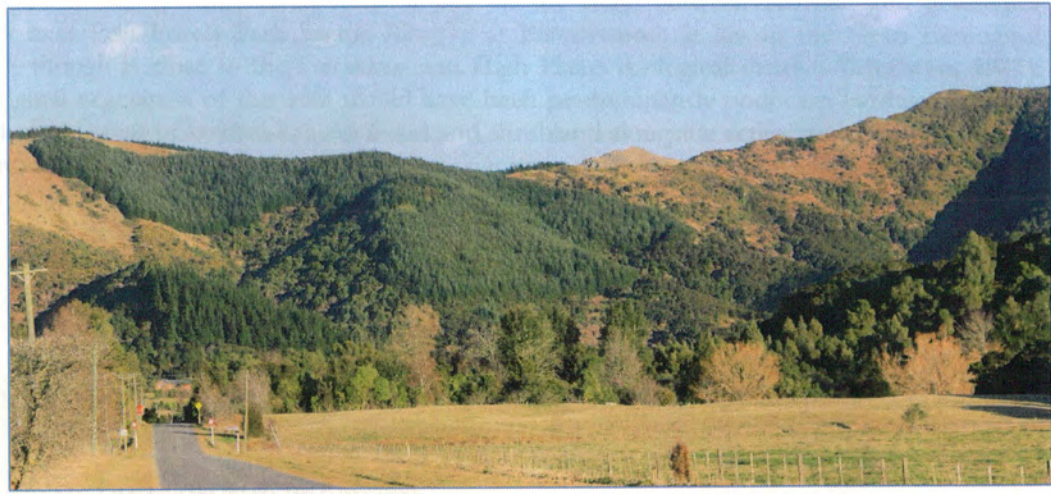


TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

# TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

Publication Reference: ... 2164 / 2015  
Address: ... Lochaber Street  
Location: ... On the eastern side of ...  
Ecological District: ...

## HARRISON PROPERTY



Report prepared for Timaru District Council by Mike Harding  
October 2015



# TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

## PROPERTY REPORT

### PROPERTY DETAILS:

**Owner:** ..... Paul and Jennifer Harrison  
**Valuation References:** ..... 24640/035.00  
**Address:** ..... Lochaber Station  
**Location:**..... On the prominent ridge between Kowhai and Scotsburn streams, Blandswood.  
**Ecological District:** ..... Orari Ecological District.  
**TDC Land Type:**..... Hard Rock Hills and Downs.  
**Land Environment:**..... Q2.1a (Southeastern Hill Country).

### ECOLOGICAL CONTEXT:

The property lies on moderately-steep slopes on the ridge between Kowhai and Scotsburn streams near Peel Forest Park Scenic Reserve at Blandswood. It lies in the Orari Ecological District, though is close to the Geraldine and High Plains ecological districts (McEwen, 1987). The original vegetation of this area would have been predominantly podocarp-hardwood forest, with localized areas of kowhai-kanuka forest and shrubland alongside active stream channels. The indigenous fauna would probably have been significantly more numerous and diverse, with a greater range of birds, lizards and invertebrates than is presently found in the area.

Indigenous vegetation on the property comprises indigenous hardwood forest with podocarps (kahikatea and totara) present mostly as young trees. This vegetation lies near to other indigenous vegetation on adjacent properties and adjoins that protected within the regionally-important Peel Forest Park Scenic Reserve. The property lies within the known distribution of the South Canterbury population of long-tailed bat, listed as a nationally endangered species (O'Donnell *et al*, 2012).

### SIGNIFICANT AREAS ON THE PROPERTY:

The property was surveyed as part of the District-wide survey of Significant Natural Areas during July 2015. Five areas, totalling approximately 54 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 map ref. (NZTM)	Aprox. size (ha)	Vegetation/habitat type
30d		1456990E-5136720N	23.7	hardwood forest; kanuka forest
30e		1457000E-5136150N	2.7	hardwood forest
30f		1457300E-5135850N	56.1	hardwood forest
685		1457700E-5135700N	7.8	podocarp-hardwood forest
686		1457350E-5137525N	17.1	hardwood forest; kanuka forest

These SNAs are illustrated on the attached aerial photograph and described in greater detail on the SNA Survey 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 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.

