

**RAMSAR WETLANDS  
INFORMATION SHEET**

1. **Country:** New Zealand
2. **Date:** November 1992
3. **Ref** 5NZ001
4. **Name and address of compiler:**  
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Invercargill, NEW ZEALAND
5. **Name of wetland:** Waituna Wetlands Scientific Reserve
6. **Date of Ramsar designation** 13 August 1976
7. **Geographical coordinates:** 46°34'S, 168° 36'E
8. **General location: (e.g. administrative region and nearest large town)**  
In the province of South Island approximately 10.5km south east of the city of  
Invercargill, on the southern coast of the South Island.
9. **Area: (in hectares)**  
  
3,556 hectares approximately
10. **Wetland type: (see attached classification, also approved by Montreux Rec. C.4.7)**  
  
J, U, W, S, O, M, E H (also F and G when tidal)
11. **Altitude: (average and/or maximum & minimum)**  
  
The entire area lies between 0-3 and 1.5m OD (sea level)
12. **Overview: (general summary in two or three sentences of the wetland's principle characteristics)**  
  
The wetland contains the Waituna Lagoon along with adjacent peatlands, numerous ponds/lakes and coastline. The wetland consists of the Waituna Wetland Scientific Reserve which is Crown land managed by the Department of Conservation. The site is an important summer refuge and feeding area for many trans equatorial migratory waders. The reserve contains over 150 species of native plants, including montane and subalpine species which are otherwise confined to mountainous areas above 900m in the North Island.
13. **Physical features: (e.g. geology; geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth; water permanence; fluctuations in water level: tidal variations; catchment area; downstream area; climate)**  
  
The site comprises a lagoon and surrounding peat bog on the coastal margin of a glacio-fluvial plain of quartz rich gravels. Long shore drift of gravels has created a spit barrier behind which the lagoon has formed. By impeding drainage the spit has allowed the

development of thick peat deposits which extend several kilometres inland. The lagoon is artificially opened to the sea usually on an annual basis, and so is estuarine when the lagoon is open. The two largest streams are Waituna and Currans Creek, which have their source in the developed farmland to the north and flow throughout the year.

**14. Ecological features: (main habitats and vegetation types) The major habitats are:**

(a) Peatlands; this vegetation is governed by the height of the water table and drainage. The most extensive vegetation type is wire rush (*Empodisma minus*) with tangle fern (*Gleichenia dicarpa*), manuka (*Leptospermum scoparium*) and (*Dracophyllum longifolium* Better drained are dominated by (*Leptospermum scoparium*) shrublands or red tussock (*Chionochloa rubra*, local), with some stunted coastal rimu (*Dacrydium cupressinum*) forest. Low lying sites are generally dominated by sedges, rush and bryophytes with ponds or pools. One of the special features is a cushion-moor community containing many typically alpine or subalpine species. The wildlife in this area is not diverse but forms the South Island stronghold for Australasian bittern (*Botaurus poiciloptilus*; under threat in New Zealand) and South Island fernbird (*Bowdleria punctata ssp*). Southern black-backed gull (*Larus dominicanus*) breed in these areas.

(b) Waituna Lagoon, Ponds and Lakes; Waituna Lagoon is a different habitat when open to the sea and tidal to when it is closed and ponded. When open there are extensive tidal mudflats, which form an important summer wader habitat. A large number of wader species (including 18 species of trans equatorial waders) utilise the mudflats. Other waterfowl also utilise Waituna Lagoon as well as the numerous small ponds and lakes. In particular Waituna Lagoon is the principal black swan (*Cygnus atratus*) site and one of the most important grey duck (*Anas superciliosa*) site in South Island. There is a black shag (*Phalacrocorax carbo*) colony on one of the ponds. The lagoon is a trout fishery of some importance. Several types of lagoon edge vegetation are present - salt marsh and allied communities are extremely well developed in southeastern New Zealand.

(c) Gravel Coastal Beach; This contains a discontinuous vegetation of grasses, herbs and shrubs, most common being *Muehlenbeckia axillaris*, *Gentiana saxosa*, *Sedum acre* and *Poa cita*.

