, Tasmania

4. Geographical coordinates:

Latitude: 42° 48'S; Longitude: 147° 30'E

5. Altitude:

The whole area is less than 20 metres above sea level

6. Area:

3175ha

7. Overview:

Pittwater-Orielton Lagoon comprises an estuarine system with a large area of saltmarsh. The area is an extensive and diverse wetland with abundant birdlife close to Hobart. Orielton Lagoon often contains large populations of waterbirds, and is considered to be a significant refuge in times of drought.

8. Wetland Type:

marine-coastal: A B C D E **F** **G** **H** I J K

inland: L **M** N O P **Q** **R** Sp Ss Tp Ts

U Va Vt W Xf Xp Y Zg Zk

man-made: 1 2 3 4 5 6 7 8 9

9. Ramsar Criteria:

1a 1b 1c 1d | **2a** **2b** 2c **2d** | 3a **3b** 3c | 4a 4b

Please specify the most significant criterion applicable to the site:

10. Map of site included? Please tick **yes** -or- **no**.

The map of this site is based on digital data from the Tasmanian 1:100 000 Topographic Map series. The Ramsar boundary has been extended to include a substantial area of Pittwater east of the Sorell causeway, sections of coastal reserve, and private land in the vicinity of the Coal River.

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

12. Justification of the criteria selected under point 9, on previous page.

13. General location:

On the south-east coast of Tasmania, approximately 20 kilometres east of the city of Hobart, between the towns of Sorell and Cambridge.

14. Physical features:

Pittwater is an almost land-locked body of tidal salt water with a narrow entrance to Fredrick Henry Bay. The area includes estuaries of four watercourses: Coal River and Sorell Rivulet into Pittwater, Orielson Rivulet into Orielson Lagoon and Iron Creek into Iron Creek Bay. The whole area is protected from the open sea by a large sand bar (Seven Mile Beach). The geology of the area is complex though dominated by Holocene river alluvium, silt, fine sand, dune and windblown sand with pockets of Triassic sandstone and shale.

Orielson Lagoon is separated from Pittwater by a causeway originally constructed in 1868 and modified in 1906 and 1953. This constricted broad tidal flow and created a shallow (1.25 metres deep) lagoon about 265 hectares in area. The average annual rainfall of the area is 500 - 625mm. Culverts have recently been built under the causeway, allowing freer water flow between Orielson Lagoon and Pittwater.

15. Hydrological values:

Wetland and saltmarsh areas probably play a significant role in reducing nutrient input from surrounding land.

The site has large areas of tidal mud and sand flats and a restricted tide flow through the mouth leaves extensive areas exposed as suitable feeding areas for wading birds.

16. Ecological features:

Most of the site area is open water fringed by saltmarsh communities and rocky shores. Extensive mudflats and saltmarsh areas are important habitat for wading birds and waterfowl. There are a number of saltmarsh communities which are significant in their own right; particularly in the north-west (north of Lands End) and surrounding Barilla Bay. Rocky shores constitute important habitat for seastars. The surrounding land to the north is mainly cleared for agricultural and residential development. To the south is Hobart Airport and Seven Mile Beach Protected Area.

17. Noteworthy flora:

The saltmarsh communities contain the following species considered to be at risk in Tasmania: *Lawrenzia spicata* and *Limonium australe* are rare Statewide and *Wilsonia humilis* is rare in the state and is not known to be securely reserved.

18. Noteworthy fauna:

The area is of global importance, as migratory birds from as far as the Arctic tundra stop at Pittwater, one of their major summer feeding ground in Tasmania.

Around the rocky shores of Pittwater and along the Sorell Causeway is the largest concentration of the small endemic sea-star *Patiriella vivipara* one of the few viviparous sea stars known.

The saltmarshes around Barilla Bay provide one of the few recorded Tasmanian localities of the rare chequered blue butterfly (*Theclinesthes serpentata*).

Orielson Lagoon is one of a few Tasmanian localities where great crested grebes are regularly seen.

19. Social and cultural values:

Community groups are involved in rehabilitation of Orielton Lagoon. There may be areas of significance to the Aboriginal community.

The area is becoming increasingly important for shell fish aquaculture production.

20. Land tenure/ownership:

The area is at present Crown Land under the jurisdiction of the Tasmanian Department of Environment and Land Management.

The draft plan will be revised following the submission of public comments, and the proposed final plan will then be forwarded to the State Minister.

21. Current land use:

(a) the site: fishing, aquaculture and boating.

(b) the surrounding area: residential, agricultural (mainly livestock grazing).

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

(a) the site:

- Continuing eutrophication.
- Proposed “improvements” by Sorell Municipal Council
- Subdivision on shore of Orielton Lagoon in the vicinity of Shark Point Road
- Increasing aquaculture operations in Pittwater
- Grazing and trampling of saltmarsh areas of stock
- Proposal to increase abstraction of water from the main tributary of upper Pittwater, the Coal River
- Increased irrigation activities in the drainage basin

(b) the surrounding area:

- Runoff from agriculture and effluent from residential developments, which in recent years has produced extreme eutrophication problems, including algal blooms in Orielton Lagoon.
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23. Conservation measures taken:

Hunting or disturbing wildlife in or over Orielton Lagoon is prohibited by wildlife regulations.

Three major areas of importance around the estuary have been declared Nature Reserves. Site has been listed on the East Asian-Australasian Shorebird Reserve Network.

Culverts recently built under the causeway have increased water circulation and thereby flush excess nutrients from the lagoon and stabilise salinities. This is associated with other measures planned to reduce eutrophication problems in the lagoon. The effectiveness of these measures is as yet uncertain.

24. Conservation measures proposed but not yet implemented:

A management plan has been written for the area but not yet implemented. The draft plan will be revised following the submission of public comments, and the proposed final plan will then be forwarded to the State Minister.

25. Current scientific research and facilities:

The University of Tasmania, and several government departments are currently undertaking research into the water quality and ecology of the area.

26. Current conservation education:

With close proximity to the city of Hobart, there is great potential for use of the wetland for conservation education.

There are plans to build bird hides on land NW of Orielton Lagoon as part of a community education program.

27. Current recreation and tourism:

Birdwatching is conducted in the area by Birds Tasmania. Other recreational activities undertaken in the area include fishing and windsurfing.

28. Jurisdiction:

Territorial: Sorell Municipal Council

Functional: Tasmanian Department of Environment and Land Management

29. Management authority:

Sorell Municipality

Tasmanian Department of Environment and Land Management, 134 Macquarie Street, Hobart, 7000.

30. Bibliographical references:

Departmental files (DELM, Tas)

Kinhill Engineers (1993) Orielton Lagoon and Catchment Environmental Remediation Plan Final Report. Unpublished report to Sorell Municipality.
