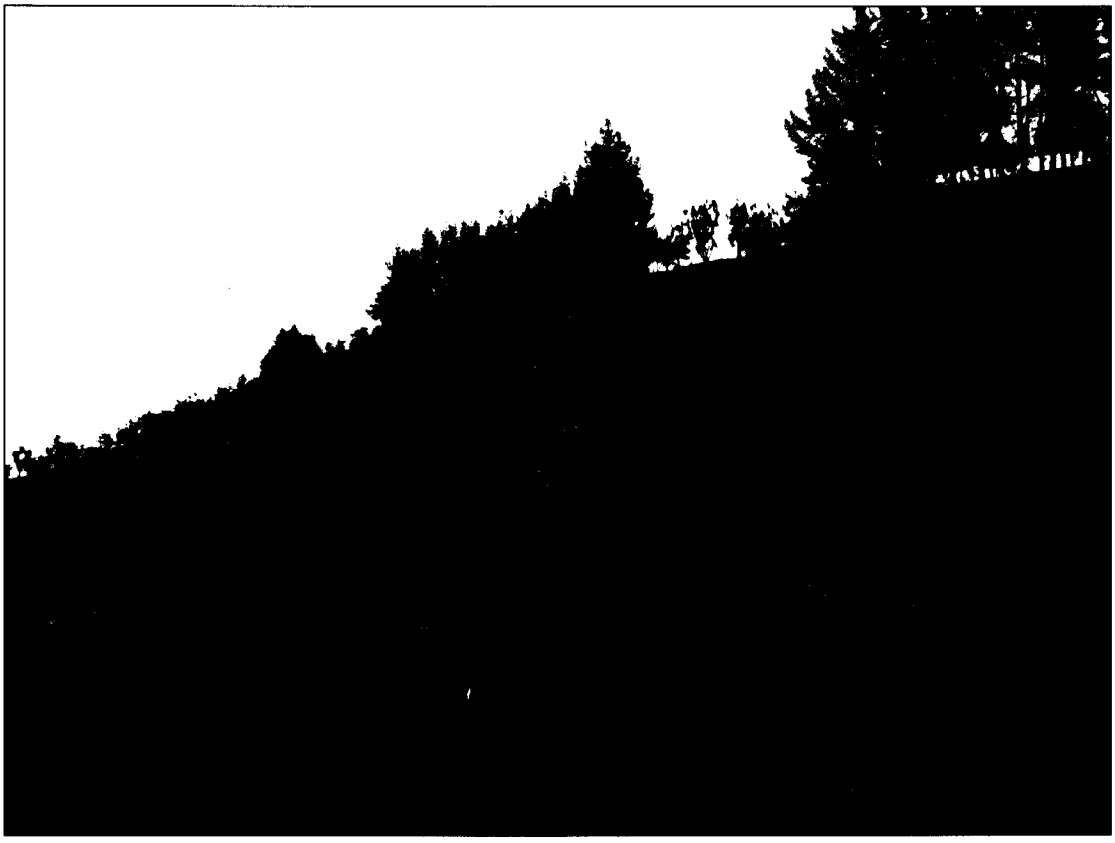
TIMARU DISTRICT

SIGNIFICANT NATURAL AREAS SURVEY

TALBOT PROPERTY



Report prepared for Timaru District Council by Mike Harding
September 2011

TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

PROPERTY REPORT

PROPERTY DETAILS:

Owner: ..... Graham and Suzanne Talbot
Valuation References: 24850/020.04
Address: ..... 44 Taiko Road.
Location:..... On the east side of Taiko Valley, southeast of Taiko Flat.
Ecological District:..... Waimate Ecological District.
TDC Land Type:..... 'Soft Rock Hills and Downs'
Land Environment: ..... N3 (eastern South Island undulating plains and hills).

ECOLOGICAL CONTEXT:

The property covers moderately steep slopes between 150 and 280m on the western edge of the Timaru Downs. The property lies in Waimate Ecological District.

