

TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

PROPERTY REPORT

PROPERTY DETAILS:

Owner: JV Nicholas
Valuation References: 24710/111.00
Address: Seadown, RD3, Timaru 7973.
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 known as '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. 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 is adjacent to what was presumably once an old river or stream channel.

The adjacent lagoon 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 vegetation 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 grassland and wetland vegetation at the lagoon margins and on the rear dune. This vegetation and habitat is an integral part of a larger area of lagoon and wetland vegetation and habitat that includes Crown (presumably UCL) land. 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 742b) 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.

Dunes adjacent to the SNA, though dominated by marram grass, are likely to provide useful habitat for indigenous fauna.



A dune blowout dominated by marram grass, shore bindweed and driftwood.*

Nicholas Property
24710/111.00

742b

1:5,000



TIMARU DISTRICT SNA SURVEY

SNA 742b

Area Name: Duck Island
Location (NZMS 260): 2384328-5663096
Ecological District: Low Plains
Surveyors: Mark Davis

Property: JV Nicholas
Nearest Locality: Clandeboye
Area Size (ha): 2.1 **Altitude (m):** 3
Survey Time: 1¼ hour **Survey Date:** 03-02-12

General Description:

This SNA comprises part of the property known as Duck Island. It lies on the coastal (southeast) side of an old channel of the Orari River, north of the existing river mouth. The open water channel is presumably Crown land and separates the SNA from other vegetation and habitat (SNA 742a) on an adjacent property.

Plant Communities:

Two main plant communities or habitats occur in the SNA and these are described below. Naturalised (exotic) species are indicated with an asterisk*.

Grassland

The land immediately behind the dunes is dominated by exotic grasses including tall fescue*, tall oat grass* and creeping bent*. Also present are Californian thistle*, lotus*, scattered gorse*, saltmarsh ribbonwood (rare) and oioi. A low lying channel is dominated by herbs (see below) but the north side of it is strongly dominated by reed canary grass* which forms a dense spongy thicket. Toetoe and raupo occupy the lagoon edge. Local patches of *Juncus edgariae* also occur in depressions or channels among the grassland. Reed canary grass* is so dense that it excludes most other species. One crack willow* tree is present at the northeast margin.



Extensive grassland dominated by tall fescue, with toetoe at its margin*

Willow* trees (mostly crack willow*) are scattered though the northwest and west parts of the grassland. Some of this vegetation, including *Carex secta*, flax, saltmarsh ribbonwood, oioi and bittersweet*, are on the adjacent Crown land.



Herbfield dominated by willow weed, with Bolboschoenus caldwellii and adjacent toetoe.*

Herbfield

The larger channels among the grassland and the low-lying area to the east are characterised by an exotic-dominated herbfield. At the time of survey they were damp, but may be covered by water at times. These habitats are dominated by willow weed* with a range of other plants including three square, creeping bent*, marsh foxtail*, *Bolboschoenus caldwellii*, bachelor's button, *Centipeda cunninghamii*, water speedwell*, monkey musk* and broad-leaved plantain*. A ribbon of toetoe occurs on the southern margin, while patches of *Carex geminata* and scattered flax occur on the northern margin.

Birds/Fauna Observed:

One pukeko was seen on the property. A substantial number of waterfowl and black swans were seen on the nearby lagoon.

Notable Flora, Fauna and Habitats:

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

Notable Plant and Animal Pests:

Important plant pests present are willows*, gorse*, reed canary grass*, marsh foxtail* and tree lupin*. Bittersweet* is common adjacent to the western margin of the property. No animal pests were seen.

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

The SNA adjoins the lagoon (presumably Crown land) at its inland boundary and the dunes and open beach at its coastal boundary. The lagoon is not fenced from grazing, though the extent to which the SNA is grazed is unclear. The SNA buffers the lagoon from the foreshore.

Condition and Management Issues:

The wetland and grassland communities are generally very weedy. Despite that, the property fulfils an important buffering function for the lagoon as well as providing habitat for pukeko and other waterbirds where it adjoins the lagoon. Habitat values may decline further if weeds were to spread, and in this regard controlling key weeds such as willows* and reed canary grass* would be beneficial.

Property Owner Comment:

Mr Nicholas values the area as habitat for ducks. He has no intention of changing or developing the area.

ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:

Primary Criteria	Rank	Notes
Representativeness	L/M	The vegetation is only partly representative and is modified by the dominance of exotic plants.
Rarity	M/H	The SNA lies in an acutely-threatened land environment. Wetlands and dunes are nationally rare ecosystems.
Diversity and pattern	L/M	Species diversity is low.
Distinctiveness/special features	M	Is part of an area of important coastal/wetland habitat for indigenous fauna.
Other Criteria		
Size/shape	H	A relatively large area for Low Plains ED and with a compact shape; buffered by lagoon and beach.
Connectivity	M/H	Closely linked with the lagoon, and links the lagoon and wetland habitat to the foreshore.
Long-term Sustainability	M/H	Maintenance of ecological values will probably require restrictions on grazing and some plant pest control.

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. This area has very little potential for development for farming purposes. Ideally, this and adjacent areas should be protected from grazing (especially cattle grazing) so that vegetation can recover and eventually provide higher-quality bird habitat and a more effective buffer to the lagoon.

Discussion:

This area 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>
bittersweet*	<i>Solanum dulcamara</i>
broad-leaved plantain*	<i>Plantago major</i>
broom*	<i>Cytisus scoparius</i>
Californian thistle*	<i>Cirsium arvense</i>
catsear*	<i>Hypochoeris radicata</i>
crack willow*	<i>Salix fragilis</i>
creeping bent*	<i>Agrostis stolonifera</i>
flax	<i>Phormium tenax</i>
gorse*	<i>Ulex europaeus</i>
lotus*	<i>Lotus pedunculatus</i>
marram grass*	<i>Ammophila arenaria</i>
marsh foxtail*	<i>Alepecurus geniculatis</i>
monkey musk*	<i>Mimulus guttatus</i>
oioi	<i>Leptocarpus similis</i>
raupo	<i>Typha orientalis</i>
reed canary grass*	<i>Phalaris arundinacea</i>
saltmarsh ribbonwood	<i>Plagianthus divaricatus</i>
shore bindweed	<i>Calystegia soldanella</i>
sow thistle*	<i>Sonchus oleraceus</i>
tall fescue*	<i>Schedonorus phoenix</i>
tall oat grass*	<i>Arrhenatherum elatius</i>
three-square*	<i>Schoenoplectus pungens</i>
toetoe.....	<i>Cortaderia richardii</i>
tree lupin*	<i>Lupinus arboreus</i>
water speedwell*	<i>Veronica anagallis-aquatica</i>
willow weed*	<i>Polygonum persicaria</i>