Clearance of vegetation to maintain tracks, such as for extraction of timber from adjacent plantation forest, is permitted by the District Plan.

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.

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#### **OTHER AREAS INSPECTED ON THE PROPERTY:**

There are other areas of indigenous vegetation and habitat on the property. These comprise smaller areas of forest along the property boundary in the Scotsburn and areas of low-canopied regenerating forest. Indigenous vegetation in these areas does not meet the significance criteria in the Timaru District Plan. This does not mean that these areas are not important for nature conservation or the protection of indigenous biodiversity; it simply means that they do not (as assessed at this time) meet the criteria in the Timaru District Plan.

#### **References Cited**

- McEwen, WM (editor). 1987. Ecological regions and districts of New Zealand, third revised edition (Sheet 4). *New Zealand Biological Resources Centre Publication No. 5*. Department of Conservation, Wellington, 1987.
- O'Donnell, C.F.J.; Christie, J.E.; Lloyd, B.; Parsons, S.; Hitchmough, R.A. 2012. Conservation status of New Zealand bats 2012. *New Zealand Threat Classification Series 6*. Department of Conservation, Wellington.
- Robertson, HA; Dowding, JE; Elliot, GP; Hitchmough, RA; Miskelly, CM; O'Donnell, CFJ; Powlesland, RG; Sagar, PM; Scofield, RP; Taylor, GA. 2012. Conservation status of New Zealand birds, 2012. *New Zealand Threat Classification Series 4*. Department of Conservation, Wellington.





1:12,000

Blair Road

0 100 200 400  
Meters



685

307

30e

30d

686

Blandwood Road

Harrison Property  
24640/035.00



# TIMARU DISTRICT SNA SURVEY

SNA 30 (d, e, f)

**Area Name:** Scotsburn Faces

**Ecological District:** Orari

**SNA 30d: Central map ref. (NZTM):** 1456990E-5136720N

**SNA 30e: Central map ref. (NZTM):** 1457000E-5136150N

**SNA 30f: Central map ref. (NZTM):** 1457300E-5135850N

**Surveyors:** Mike Harding

**Property:** Harrison

**Nearest Locality:** Blandswood

**Area Size (ha):** 23.7

**Altitude (m):** 360-500

**Area Size (ha):** 2.7

**Altitude (m):** 360-500

**Area Size (ha):** 6.1

**Altitude (m):** 360-500

**Survey Time:** 4 hours

**Survey Date:** 24-07-15

## General Description:

These three sites lie on the steep upper slopes of the Scotsburn. They adjoin at their lower boundaries an area of public conservation land along the lower slopes of the valley. The boundaries of these areas are drawn to include the areas of taller (older) regenerating indigenous forest. The areas are separated by younger indigenous scrub, gorse\* scrub and open shrubland or grassland (rough pasture).

## Plant Communities:

Indigenous hardwood forest is the main plant community present, including areas of low kanuka and manuka forest, as described below. Naturalized (exotic) species are indicated with an asterisk\*. Scientific names of plant species are listed at the end of this report.

The forest canopy at most parts of these areas is dominated by broadleaf or fuchsia. Other common canopy species are lemonwood, kanuka, matipo, five-finger, three-finger, lancewood, mountain akeake, kowhai, mahoe, cabbage tree, wineberry, mapou, narrow-leaved mahoe, mountain ribbonwood, bush lawyer and native jasmine. Emergent lone radiata pine\* trees are present in places. A large patch of southern rata forest is present on a rocky slope at the lower edge of SNA 30f, and mostly on adjacent land. Small areas of low manuka-dominated forest are also present.

The forest understorey is generally open. Species occasionally dominant in the understorey are *Coprosma rhamnoides*, *Coprosma rotundifolia*, horopito and mahoe. Other plant species present are mapou, broadleaf, totara saplings, *Coprosma crassifolia*, yellowwood, pate, marbleleaf, *Helichrysum lanceolatum* (uncommon), bush lawyer and, on tree trunks, hound's tongue fern, hanging spleenwort, native jasmine and *Huperzia varia*.

