

TIMARU DISTRICT
SIGNIFICANT NATURAL AREAS
SURVEY

ROBB PROPERTY



Report prepared for Timaru District Council by Mike Harding
November 2011

TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

PROPERTY REPORT

PROPERTY DETAILS:

Owner: Trevor and Margaret Robb
Valuation References: 24850/018.01
Address: 658 Hadlow Road, Timaru 7974.
Location: Cliffs Road, on the east side of Taiko Valley.
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 200 and 240m 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 treeland and sparse rockland and boulderfield vegetation on bluffs and 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 September 2011. One area (SNA 147e), comprising less than one hectare, is regarded as a Significant Natural Area (SNA) when assessed against the District Plan criteria.

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 burning, spraying with herbicides and over-planting. SNAs encompass most, but not necessarily all, areas of vegetation and habitat which meet the Interim Definitions.

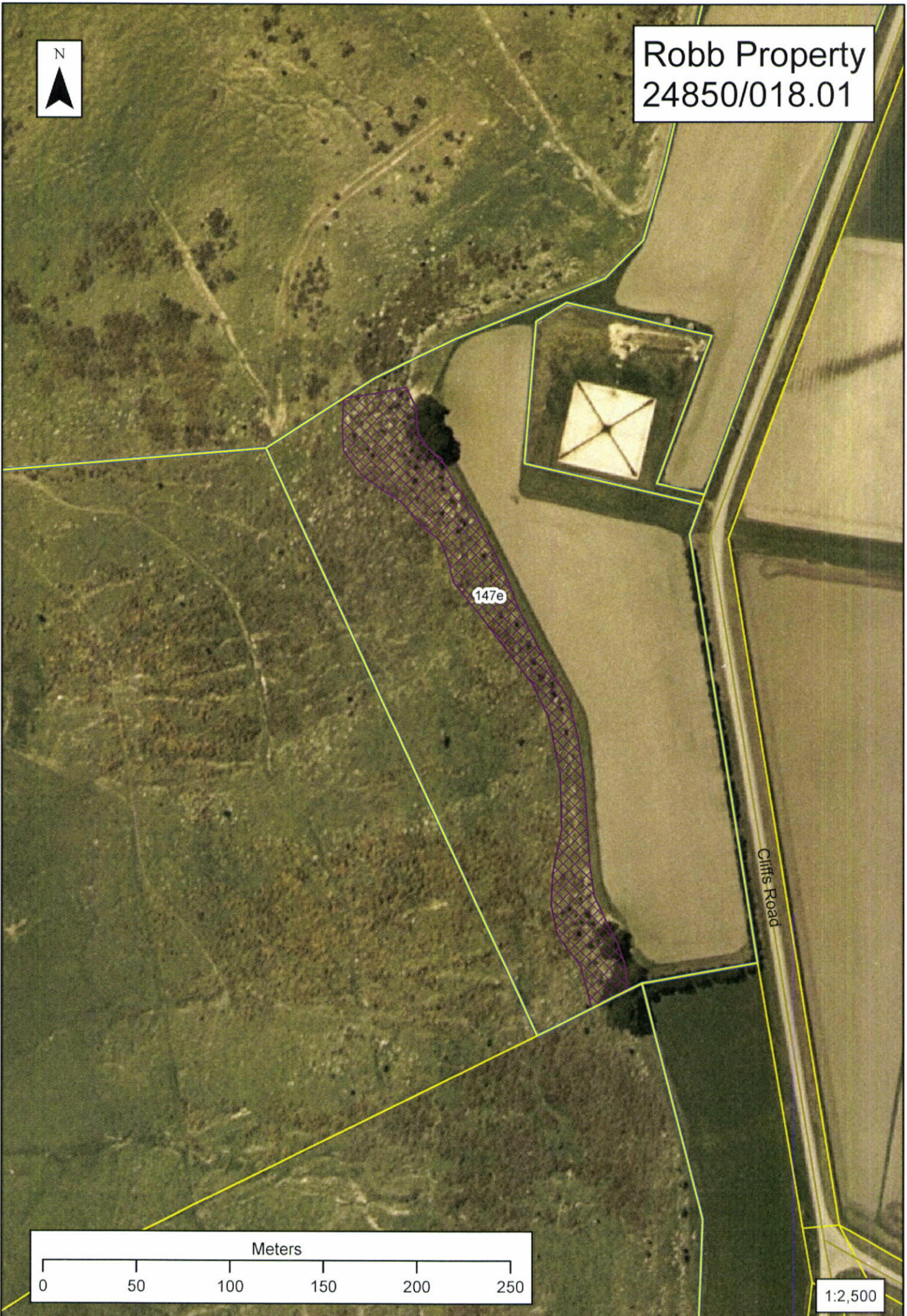
To assist with the protection and management of any SNA, landowners can apply to Council for financial assistance. Any questions regarding the protection, management and use of SNAs should be directed to the District Planner.



Button fern (Pellaea rotundifolia) at SNA 147e



Robb Property
24850/018.01



1:2,500

Area Name:**Location (central map reference):** J39: 559-482**Ecological District:** Waimate**Surveyors:** Mike Harding**Property:** Robb**Nearest Locality:** Taiko Flat**Area Size (ha):** 0.8**Altitude (m):** 220-240**Survey Time:** 1½ hours**Survey Date:** 07-09-11**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 to the north and south.

Plant Communities:

The main plant communities present in this SNA are rockland vegetation on the exposed basalt, cabbage tree woodland on the steep slopes, and gorse scrub. These plant communities are described separately below. Naturalized (exotic) species are indicated with an asterisk*.