It is likely that the original vegetation of this area was predominantly podocarp-hardwood forest, dominated by matai and totara. Shrubland, treeland and tussockland may have occupied steeper slopes and disturbed sites. Rock bluffs supported specialised flora, including kowhai, and riparian areas supported wetland vegetation and mixed hardwood forest.

Today the original forest cover of Waimate Ecological District, within Timaru District, is largely confined to remnants in gullies on Cave Hill and Mt Horrible (including Claremont Scenic Reserve), and on basalt and limestone slopes in the Taiko and Limestone valleys. Otherwise, the indigenous vegetation of this part of the ecological district is substantially depleted or modified. The indigenous fauna would have originally been significantly more numerous and diverse, with a greater range of birds, lizards and invertebrates than is presently found in the area.

SIGNIFICANT AREAS ON THE PROPERTY:

Indigenous vegetation on the property comprises one small patch of hardwood forest, more extensive areas of treeland, and sparse rockland and boulderfield vegetation on steeper slopes. The property lies near to areas of forest and shrubland on adjoining properties, contributing to the network of fauna habitat in the wider area.

The property was surveyed as part of the District-wide survey of Significant Natural Areas during August 2011. Four small areas, comprising approximately 2.5 hectares, are regarded as Significant Natural Areas (SNAs) when assessed against the District Plan criteria. These SNAs are listed in the table below.

Area No.	Area Name	Central grid reference	Aprox. size (ha)	Vegetation/habitat type
144a		J39: 567-463	0.07	Treeland and boulderfield.
144b		J39: 567-462	0.36	Treeland and boulderfield.
144c		J39: 567-460	0.97	Treeland and boulderfield.
147d		J39: 565-464	1.06	Forest, treeland, rockland/boulderfield.

These SNAs are illustrated on the attached aerial photograph and described in greater detail on the SNA Forms in this report. Note that the boundaries of the SNAs are indicative, rather than precise. These areas meet the ecological criteria in the Timaru District Plan (criteria i-vi, pages B18-B19) and are 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 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.

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 (* = naturalised species)	Scientific name
black nightshade*	*Solanum nigrum*
cabbage tree/ti rakau	*Cordyline australis*
cleavers*	*Galium aparine*
cocksfoot*	*Dactylis glomerata*
common shield fern	*Polystichum richardii*
creeping buttercup*	*Ranunculus repens*
dandelion*	*Taraxacum officinale*
field speedwell*	*Veronica arvensis*
foxglove*	*Digitalis purpurea*
gooseberry*	*Ribes uva-crispa*
gorse*	*Ulex europaeus*
hairy pennywort	*Hydrocotyle moschata*
hawksbeard*	*Crepis capillaris*
horehound*	*Marrubium vulgare*
kowhai	*Sophora microphylla*
mahoe/whiteywood	*Melicytus ramiflorus*
matai/black pine	*Prumnopitys taxifolia*
mouse-ear chickweed*	*Cerastium fontanum*
necklace fern	*Asplenium flabellifolium*
nodding thistle*	*Carduus nutans*
pearlwort*	*Sagina procumbens*
pennywort	*Hydrocotyle novae-zelandiae*
porcupine shrub	*Melicytus alpinus*
sheep's sorrel*	*Rumex acetosella*
totara	*Podocarpus totara*
woolly mullein*	*Verbascum thapsus*
yarrow*	*Achillea millefolium*


N
Talbot Property
24850/020.04
Cliffs Road
147d
144a
144b
144c
Tailko Road
Meters
0
100
200
300
400
500
1:5,000

TIMARU DISTRICT SNA SURVEY — SNAs 144a, b and c

Area Name:
Ecological District: Waimate
SNA 144a: Location (central map ref.): J39: 567-463
SNA 144b: Location (central map ref.): J39: 567-462
SNA 144c: Location (central map ref.): J39: 567-460
Surveyors: Mike Harding

Property: Talbot
Nearest Locality: Taiko Flat
Area Size (ha): 0.07 **Altitude (m):** 240-260
Area Size (ha): 0.36 **Altitude (m):** 230-260
Area Size (ha): 0.97 **Altitude (m):** 230-260
Survey Time: 1 hour **Survey Date:** 29-08-11

General Description:

These three small SNAs lie on steep slopes beneath the low basalt scarp on the east side of Taiko Road. They comprise scattered basalt boulders (boulderfield) and smaller areas of exposed basalt bedrock, representing a southern extension of the basalt scarp of the western edge of the Timaru Downs.

