

TIMARU DISTRICT
SIGNIFICANT NATURAL AREAS
SURVEY

McVEY PROPERTY
EVAN WILLIAMS (LESSEE)



Report prepared for Timaru District Council by Mike Harding
September 2011

TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

PROPERTY REPORT

PROPERTY DETAILS:

Owner: Gordon (Bill) McVey; Evan Williams (lessee)
Valuation Reference: 24850/049.00
Address: Matai Crescent, Timaru
Location: In the upper reaches of Pig Hunting Creek, south of Fairview Road, Timaru Downs
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 and valleys at the southern edge of the loess-covered basalt hills of the Timaru downlands, inland from Timaru in South Canterbury. The property lies at the eastern edge of Waimate Ecological District.

It is likely that the original vegetation of this area was predominantly podocarp and podocarp-hardwood forest, dominated by matai and totara. Shrubland, treeland and short tussockland may have occupied areas that were prone to infrequent natural fires. Basalt bluffs supported a specialised flora, including kowhai, and riparian areas probably 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 (Claremont Scenic Reserve), and on limestone slopes in the Taiko and Limestone valleys. Otherwise, the indigenous vegetation of the ED 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:

The property was surveyed as part of the District-wide survey of Significant Natural Areas during August 2011. Two areas, totalling approximately six 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
136f		J39: 600-425	0.87	hardwood forest and scrub
136g		J39: 598-423	5.37	hardwood forest and scrub

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.



Drier northeast-facing slopes of SNA 136g

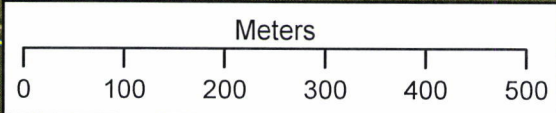
McVey Property
24850/049.00



Fairview Road

136f

136g



1:7,500

TIMARU DISTRICT SNA SURVEY

SNAs 136f and g

Area Name:**Ecological District:** Waimate**SNA 136f: Location** (central map ref.): J39: 600-425**SNA 136g: Location** (central map ref.): J39: 598-423**Surveyors:** Mike Harding**Property:** McVey/Williams**Nearest Locality:** Pareora West**Area Size (ha):** 0.87**Altitude (m):** 100-140**Area Size (ha):** 5.37**Altitude (m):** 100-140**Survey Time:** 3 hours**Survey Date:** 29-08-11

General Description:

These two SNAs occupy small valleys in the headwaters of Pig Hunting Creek, south of Fairview Road at the southern edge of the Timaru Downs. They cover low basalt scarps and the moderately-steep slopes below the scarps.

Plant Communities:

The main plant communities present at these SNAs are forest and shrubland, with associated rock bluff vegetation. These plant communities are described for each SNA below. Naturalized (exotic) species are indicated with an asterisk*.

Northeast gully (SNA 136f):

The southwest-facing slope of this gully supports a patch of hardwood forest dominated by matipo and pohuehue. Other canopy species are cabbage tree, broadleaf, plum*, elderberry* and native jasmine. Species present in the forest understorey are mapou, *Coprosma propinqua*, *Coprosma crassifolia*, poroporo and plum*. Groundcover species are common shield fern, necklace fern, hound's tongue fern, male fern*, *Hydrocotyle heteromeria* and seedlings of mahoe, matipo, native jasmine and elderberry*. Species commonly present on the exposed basalt scarp are common shield fern, necklace fern, *Asplenium hookerianum* and *Dichondra repens*.

This forest community grades to gorse* scrub at its upper boundary and shrubland-scrub at its lower boundary and extending onto the northeast-facing slopes of the gully. This plant community is dominated by gorse*, broom*, bracken, Himalayan honeysuckle* and pohuehue with emergent matipo, mapou, mahoe and cabbage tree. Other important species are *Coprosma propinqua*, blackberry*, *Hypolepis ambigua*, foxglove*, cleavers*, mouse-ear chickweed*, Scotch thistle* and pasture grasses*.



SNA 136f

Southwest gully (SNA 136g):

Southwest-facing slopes of this gully support hardwood forest dominated by matipo. Other canopy species are cabbage tree, broadleaf, pohuehue and native jasmine. Understorey species are matipo, mahoe, broadleaf, *Coprosma crassifolia*, *Coprosma propinqua*, *Coprosma propinqua* X *robusta*, cabbage tree, poroporo, blackberry* and native jasmine. Groundcover species are hairy pennywort, *Cardamine debilis*, common shield fern, necklace fern, *Asplenium appendiculatum*, *Asplenium hookerianum*, *Blechnum fluviatile* and seedlings of mahoe, matipo, broadleaf, cabbage tree and native jasmine. Plant species commonly present on the exposed basalt scarp are toatoa, hound's tongue fern, hanging spleenwort and *Libertia ixioides*.

This plant community grades at its margins to shrubland dominated by gorse* or bracken*, with emergent mahoe, matipo, cabbage tree and elderberry*. Other species present are Himalayan honeysuckle*, hybrid fuchsia, foxglove*, *Hypolepis ambigua*, common shield fern and lawyer. Two young sycamore* trees are present. Crack willow* trees are present along the stream. Also present near the stream is prickly shield fern.