(d) Streams and waterways; sea run brown trout (*Salmo trutta*) are found in the Waituna Lagoon. The streams provide spawning grounds for brown trout and native fish. Populations of giant kokopu (*Galaxias argenteus*, status vulnerable), banded kokopu (*Galaxias fasciatus*, status vulnerable), inanga (*Galaxias maculatus*), long finned and short finned eels (*Anguilla dieffenbachii* and *A. australis*) as well as other estuarine and freshwater fish have been recorded.

**15. Land tenure/ownership of:**

(a) site: Crown land.

(b) surrounding areas: Largely multiple private land ownership, some local authority (South Island District Council) as formed and unformed legal road also Crown Land administered by Department of Conservation.

**16. Conservation measures taken: (national category and legal status of protected areas - including any boundary changes which have been made; management practices; whether an officially approved management plan exists and whether it has been implemented)**

The wetland which is Crown land was gazetted as a Scientific Reserve in 1983. Prior to this it was a Reserve for Wetland Management Purposes. It is managed by the Department of Conservation, South Island Conservancy in accordance with the draft management plan. Entry to the reserve is not restricted, but there is limited hut accommodation. Marked routes and the relative isolation and difficulty of access ensure minimum disturbance. The lagoon is artificially opened to the sea on an annual basis and so is estuarine when open. No other management actions have been required on site within the wetland, although monitoring continues on lagoon levels, effects of past fires and the impact of nesting gulls on the cushion bog vegetation.

The WERI (Wetlands of Ecological and Representative Importance) database gives the wetland a ranking of international importance.

**17. Conservation measures proposed but not yet implemented: (e.g. management plan in preparation; officially proposed as a protected area etc.)**

There is a draft management plan, however this has not been approved.

**18. Current land use: principal human activities in:**

- (a) site: Conservation of flora and fauna, protection of wildlife are the primary use of the wetland. Other uses are sport fishing (for brown trout) and game bird shooting.
- (b) surrounding/catchments: Much of the surrounding area (particularly to the north) is used for pastoral agriculture. There are adjacent undeveloped peatlands.

**19. Disturbances/threats, including changes in land use and major development projects: (factors which may have a negative impact on the ecological character of the wetland)**

- (a) at the site: Fires will continue to be a threat (there have been several large fires in recent years).

Drainage of adjacent areas.

Due to periodic blocking of the sea outlet, the lagoon is subject to considerable fluctuations in water level. When blocked during periods of high rainfall the water floods back into marginal vegetation. This is a desirable feature for many of the reserve's botanical features which remain because of the occasional flooding of areas and maintenance of a high water table. If this occurs during July-November it can stimulate the breeding activity of black swan to a marked degree. However, it can also be detrimental for other species such as waders, as the mudflats used for feeding are not exposed, or the small islands favoured as nesting sites for tern, oystercatcher and stilt are submerged. Blocking of the inlet also causes drainage problems on some farms close to the lagoon, so a management regime exists whereby the bar is artificially opened to the sea periodically. When tidal conditions prevail,

some drying out of marginal vegetation occurs and gorse (*Ulex europaeus*, a weed species) spreads having some detrimental effect on the native vegetation.

**19. Disturbances/threats, including changes in land use and major development projects (cont'd):**

Weed species, gorse (*Ulex europaeus*), broom (*Cytisus scoparius*) and spanish heath (*Erica lusitanica*) are found in peripheral areas and are spreading within the wetland.

(b) in the surroundings/catchment: An intensification of land use including draining, ploughing and sowing grass. This will influence water quality.

The reserve lies near (and possibly over) extensive lignite coal fields (the Ashers-Waituna field). There are no plans to expand lignite mining operations in the locality and currently there is no direct threat to the Scientific Reserve. The effects of mining on water quality is a separate factor and could be a threat.