Plant Communities:

The two main plant communities present are treeland and boulderfield. These plant communities are described separately below. Naturalized (exotic) species are indicated with an asterisk*.

Treeland is dominated by cabbage trees and pasture, with scattered basalt boulders and porcupine shrub. Also present at some sites are rushes, *Juncus gregiflorus* and *Juncus distegus*, and dead gorse* bushes.

Species present on or associated with the basalt boulders are necklace fern, *Cardamine debilis*, *Geranium microphyllum*, *Dichondra repens*, *Oxalis exilis*, hairy pennywort, *Leptinella* sp., pearlwort*, dandelion*, horehound*, sheep's sorrel*, mouse-ear chickweed*, woolly mullein*, nodding thistle*, yarrow* and occasionally *Libertia ixioides*, *Blechnum penna-marina*, common shield fern and gooseberry*.

SNAs 144a, b and c, viewed from SNA 147d

Birds/Fauna Observed:
Native birds observed during this brief survey were grey warbler and harrier. The boulderfield may provide useful habitat for lizards.

Notable Flora, Fauna and Habitats:
Important features of this area are the presence of indigenous vegetation on a basalt boulderfield, the relative dominance of porcupine shrub, and the habitat these areas may provide for lizards. Indigenous vegetation on basalt is a nationally uncommon ecosystem type. The SNAs lie within a threatened Land Environment.

Notable Plant and Animal Pests:
Gorse and gooseberry are the only woody plant pests present. Gorse has been sprayed and gooseberry is uncommon. Pasture grasses and herbs are the most invasive naturalized plants present.

Boundaries (buffering, fencing, adjoining plant communities and habitats):
The boundaries of these SNAs have been selected to include the main areas of boulderfield and scattered cabbage trees (treeland). These areas are grazed as part of a larger paddock.

Condition and Management Issues:
These areas are substantially depleted though still support some remnant natural values. The main management issue is the encouragement of regeneration of woody indigenous species.

ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:

Primary Criteria	Rank	Notes
Representativeness	L/M	Indigenous vegetation that is substantially depleted, though typical of that remaining at similar sites in the ecological district.
Rarity	M/H	Basalt boulderfield vegetation is a nationally uncommon ecosystem type. The areas lie within a threatened Land Environment.
Diversity and pattern	L	Species diversity is much reduced.
Distinctiveness/special features	M	The basalt boulderfields are distinctive and notable.
Other Criteria		
Size/shape	L/M	Small areas that are partially buffered.
Connectivity	M	The areas form part of a larger system of basalt bluff and boulderfield.
Long-term Sustainability	L/M	Restoration of indigenous vegetation and animal control will be necessary to maintain ecological values of these areas in the long term.

Final Consideration (of other matters: Section D, page B-19 of Timaru District Plan):
These SNAs occupy boulder slopes which have very limited potential for further farm development. The steepness of the slopes provides natural protection for the remaining indigenous plant communities.

Discussion:
These areas only just meet the District Plan criteria for Significant Natural Areas. Important features of the areas are the presence of indigenous vegetation on a basalt boulderfield, the relative dominance of porcupine shrub and the potential habitat for lizards. Indigenous vegetation on basalt is a nationally uncommon ecosystem type and the areas lie within a threatened Land Environment.

TIMARU DISTRICT SNA SURVEY SNA 147d

Area Name:
Location (central map reference): J39: 565-464
Ecological District: Waimate
Surveyors: Mike Harding

Property: Talbot
Nearest Locality: Taiko Flat
Area Size (ha): 1.06 **Altitude (m):** 240-280
Survey Time: ½ hour **Survey Date:** 29-08-11

General Description:

This SNA occupies a low basalt bluff and the steep slopes below the bluff on the east side of Taiko valley. The bluffs represent the western extent of the Timaru Basalt and are part of an exposure that extends northwards to Taiko.