Rocky northeast-facing slopes support shrubland with emergent matipo, mahoe, cabbage tree and pohuehue. Other species present are broom*, gorse*, cocksfoot*, blackberry*, *Coprosma propinqua*, elderberry*, cleavers*, bracken and pasture grasses. Small areas of forest are dominated matipo and mahoe. Understorey species are *Coprosma propinqua*, *Coprosma crassifolia*, mahoe and broadleaf. Plant species present on the exposed basalt scarp are *Coprosma crassifolia*, hanging spleenwort, necklace fern, *Einadia allanii*, toatoa and *Crassula sieberiana*.



SNA 136g

Birds/Fauna Observed:

Native birds observed during this brief survey were grey warbler, fantail, harrier, South Island pied oystercatcher and spur-winged plover. The basalt scarp and associated rocky areas are likely to provide important habitat for lizards.

Notable Flora, Fauna and Habitats:

Important features of this area are the presence of indigenous woody vegetation on basalt scarps and slopes (a nationally uncommon ecosystem type), the rarity of indigenous vegetation in this part of the District and the habitat the area provides for forest birds and probably lizards.

Notable Plant and Animal Pests:

Gorse and broom are the most common plant pests present. Elderberry, plum, Himalayan honeysuckle and sycamore are also present. Animal pests were not surveyed, though possum and other animal (deer?) sign was observed.

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

These two SNAs are well protected by their location in steep-sided gullies and buffered by dense gorse scrub at their upper margins. The areas lie within one large paddock, though grazing pressure appears to be light. A farm track crosses the northeast gully just upstream from SNA 136f. Both SNAs adjoin more extensive areas of indigenous forest, scrub and rockland vegetation down-valley on an adjoining property.

Condition and Management Issues:

The vegetation within these areas is in relatively good condition. Lack of intensive grazing and other disturbances have allowed regeneration of indigenous woody species in the scrub and maintenance of relatively healthy understorey vegetation. The most important management issues are control of invasive woody plant pests, notably sycamore and plum, and control of wild animals, especially possums.

Property Owner Comment:

Mr Williams is interested to retain and enhance these areas of indigenous vegetation.

ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:

Primary Criteria	Rank	Notes
Representativeness	M	Indigenous vegetation typical of that remaining in the ecological district and moderately representative of the vegetation originally present.
Rarity	M/H	Indigenous vegetation on basalt scarps is a nationally uncommon ecosystem type. The area lies within a threatened Land Environment.
Diversity and pattern	M	Three main plant communities are present, though species diversity is probably reduced from that originally present.
Distinctiveness/special features	M	The basalt scarp and boulders are distinctive and notable.
Other Criteria		
Size/shape	M	Small to moderate sized areas that are very well buffered.
Connectivity	M	Both SNAs adjoin other indigenous vegetation at their down-valley margins.
Long-term Sustainability	M/H	Some plant and animal pest control will be necessary to maintain ecological values in the long term.

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

The location of these areas on steep slopes in gullies limits their potential for farm development. The landowner (and lessee) have avoided clearance and thereby allowed for continued regeneration of indigenous woody species.

Discussion:

These areas meet the District Plan criteria for Significant Natural Areas. Important features of the areas are the presence of indigenous woody vegetation on basalt scarps and slopes (a nationally uncommon ecosystem type), the rarity of indigenous vegetation in this part of the District, the habitat the areas provide for forest birds and probably lizards, and the location of the areas within a threatened Land Environment.

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)	
blackberry*	<i>Rubus fruticosus</i>
bracken.....	<i>Pteridium esculentum</i>
broadleaf	<i>Griselinia littoralis</i>
broom*	<i>Cytisus scoparius</i>
cabbage tree/ti rakau	<i>Cordyline australis</i>
cleavers*	<i>Galium aparine</i>
cocksfoot*	<i>Dactylis glomerata</i>
common shield fern.....	<i>Polystichum richardii</i>
crack willow*	<i>Salix fragilis</i>
elderberry*	<i>Sambucus nigra</i>
foxglove*	<i>Digitalis purpurea</i>
gorse*	<i>Ulex europaeus</i>
hairy pennywort	<i>Hydrocotyle moschata</i>
hanging spleenwort	<i>Asplenium flaccidum</i>
Himalayan honeysuckle*	<i>Leycesteria formosa</i>
hound's tongue fern	<i>Microsorium pustulatum</i>
hybrid fuchsia	<i>Fuchsia perscandens x excorticata</i>
kowhai.....	<i>Sophora microphylla</i>
lawyer	<i>Rubus schmidelioides</i>
mahoe/whiteywood.....	<i>Melicytus ramiflorus</i>
male fern*	<i>Dryopteris filix-mas</i>
mapou	<i>Myrsine australis</i>
matai/black pine	<i>Prumnopitys taxifolia</i>
matipo/kohuhu	<i>Pittosporum tenuifolium</i>
mouse-ear chickweed*	<i>Cerastium fontanum</i>
native jasmine	<i>Parsonsia heterophylla</i>
necklace fern	<i>Asplenium flabellifolium</i>
plum*	<i>Prunus sp.</i>
pohuehue.....	<i>Muehlenbeckia australis</i>
poroporo.....	<i>Solanum laciniatum</i>
prickly shield fern	<i>Polystichum vestitum</i>
Scotch thistle*	<i>Cirsium vulgare</i>
sycamore*	<i>Acer pseudoplatanus</i>
toatoa.....	<i>Haloragis erecta</i>
totara	<i>Podocarpus totara</i>