**20. Hydrological and physical values: (groundwater recharge, flood control, sediment trapping, shoreline stabilization etc.)**

The wetland is fed by a combination of direct rainfall and by streams passing through the wetland to the coast. These streams drain into the Waituna Lagoon which traps sediment. The wetland plays a general role in the recharge and discharge of groundwater, the maintenance of water quality. It is of great importance in supporting aquatic and terrestrial food chains -

**21. Social and cultural values: (e.g. fisheries production, forestry, religious importance, archaeological site etc.)**

The area was traditionally utilised by the local Maori people. This use was largely as a food source (especially fish) and centred on Waituna Lagoon. Waituna lagoon is a popular brown trout fishing area. In the past some commercial eel fishing occurred at the lagoon.

**22. Noteworthy fauna: (e.g. unique, rare, endangered, abundant or biogeographically important species; include count data etc.)**

A total of 76 bird species have been recorded. A particular feature being the diversity of migratory wader species associated with the lagoon. These include 18 species of trans equatorial waders species, the most abundant being turnstone (*Arenaria interpres interpres*), Eastern bar-tailed godwit (*Limosa lapponica baueri*), lesser knot (*Calidris canutus canutus*), red-necked stint (*Calidris ruficollis*; Rare in New Zealand), far eastern curlew (*Numenius madagascariensis*; rare in New Zealand), Pacific golden plover (*Pluvialis fulva*; Rare in New Zealand) and sandpipers (*Calidris spp.*; Some are rare in New Zealand). A significant feature is the number migratory waders which are considered rare visitors in New Zealand which visit the wetland, these include the grey plover (*Pluvialis squatarola*), Mongolian dotterel (*Charadrius mongolus*), marsh sandpiper (*Tringa stagnatilis*), sanderling (*Calidris alba*) and Asiatic whimbrel (*Numenius phaeopus variegatus*).

These peatlands are the South Island stronghold for several wetlands birds including Australasian bittern (*Botaurus stellaris poiciloptilus*; under threat in New Zealand), South Island

Fernbird (*Bowdleria punctata punctata*; endemic, status: regionally vulnerable), spotless crane (*Porzana tabuensis plumbea*) and marsh crane (*Porzana pusilla affinis*; endemic subspecies).

Breeding birds include black shag or great cormorant (*Phalacrocorax carbo novaehollandiae*), little shag or little pied cormorant (*Phalacrocorax melanoleucos brevirostris*), white-faced heron (*Ardea novaehollandiae*), black swan (*Cygnus atratus*), paradise shelduck (*Tadorna variegata*; endemic), pukeko or purple swamp hen (*Porphyrio porphyrio melanotus*), South Island pied oystercatcher (*Haematopus ostrale gus finschi*; endemic subspecies) and variable oystercatcher (*Haematopus unicolor*; endemic, status: rare), banded dotterel (*Charadrius bicinctus bicinctus*; endemic, status: vulnerable), Australasian pied stilt (*Himantopus himantopus*), southern black backed gull (*Larus dominicanus*), black-billed (endemic) and red-billed gulls (*Larus spp.*), Caspian tern (*Hydroprogne caspia*), and white-fronted tern (*Sterna striata*). The lagoon is the principal black swan habitat in the southern part of the South Island, and is one of the most important remaining grey duck localities in the far south. It is also an important moulting refuge for New Zealand shoveler (*Anas rhynchosotis variegata*; endemic subspecies).

White heron (*Egretta alba modesta*; Rare in New Zealand, only one known breeding location at Okarito), royal spoonbill (*Platalea leucorodia regia*; Rare in New Zealand), grey teal (*Anas gibberifrons gracilis*), New Zealand dotterel (*Charadrius obscurus*; endemic, status: vulnerable) are regular visitors that use this wetland.

Amongst the rich diversity of native fish species using the area are giant kokopu (*Galaxias argenteus*; endemic, status vulnerable) and banded kokopu (*Galaxias fasciatus*; endemic, status vulnerable), inanga (*Galaxias maculatus*; endemic), long finned and short finned eels (*Anguilla dieffenbachii* and *A. australis*).

There is a rich diversity of entomological life. In all, over 80 species of moth alone have been found in the Awarua Bay/Waituna wetlands complex. As with the flora many of the insects are typically subalpine species. The area is the type locality for a number of species of moth, some of which are not known to occur elsewhere.

