

TIMARU DISTRICT
SIGNIFICANT NATURAL AREAS
SURVEY

MILLAR PROPERTY



Report prepared for Timaru District Council
by
Mike Harding and Mark Davis
April 2012

TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

PROPERTY REPORT

PROPERTY DETAILS:

Owner: AW Millar
Valuation References: 24710/110.00
Address: Parke Road, Temuka 7986.
Location:..... North of Orari River mouth, South Canterbury coast.
Ecological District:..... Low Plains Ecological District.
TDC Land Type:..... 'Plains'
Land Environment: N1.2c (eastern South Island plains).

ECOLOGICAL CONTEXT:

The property covers gently sloping, low-lying land on the South Canterbury coast east of Temuka and adjacent to 'Duck Island'. The property lies in Low Plains Ecological District.

It is likely that the original vegetation of this area was predominantly wetland and coastal (dune) vegetation adjacent to the stream/lagoon, grading inland to grassland, wetland, treeland or forest, depending on disturbance history. Widespread loss of indigenous vegetation in this part of Timaru District makes it difficult to determine the precise nature of the original vegetation. The area described in this report was presumably once part of an old river or stream channel.

The adjacent lagoon/wetland ('Duck Island') is an important area of open water and wetland habitat on the South Canterbury coast. A detailed survey of indigenous fauna was not possible during this survey, though the coastal lagoon and adjacent wetland are likely to provide regionally important habitat for migratory, wading and coastal birds.

SIGNIFICANT AREAS ON THE PROPERTY:

Indigenous vegetation and habitat on the property comprises areas of rushland and other wetland vegetation at the lagoon margins and at other nearby low-lying sites. This vegetation and habitat is an integral part of a larger area of lagoon and wetland vegetation and habitat that includes Crown (presumably UCL) and adjacent land at 'Duck Island'. It also lies adjacent to Crown land along its coastal margin.

The property was surveyed as part of the District-wide survey of Significant Natural Areas by ecologist Mark Davis during February 2012. One area (SNA 742a) is regarded as a Significant Natural Area (SNA) when assessed against the District Plan criteria. This area includes parts of the lagoon/wetland that lie on adjacent land.

This SNA is illustrated on the attached aerial photograph and described in greater detail on the SNA Form in this report. Note that the boundaries of the SNA are indicative, rather than precise. This area meets the ecological criteria in the Timaru District Plan (criteria i-vi, pages B18-B19) and is considered to be sustainable in the long term, or sustainable with appropriate management (criterion vii, page B19). SNAs are subject to confirmation by Council after regarding the matters listed in the District Plan (pages B19-B20). It is expected that SNAs will eventually be listed in the District Plan by way of a notified plan change.

At present, consent is required from Council for clearance of areas of indigenous vegetation or habitat which meet the Interim Definitions in the District Plan. Clearance includes draining, burning, spraying with herbicides and over-planting. SNAs encompass most, but not necessarily all, areas of vegetation and habitat which meet the Interim Definitions.

To assist with the protection and management of any SNA, landowners can apply to Council for financial assistance. Any questions regarding the protection, management and use of SNAs should be directed to the District Planner.

Millar Property
24710/110.00
24710/096.00

742a

1:5,000



TIMARU DISTRICT SNA SURVEY

SNA 742a

Area Name: Millar Wetland
Location (NZMS 260): 2384318-5663226
Ecological District: Low Plains
Surveyors: Markus Davis

Property: AW Millar
Nearest Locality: Clandeboyne
Area Size (ha): 1.2 **Altitude (m):** 3m
Survey Time: 2 hours **Survey Date:** 03-02-12
and 15-02-12

General Description:

This Significant Natural Area (SNA) lies on the South Canterbury coast, north of the Orari River mouth. It lies adjacent to areas of open water (lagoon) in an old river meander that is presumably Crown land. On the other side of the lagoon, adjacent to the coast, is an area known locally as 'Duck Island' (SNA 742b). The SNA is bordered on its inland margin by intensively-grazed pasture.

Plant Communities:

The SNA comprises a patchy mosaic of wetland vegetation within pasture dominated by exotic grasses. The main plant communities are described below. Naturalised (exotic) species are indicated with an asterisk*.

While some areas are dominated by species such as Yorkshire fog*, crested dogtail*, ryegrass*, white clover* and lotus*, other areas support good patches of *Juncus edgariae*, *Carex flagellifera*, jointed rush* and less commonly soft rush*. Closer to the lagoon *Juncus edgariae* and *Carex geminata* are the dominant plants, with prominent tall fescue*, *Carex virgata*, *Carex flagellifera* and *Carex sinclairii*. *Carex geminata* occurs in a drain here with some reed canary grass*, *Carex secta* (rare) and a few crack willow* trees.