Plant Communities:

The main plant communities present in this SNA are treeland on the steep slopes, hardwood forest adjacent to the bluff, and rockland vegetation on the exposed basalt. These plant communities are described separately below. Naturalized (exotic) species are indicated with an asterisk*.

The canopy of the small area of forest is dominated by cabbage tree, mahoe and pohuehue. The ground-cover within this small patch of forest is dominated by basalt boulders. Species present are foxglove*, black nightshade*, creeping buttercup*, field speedwell*, cleavers*, yarrow*, cocksfoot* and other pasture grasses. *Coprosma crassifolia* is occasionally present. A shelterbelt of pine trees is present above the basalt scarp. Treeland at the forest margin is dominated by cabbage trees and pasture grasses*. Other species present are porcupine shrub and a few dead gorse* bushes.

SNA 147d

Plant species on or associated with the basalt scarp and boulders are *Cardamine debilis*, mouse-ear chickweed*, pennywort, *Oxalis exilis*, *Dichondra repens*, *Geranium microphyllum*, hawksbeard*, necklace fern and common shield fern.

Birds/Fauna Observed:
The only native bird observed during this brief survey was grey warbler. The basalt scarp and boulderfield are likely to provide good habitat for lizards.

Notable Flora, Fauna and Habitats:
Important features of this area are the presence of indigenous vegetation on a basalt scarp and boulderfield, and the habitat this vegetation provides for native birds and probably lizards. Indigenous vegetation on basalt bluffs is a nationally uncommon ecosystem type. The SNA lies within a threatened Land Environment.

Notable Plant and Animal Pests:
No significant woody plant pests are present and gorse within the area has been controlled, though larger areas of uncontrolled gorse are present nearby. The main threat to the forest canopy is the smothering effect of the native climber, pohuehue (*Muehlenbeckia australis*). Animal pests were not surveyed though a possum was observed.

Boundaries (buffering, fencing, adjoining plant communities and habitats):
The lower boundary of this SNA has been selected to include the scattered cabbage trees (treeland). The upper boundary is the crest of the basalt bluff. The area is grazed as part of a larger paddock. The SNA grades to forest and treeland at its northern boundary (SNA 147a), and pasture at other boundaries.

Condition and Management Issues:
The forest canopy and vegetation on the steeper parts of the bluff are in moderate condition. Vegetation at other parts of the SNA is depleted by grazing. The most important management issues are protection of the vegetation from intensive grazing, control of pohuehue and control of other weeds that may appear.

ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:

Primary Criteria	Rank	Notes
Representativeness	M	Rockland vegetation is representative of the vegetation originally present; other vegetation is more modified, though typical of that remaining in the ecological district.
Rarity	M/H	Basalt bluff and boulderfield vegetation is a nationally uncommon ecosystem type. The area lies within a threatened Land Environment.
Diversity and pattern	L/M	Three plant communities are present, though species diversity is low.
Distinctiveness/special features	M	The basalt bluff and boulderfield are distinctive and notable.
Other Criteria		
Size/shape	M	A small to moderate-sized area that is reasonably well buffered.
Connectivity	M	Adjoins and lies close to other areas of indigenous vegetation on basalt.
Long-term Sustainability	M	Restoration of woody vegetation and animal control may be necessary to sustain ecological values in the long term.

Final Consideration (of other matters: Section D, page B-19 of Timaru District Plan):
This SNA occupies a rock bluff and steep boulder slopes which have very limited potential for further farm development. The steepness of the slope provides natural protection for the remaining indigenous plant communities.

Discussion:
This area meets the District Plan criteria for a Significant Natural Area. Important features of the area are the presence of indigenous vegetation and habitat on a basalt scarp and boulderfield, and that this ecosystem type is nationally uncommon and lies within a threatened Land Environment.