### **23. Noteworthy flora: (e.g. unique, rare, endangered, or biogeographically important species/communities etc.)**

The flora is very diverse and highly representative of Southern South Island and coastal peatland communities. There is a diversity of intact plant communities and sequences which illustrate the variations dependant upon the water table.

The reserve is also important for its unique moorlike vegetation (cushion bogs) characterised by herbs and shrubs adapted to cold peaty conditions, some of these species are more typically found in montane or subalpine conditions and not at sea level. These include the cushion plants *Donatia novae-zealandiae* and *Oreobolus pectinatus*, along with *Gentiana lineata* and *Actinotus novaezealandiae*, the sundews (*Drosera spp.*), grass lily (*Oreostylidium subulatum*) and comb sedge (*Cyperus alpinus*). The coastal vegetation includes the white-flowered shore gentian (*Gentiana saxosa*) which can form dense turf with *Selliera*. Interesting features of the sand ridge include the presence of pingao (*Desmoschoenus spiralis*; endemic, status:threatened) and coastal tussock (*Austrofestuca littoralis*) along with a locally uncommon species of mat-daisy (*Raoulia spp.*). Altogether the coastal vegetation is a striking feature of the area, and forms a distinct assemblage not found north of South Island.

### **31. Map of site: (please enclose the most detailed and up-to-date map available - preferably at least 1:25,000 or 1:50,000)**

**24. Current scientific research and facilities: (e.g. details of current projects; existence of field station etc.)**

Scientific Research is largely undertaken on an ad hoc basis and is issue driven. There is on-going monitoring of the effects of a southern black backed gull colony on wetland (cushion bog) vegetation. Studies underway are on the geomorphic history and contemporary dynamics of the barrier and lagoon systems. There are also bi-annual wading bird counts undertaken at Waituna Lagoon by the Ornithological Society of New Zealand. Monitoring of the recovery of vegetation after fire is being carried out on the adjacent Seaward Moss wetland area.

**25. Current conservation education: (e.g. visitor centers, hides, information booklet, facilities for school visits etc.)**

Currently there is limited conservation education use, because of a lack of board walk, tracks, interpretation material or other facilities. The wetland is an important part of the Department of Conservation, summer visitor programme.

**26. Recreation and tourism: (state if wetland used for recreation/tourism; indicate type & frequency/intensity)**

There is limited recreational use, reflecting the limited hut accommodation and marked routes, and the relative isolation of the site and difficulty of access. The major activities are duck hunting and trout fishing (both seasonal) with some day walking, bird watching, nature photography and botanizing.

**27. Management authority: (name and address of body responsible for managing the wetland)**

Resource Consents: The South Island Regional Council has statutory responsibilities under the Resource Management Act 1991 for water resources and the preparation of coastal plans.

Management of Crown land and wildlife: Department of Conservation, South Island Conservancy, PO Box 743, Invercargill, NEW ZEALAND.

Management of sports fish (trout/salmon) and game bird hunting season and licences: The South Island Fish and Game Council. The Fish and Game Council sets quota (bag limits/catch limits) for the game/fishing season; sets the time of the game/fishing season; sets the methods of hunting/fishing; issues game hunting/fishing licences; and carries out enforcement in relation to these functions.

**28. Jurisdiction: (territorial e.g. state/region and functional e.g. Dept of Agriculture/Dept of Environment etc.)**

**Territorial:** South Island District Council South Island Regional Council

**31. Map of site: (please enclose the most detailed and up-to-date map available - preferably at least 1:25,000 or 1:50,000)**

**Functional:** Department of Conservation, South Island Conservancy South Island Fish and Game Council

**29. Bibliographical references: (scientific/technical only)**

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- Stephenson, G (1986). Wetlands, Discovering New Zealand's Shy Places. Government Printing Office, Wellington.
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**30. Reasons for inclusion:** (state which Ramsar criteria - as adopted by Rec.C.4.15 of the Moutreux Conference - are applicable)

1(a)

Waituna Wetlands Scientific Reserve contains a wetland type rare in New Zealand -cushion bog (moorlike) vegetation occurring at sea level. This vegetation is characterised by species adapted to cold peaty conditions, some of these species are more typically found in montane or subalpine conditions and not at sea level.