Extensive cover of Juncus edgariae, Carex geminata and tall fescue northeast of the lagoon

The margin of the lagoon, adjacent to the property, supports a small patch of raupo, scattered flax, *Carex virgata*, *Juncus edgariae*, a little reed canary grass* and other exotic grasses and herbs. A large patch of gorse* and scattered elderberry* are also present. There appears to be a shoreline herbfield on its western side, but this was not inspected closely.

Birds/Fauna Observed:

A substantial number of paradise duck, other ducks and black swans were observed in the lagoon, and ducks were also seen in drains. Spur-winged plover were observed in a paddock near the wetland.

Notable Flora, Fauna and Habitats:

This SNA lies within an area where indigenous vegetation and habitat has been substantially reduced. The area is an acutely-threatened land environment and wetlands are regarded as nationally rare ecosystems. While the vegetation of this SNA is depleted, it still contributes to the wetland and lagoon values. Indigenous fauna were not surveyed, though areas of wetland and open-water on this coastline provide critically important habitat for indigenous bird species. Katipo spiders occur in similar dune habitats nearby and may be present in dune habitats on the property.

Notable Plant and Animal Pests:

Important plant pests present are crack willow, gorse and reed canary grass. No animal pests were observed.

Boundaries (buffering, fencing, adjoining plant communities and habitats):

The SNA is defined by the poorly-drained areas that support (or normally support) wetland vegetation. It is not well buffered and is affected by cattle grazing. If the surrounding paddock was carefully managed, wetland vegetation would recover and the lagoon would be more effectively buffered.

Condition and Management Issues:

Some of the wetland vegetation is currently in good condition, though would be damaged by cattle grazing. Some plant pest control would improve wetland vegetation values. It should be possible to manage crack willow effectively, as there are not many near the lagoon. Similarly reed canary grass appears to be restricted to a drain. Gorse could also be readily controlled.

Property Owner Comment:

Mr Millar is interested in providing better protection for the main area of wetland vegetation, perhaps by fencing.

ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:

Primary Criteria	Rank	Notes
Representativeness	L/M	The wetland vegetation is moderately representative.
Rarity	M/H	Lies in an acutely-threatened land environment; wetlands are a nationally rare ecosystem.
Diversity and pattern	L/M	Limited diversity and pattern of wetland vegetation, though with potential to recover.
Distinctiveness/special features	M	This area is linked to and is an important part of the adjacent lagoon and 'Duck Island' habitat.
Other Criteria		
Size/shape	M/H	A moderate sized area, though not well buffered.
Connectivity	M	Connected to the lagoon and 'Duck Island'.
Long-term Sustainability	M	Ecological values are likely to decline further unless grazing is restricted and plant pests controlled.

Final Consideration (of other matters: Section D, page B-19 of Timaru District Plan):

Remnant indigenous vegetation and habitat in this area have good potential for recovery. While the SNA could be developed further for farming purposes it is always likely to be affected by high ground water levels. Ideally, a larger area should be protected from grazing (especially cattle grazing) so that wetland vegetation can recover and eventually provide higher-quality bird habitat and a more effective buffer to the lagoon.

Discussion:

This area only just meets the District Plan criteria for a Significant Natural Area. Important values are that it lies in an acutely threatened land environment and that it supports a nationally rare ecosystem (wetland vegetation). It is part of a larger area of habitat that is likely to be important for indigenous bird species.

Scientific names of species cited by common name in this report

(Note: this is not a complete species list; it is a list only of species cited by common name in this report)

Common Name Scientific name

(* = naturalised species)

bachelor's button	<i>Cotula coronopifolia</i>
browntop*	<i>Agrostis capillaris</i>
cocksfoot*	<i>Dactylis glomerata</i>
crack willow*	<i>Salix fragilis</i>
crested dogstail*	<i>Cynosurus cristatus</i>
curled dock*	<i>Rumex crispus</i>
elderberry*	<i>Sambucus nigra</i>
flax	<i>Phormium tenax</i>
gorse*	<i>Ulex europaeus</i>
jointed rush*	<i>Juncus articulatus</i>
lotus*	<i>Lotus pedunculatus</i>
monkey musk*	<i>Mimulus guttatus</i>
raupo	<i>Typha orientalis</i>
reed canary grass*	<i>Phalaris arundinacea</i>
ryegrass*	<i>Lolium perenne</i>
soft rush*	<i>Juncus effusus</i>
spike sedge	<i>Eleocharis acuta</i>
starwort*	<i>Callitriche stagnalis</i>
tall fescue*	<i>Schedonorus phoenix</i>
toad rush*	<i>Juncus bufonius</i>
watercress*	<i>Rorippa microphylla</i>
white clover*	<i>Trifolium repens</i>
Yorkshire fog*	<i>Holcus lanatus</i>