The forest floor is mostly dominated by prickly shield fern, with hound's tongue fern and/or mountain kiokio dominant at rocky sites. Other species present are *Carex forsteri*, hookgrass, bidibid, pennywort, bush lily, necklace fern, *Asplenium richardii*, *Asplenium appendiculatum*, *Asplenium bookerianum*, button fern, *Blechnum fluviatile*, *Blechnum chambersii*, *Blechnum procerum*, water fern, *Hypolepis ambigua* and seedlings of mahoe, broadleaf, mountain akeake, kowhai, mountain ribbonwood, clematis and *Coprosma* species.



SNA 30f



Plant species present at forest margins or canopy gaps are *Coprosma propinqua*, *Coprosma dumosa*, *Coprosma crassifolia*, tauhinu, matipo, narrow-leaved mahoe, totara saplings (uncommon), inaka, *Dracophyllum uniflorum*, manuka, three-finger, Himalayan honeysuckle\*, koromiko, bush snowberry, gorse\*, bush lawyer, scrub pohuehue, pohuehue, cotton daisy, tutu, bush lily, blue tussock, narrow-leaved snow-tussock, fescue tussock, mountain flax, toetoe (uncommon), golden speargrass, *Aciphylla scott-thomsonii*, patotara, mouse-ear hawkweed\*, hound's tongue fern, bracken, prickly shield fern, mountain kiokio, *Asplenium appendiculatum*, necklace fern, hen and chickens fern, *Blechnum penna-marina*, *Lycopodium volubile* and *Lycopodium fastigiatum*.

Additional species present on lower slopes (mostly on adjacent land) are kahikatea, narrow-leaved lacebark, soft tree fern, weeping mapou, *Blechnum vulcanicum*, *Blechnum colensoi* and *Blechnum discolor*.

### Birds/Fauna Observed:

Native birds observed during this survey were bellbird, fantail, tomtit, grey warbler, rifleman, brown creeper, silvereve and harrier. An eastern falcon was heard elsewhere on the property (SNA 685). Eastern falcon are listed by Robertson *et al* (2012) as an 'at risk' (recovering) species.

### Notable Flora, Fauna and Habitats:

Important features of these areas are the diversity of plant species present, the extent of habitat they provide for birds probably including eastern falcon, the presence of locally uncommon plant species (toetoe, *Helichrysum lanceolatum*, *Huperzia varia*, *Lycopodium volubile* and southern rata), and that the areas adjoin and buffer an area of protected (public conservation) land.

### Notable Plant and Animal Pests:

Gorse is the most widespread plant pest present, though it does not pose a significant threat to the taller forest. The only other woody plant pests observed were Himalayan honeysuckle and occasional wilding pine and Douglas fir trees. Animal pests were not surveyed, though possum sign and abundant deer sign (tracks, droppings and wallows) were observed.

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

The boundaries of these three areas are drawn to include the areas of taller (older) forest. These boundaries are somewhat arbitrary, as the forest edges grade in many places to scrub dominated by indigenous species. The areas adjoin, at their lower boundaries, an area of public conservation land administered by the Department of Conservation along the lower valley sides of the Scotsburn. The areas also lie close to other areas of indigenous vegetation. The areas are not fenced but are well buffered by their locations on steep rocky slopes.

### Condition and Management

The forest canopies of these area are in good condition. Understorey and forest-floor vegetation is depleted, presumably due to browsing and tracking by deer. The most important management issue is control of wild animals, especially deer and possums.

## ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:

Primary Criteria	Rank	Notes
Representativeness	M	Indigenous forest that is moderately representative of the original vegetation and typical of that remaining in this part of the ecological district.
Rarity	M	Supports several locally uncommon plant species and provides habitat for an 'at risk' bird species: eastern falcon.
Diversity and pattern	M/H	Plant species diversity is relatively high (approximately 80 vascular species)
Distinctiveness/special features	M/H	The presence of southern rata forest (though mostly on adjacent land) is an important feature.
Other Criteria		
Size/shape	M	Small to moderate sized areas that are well buffered.
Connectivity	M/H	Each area adjoins protected indigenous forest at its lower boundary.
Long-term Sustainability	M/H	Animal control is likely to be necessary to maintain ecological values in the long term.



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

These areas have been deliberately set aside from forestry and farming. They occupy steep rocky slopes that have only limited potential for development. The areas buffer and help protect public conservation land along the Scotsburn.

**Discussion:**

These areas meet the District Plan criteria for significant natural areas (SNAs). Important features are the diversity of plant species present, the extent of habitat they provide for birds probably including eastern falcon, the presence of five locally uncommon plant species, and that the areas adjoin and buffer an area of protected (public conservation) land.