The woodland is dominated by cabbage trees, with a patch of mahoe trees at the northern end. This plant community grades to gorse*-dominated scrub on lower slopes and a sparse rockland plant community on the basalt scarp.

Plant species on or associated with the basalt scarp and boulders are porcupine shrub, *Coprosma propinqua*, gorse*, native convolvulus, pohuehue, toatoa, *Einadia allanii*, *Libertia ixioides* (uncommon), *Crassula sieberiana*, star lily, scrambling fumitory*, sand spurrey*, button fern, necklace fern, *Asplenium appendiculatum*, common shield fern, male fern* and a single browsed bush of the at-risk (declining) shrub *Teucrium parvifolium*.



SNA 147e

Gorse* dominates the scrub on slopes beneath the basalt scarp. Other canopy species are occasional bushes of *Coprosma crassifolia*, *Coprosma propinqua*, elderberry* and scattered emergent cabbage trees. The ground cover is dominated by pasture species, notably cocksfoot*, Chewings fescue*, browntop* and yarrow*. Other species present are cleavers*, prickly sow thistle*, horehound*, vetch*, black nightshade*, nodding thistle*, native convolvulus, cranesbill*, chickweed*, mouse-ear chickweed*, dandelion*, white clover* and occasionally common shield fern, necklace fern, poroporo, bracken and mahoe.

Two stands of radiata pine* trees are present above the scarp at either end of the area.

Birds/Fauna Observed:

Native bird species observed during this brief survey were grey warbler, harrier and black-backed gull (flying overhead). 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, the habitat this vegetation provides for native birds and probably lizards, and the presence of two at-risk (declining) plant species (*Einadia allanii* and *Teucrium parvifolium*). Indigenous vegetation on basalt bluffs is a nationally uncommon ecosystem type. The SNA lies within a threatened Land Environment.



The lone browsed Teucrium parvifolium shrub, between rocks at the southern end of SNA 147e

Notable Plant and Animal Pests:

The most dominant woody plant pest present is gorse. However, it does not pose a significant threat to the rockland plant community and may assist in the regeneration of indigenous woody species on the slopes below the scarp. The only other woody plant pest present is elderberry. Animal pests were not surveyed though a large flock of goats is present and possum sign 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 part of a larger paddock that is mostly dominated by gorse scrub and appears, at present, to be grazed by goats. Other similar patches of indigenous vegetation are present along the basalt scarp to the north and south on adjacent properties.

Condition and Management Issues:

The rockland vegetation on the steeper parts of the bluff appears to be in condition. Vegetation at other parts of the SNA is dominated by gorse and depleted by grazing and browsing. The most important management issue is protection of the vegetation from goat browsing.

Property Owner Comment:

Mr Robb supports protection of indigenous vegetation within the SNA provided such protection does not affect his use of other parts of the property. He is interested in restoration of indigenous vegetation and habitat and control of goats at the site. Mr Robb is confident that plant pests, such as gorse, can be controlled without the use of herbicides. He is receptive to the idea of placing a protective covenant over the SNA.

ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:

Primary Criteria	Rank	Notes
Representativeness	M	Rockland vegetation is representative of the vegetation originally present; other vegetation is 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. The site supports two at-risk (declining) plant species.
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 well buffered.
Connectivity	M	Lies close to other areas of indigenous vegetation on basalt.
Long-term Sustainability	M	Animal pest 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, the presence of two at-risk (declining) plant species and that this ecosystem type is nationally uncommon and lies within a threatened Land Environment.



The indigenous herb, Einadia allanii, on the basalt scarp at SNA 147e

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)	
black nightshade*	<i>Solanum nigrum</i>
browntop*	<i>Agrostis capillaris</i>
button fern	<i>Pellaea rotundifolia</i>
cabbage tree/ti rakau	<i>Cordyline australis</i>
Chewings fescue*	<i>Festuca rubra</i> ssp. <i>commutata</i>
chickweed*	<i>Stellaria media</i>
cleavers*	<i>Galium aparine</i>
cocksfoot*	<i>Dactylis glomerata</i>
common shield fern	<i>Polystichum richardii</i>
cranesbill*	<i>Geranium molle</i>
dandelion*	<i>Taraxacum officinale</i>
elderberry*	<i>Sambucus nigra</i>
gorse*	<i>Ulex europaeus</i>
horehound*	<i>Marrubium vulgare</i>
kowhai	<i>Sophora microphylla</i>
mahoe/whiteywood	<i>Melicytus ramiflorus</i>
male fern*	<i>Dryopteris filix-mas</i>
matai/black pine	<i>Prumnopitys taxifolia</i>
mouse-ear chickweed*	<i>Cerastium fontanum</i>
native convolvulus	<i>Calystegia tuguriorum</i>
necklace fern	<i>Asplenium flabellifolium</i>
nodding thistle*	<i>Carduus nutans</i>
pohuehue	<i>Muehlenbeckia australis</i>
porcupine shrub	<i>Melicytus alpinus</i>
poroporo	<i>Solanum laciniatum</i>
prickly sow thistle*	<i>Sonchus asper</i>
radiata pine*	<i>Pinus radiata</i>
sand spurrey*	<i>Spergularia rubra</i>
scrambling fumitory*	<i>Fumaria muralis</i>
star lily	<i>Arthropodium candidum</i>
toatoa	<i>Haloragis erecta</i>
totara	<i>Podocarpus totara</i>
vetch*	<i>Vicia sativa</i>
white clover*	<i>Trifolium repens</i>
yarrow*	<i>Achillea millefolium</i>