1(b)

Waituna Wetland is a good representative example of a lagoon with associated lagoon edge

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vegetation such as saltmarsh. This is a wetland type characteristic of New Zealand.

1(d)

Waituna Wetland is part of a complex of estuaries and lagoons in the South Island area which provide important habitat for migratory waders (both international and internal) visiting the far south of New Zealand.

2(a)

Waituna Wetland supports an appreciable assemblage of threatened species, including:

- fish:                   giant kokopu (*Galaxias argenteus*; endemic, status vulnerable)  
                          banded kokopu (*Galaxias fasciatus*; endemic, status vulnerable)
- birds:                 variable oystercatcher (*Haematopus unicolor*; endemic, status: rare)  
                          banded dotterel (*Charadrius bicinctus bicinctus*; endemic, status: vulnerable)  
                          New Zealand dotterel (*Charadrius obscurus*; endemic, status: vulnerable)
- plant:                 pingao (*Desmoschoenus spiralis*; endemic, status:threatened)

2(b)

The area is of special value for maintaining the genetic and ecological diversity of the region, because of:

The diversity of bird life - 76 species have been recorded including international and internal migratory waders.

The diversity of native fish species, including giant kokopu (*Galaxias argenteus*; endemic, status vulnerable) and banded kokopu (*Galaxias fasciatus*; endemic, status vulnerable), inanga (*Galaxias maculatus*; endemic), long finned and short finned eels (*Anguilla dieffenbachii* and *A. australis*).

The rich diversity of entomological life. Over 80 species of moth alone have been found in the Awarua Bay/Waituna wetlands complex. Many of the insects are typically subalpine species. The area is the type locality for a number of species of moth, some of which are not known to occur elsewhere.

The diverse flora of the area including the presence of plant species in the cushion bog vegetation typically found in montane or subalpine conditions, found here at sea level. The interesting sand ridge plant associations (pingao (threatened), coastal tussock and locally uncommon species of mat-daisy).

2(c) Waituna Wetland is of special value as the habitat of plants and animals at a critical stage of their biological cycles, including:

- birds:   all migratory birds that use the wetland and a feeding and resting area black swan  
          grey duck New Zealand shoveler
- fish:    giant kokopu (*Galaxias argenteus*; endemic, status vulnerable) banded kokopu

**31. Map of site:** (please enclose the most detailed and up-to-date map available - preferably at least 1:25,000 or 1:50,000)



(*Galaxias fasciatus*; endemic, status vulnerable)  
inverts. moths endemic to the area  
plant: pingao

**2(d)** Waituna wetland is of special value for endemic species and communities, including:

fish: giant kokopu (*Galaxias argenteus*; endemic, status vulnerable) banded kokopu (*Galaxias fasciatus*; endemic, status vulnerable)  
birds: variable oystercatcher (*Haematopus unicolor*; endemic, status: rare) banded dotterel (*Charadrius bicinctus bicinctus*; endemic, status: vulnerable) New Zealand dotterel (*Charadrius obscurus*; endemic, status: vulnerable) South Island Fernbird (*Bowdleria punctata punctata*; endemic, status: regionally vulnerable) marsh crake (*Porzana pusilla affinis*; endemic subspecies). paradise shelduck (*Tadorna variegata*; endemic) South Island pied oystercatcher (*Haematopus ostralegus finschi*; endemic subspecies) black-billed gull (*Larus bulleri*; endemic) New Zealand shoveler (*Anas rhynchotis variegata*; endemic subspecies)  
invertebrate a number of species of moth not known to occur elsewhere  
plant pingao (*Desmoschoenus spiralis*; endemic, status:threatened)

**3(b)** The wetland regularly supports substantial numbers of individuals from particular

groups of waterfowl, including:

black swan - principal habitat in the southern part of the South Island of New Zealand  
grey duck - most important remaining locality in the far south New Zealand  
shoveler - important moulting refuge