*SNA 30d*



**Area Name:** Lower Scotsburn

**Ecological District:** Orari

**Central map ref. (NZTM):** 1457700E-5135680N

**Surveyors:** Mike Harding

**Property:** Harrison

**Nearest Locality:** Blandswood

**Area Size (ha):** 7.8

**Altitude (m):** 300-400

**Survey Time:** 2 hours

**Survey Date:** 28-07-15

### General Description:

This SNA comprises an area of indigenous forest on south-facing slopes at the lower end of the Scotsburn Gorge, at the southern corner of the property. It adjoins public conservation land along its southwest (Scotsburn) boundary and other SNAs (657c, 657d and 657f) along its eastern boundary.

### Plant Communities:

The plant community on upper slopes is indigenous hardwood forest. Emergent podocarps are present on lower slopes. These plant communities are described below. Naturalized (exotic) species are indicated with an asterisk\*. Scientific names of plant species are listed at the end of the report.

Upper slope forest is dominated by broadleaf, with extensive patches of fuchsia in places. Other canopy species are cabbage tree, kowhai, lemonwood, mahoe, five-finger, matipo, marbleleaf, lancewood, wineberry, mapou, bush lawyer, *Clematis foetida*, native jasmine, pohuehue and old man's beard\*. A single deciduous tree\* (elm?) and a single holly\* tree are present near the upper forest boundary.

Mahoe is the most common understorey species. Other plant species are *Coprosma rotundifolia*, *Coprosma rhamnoides*, mapou, marbleleaf, pate and occasional totara saplings. The forest floor is relatively open. The most common species present is prickly shield fern. Other species are *Carex forsteri*, necklace fern, hen and chickens fern, *Asplenium richardii*, mountain kiokio, *Blechnum fluviatile*, button fern, hound's tongue fern and seedlings of mahoe, pate, and *Coprosma* species.

Plant species present at the forest margin are Himalayan honeysuckle\*, gorse\*, broom\*, mountain akeake, *Coprosma propinqua*, *Coprosma dumosa*, mountain flax, prickly shield fern, bracken, *Hypolepis ambigua* and totara saplings. Additional species present at the base of the slope are kahikatea, totara, matai, narrow-leaved lacebark, kanuka, pokaka, poataniwha, turepo, horopito, *Blechnum chambersii*, *Asplenium hookerianum*, leather-leaf fern, hookgrass, *Libertia ixiooides* and velvety nightshade\*. Holly\* is also present in the canopy and understorey.



SNA 685

### Birds/Fauna Observed:

Native birds observed during this survey were bellbird, grey warbler, silvereye, fantail, tomtit, rifleman, kereru and eastern falcon. Eastern falcon is an 'at risk' (recovering) species (Robertson *et al*, 2012).



### Notable Flora, Fauna and Habitats:

Notable features of this area are the presence of old podocarp (kahikatea and totara) trees on the lower slopes (presumably old-growth forest), the habitat the area provides for forest birds and eastern falcon, and that the area adjoins and links other SNAs and protected areas.

### Notable Plant and Animal Pests:

Holly, old man's beard and elm (?) are the most important plant pests present. Old man's beard forms relatively large patches on the lower slopes. Other naturalized species, such as gorse, broom and Himalayan honeysuckle, do not pose a significant threat. Animal pests were not surveyed, though possum and deer sign was observed.

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

The boundaries of this area are the property boundaries and the edge of the plantation forest on the upper slope. The area adjoins other SNAs to the east, the bed of the Scotsburn to the south and public conservation land to the southwest. It lies close to other areas of indigenous forest, such as that within SNA 30.

### Condition and Management

The forest canopy is in reasonable condition but is badly affected in places by old man's beard. Holly is also common, notably on lower slopes. Important management issues are the control of old man's beard, holly and possums.

### ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:

Primary Criteria	Rank	Notes
Representativeness	M/H	A good example (especially on lower slopes) of forest representative of the original vegetation, and containing old emergent podocarp trees.
Rarity	M	Provides habitat for an 'at risk' bird species: eastern falcon.
Diversity and pattern	M	Plant species diversity is moderate and typical.
Distinctiveness/special features	M	The area of old-growth forest with typical lowland understorey species, on lower slopes, is notable.
<b>Other Criteria</b>		
Size/shape	M	A small to moderate sized area that is well buffered.
Connectivity	H	Adjoins and links other SNAs and protected areas.
Long-term Sustainability	M	Old man's beard and holly pose a significant threat to this area.

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

This area has been set aside from development by the landowners. Its relatively steep stony slopes limit its potential for farm development.

### Discussion:

This area easily meets the district plan criteria for a Significant Natural Area (SNA). Part of the area supports old-growth indigenous forest; now uncommon in the district. It also provides habitat for eastern falcon and links other SNAs and public conservation land.

*SNA 685: forest understorey, mid-slope*





**Area Name:** Upper Kowhai

**Ecological District:** Orari

**Central map ref. (NZTM):** 1457350E-5137525N

**Surveyors:** Mike Harding

**Property:** Harrison

**Nearest Locality:** Blandswood

**Area Size (ha):** 17.1

**Altitude (m):** 400-500

**Survey Time:** 3½ hours

**Survey Date:** 23-07-15

### General Description:

This area occupies moderately steep slopes at the northeast corner of the property. It covers the southern side of upper Kowhai Stream and includes a small tributary valley. It adjoins Peel Forest Park Scenic Reserve to the north and a freehold land parcel to the east, which includes SNA 687. The vehicle access track through the property bisects the area.

### Plant Communities:

This SNA supports young regenerating indigenous forest. Two main plant communities are present: kanuka forest on lower slopes; and broadleaf-dominated forest on upper south-facing slopes, though these communities grade together. These plant communities are described below. Naturalized (exotic) species are indicated with an asterisk\*. Scientific names of species are listed at the end of this report.

The forest canopy on lower slopes is dominated by kanuka, with trunk diameters (at breast height) from 15 to 30cm. Other canopy species present are matipo, mapou, five-finger, lancewood, lemonwood and bush lawyer. The forest canopy on south-facing slopes is dominated by large old broadleaf trees, with mahoe, kowhai and five-finger. Other canopy species present in the main side-valley are marbleleaf, mountain akeake, wineberry, fuchsia, pate, mountain ribbonwood, narrow-leaved lacebark, cabbage tree, young kahikatea and pohuehue.

The forest understorey is, in most places, quite thick. Dominant understorey species are *Coprosma rhamnoides*, five-finger and mapou. Other species present are broadleaf, matipo, lancewood, weeping mapou, lemonwood, yellowwood, mahoe, wineberry, *Coprosma rotundifolia*, *Coprosma dumosa*, pate, horopito and bush lawyer. Less commonly present are pokaka, bush snowberry, *Raukawa simplex*, narrow-leaved mahoe, koromiko, leather-leaf fern and hanging spleenwort. Occasional young totara trees are present in places, with trunk diameters (at breast height) from 10 to 15cm.



Foreground: kanuka forest at SNA 686; distance: Peel Forest Park Scenic Reserve

Mountain kiokio is the most common ground-cover species present. Other species are bush lily, hound's tongue fern, *Asplenium appendiculatum*, *Asplenium richardii*, *Asplenium hookerianum*, hen and chickens fern, necklace fern, prickly shield fern, *Blechnum vulcanicum*, *Blechnum minus*, *Blechnum fluviatile*, *Blechnum chambersii*, *Blechnum penna-marina*, crown fern, button fern, *Lagenifera* sp., hookgrass, *Uncinia divaricata*, *Carex forsteri*, wall lettuce\* and seedlings of five-



finger, broadleaf, lancewood, mahoe, horopito, kowhai, native jasmine, native bindweed, *Clematis marata*, *Clematis paniculata* and *Coprosma* species.

Species commonly present at forest margins or canopy gaps are manuka, narrow-leaved mahoe, *Coprosma dumosa*, *Coprosma propinqua*, Himalayan honeysuckle\*, mountain akeake, inaka, koromiko, tauhinu, gorse\*, broom\*, blackberry\*, bracken, mountain kiokio, *Hypolepis ambigua*, mountain flax, foxglove\*, water fern, male fern\* and *Lycopodium volubile*.



*Understorey of the kanuka forest at SNA 686*

#### **Birds/Fauna Observed:**

Native birds observed during this brief survey were bellbird, kereru, brown creeper, rifleman, fantail and tomtit. Grey warbler and harrier were observed nearby. Eastern falcon was observed elsewhere on the property and is likely to utilize this area. Eastern falcon are listed as an 'at risk' (recovering) species (Robertson *et al*, 2012).

#### **Notable Flora, Fauna and Habitats:**

Important features of this area are the diversity of plant species (at least 68 vascular species), the presence of locally uncommon plant species (*Blechnum vulcanicum*, *Lagenifera* sp., *Lycopodium volubile* and *Raukawa simplex*), the habitat the area provides for forest birds including eastern falcon (an 'at risk' species), and that the area buffers and complements habitat in an adjacent protected area (Peel Forest Park Scenic Reserve).

#### **Notable Plant and Animal Pests:**

The most common plant pests present are gorse, broom, blackberry and Himalayan honeysuckle. These species are present at the forest margins and at forest openings but do not pose a significant threat to the indigenous forest. Animal pests were not surveyed, though possum sign and one red deer were observed.

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

The boundaries of this area are drawn to include the taller indigenous forest. This forest grades to younger indigenous forest and scrub (with gorse in places) at its upper margin, except where it adjoins plantation Douglas fir forest. The area is contiguous with protected indigenous forest along its northern (Kowhai Stream) boundary.

#### **Condition and Management**

Indigenous forest at this site is in good condition. It has a healthy understorey except on steeper rocky slopes at upper parts of the site. It is bisected by a narrow road, which provides the only vehicle access through the property.



The main priority for management is continued animal pest control. It is likely that the vehicle track will require upgrading to enable harvest of plantation trees on upper slopes. It should be possible to upgrade the vehicle track without having a major effect on ecological values of the area.

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**ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:**

<b>Primary Criteria</b>	<b>Rank</b>	<b>Notes</b>
Representativeness	<b>M/H</b>	Indigenous forest that is moderately representative of the original vegetation and typical of forest remaining in the ecological district.
Rarity	<b>M</b>	Supports populations of four locally uncommon plant species; provides likely habitat for an 'at risk' bird species (eastern falcon).
Diversity and pattern	<b>M/H</b>	Plant species diversity is relatively high.
Distinctiveness/special features	<b>M</b>	The presence of young podocarp (totara and kahikatea) trees is a notable feature.
<b>Other Criteria</b>		
Size/shape	<b>M/H</b>	A moderate-sized area that is well buffered.
Connectivity	<b>M/H</b>	Adjoins a protected area along its northern boundary.
Long-term Sustainability	<b>M/H</b>	Ongoing animal pest control is likely to be necessary to maintain ecological values in the long term.

H=high; M=moderate; L=low

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

This area has been deliberately set aside from farming and forestry and informally protected by the landowners. Gentler parts of the area have some potential for farming or forestry development, though now support dense indigenous vegetation. The vehicle track through this area is critical for access to other parts of the property. Upgrading of this track may be necessary to enable harvest of plantation forest on higher slopes.

**Discussion:**

This area easily meets the District Plan criteria for a Significant Natural Area (SNA). Important features are the presence of locally uncommon plant species, high plant species diversity, the habitat it provides for forest birds and possibly eastern falcon, and that the area adjoins and buffers an important protected area (Peel Forest Park Scenic Reserve).



## 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)	
bidibid .....	<i>Acaena</i> sp.
blackberry* .....	<i>Rubus fruticosus</i>
blue tussock.....	<i>Poa colensoi</i>
bracken.....	<i>Pteridium esculentum</i>
broadleaf .....	<i>Griselinia littoralis</i>
broom* .....	<i>Cytisus scoparius</i>
bush lawyer.....	<i>Rubus cissoides</i>
bush lily.....	<i>Astelia fragrans</i>
bush snowberry .....	<i>Gaultheria antipoda</i>
button fern.....	<i>Pellaea rotundifolia</i>
cabbage tree/ti rakau .....	<i>Cordyline australis</i>
clematis .....	<i>Clematis paniculata</i>
cotton daisy .....	<i>Celmisia spectabilis</i> var. <i>magnifica</i>
crown fern.....	<i>Blechnum discolor</i>
Douglas fir/oregon* .....	<i>Pseudotsuga menziesii</i>
fescue tussock .....	<i>Festuca novae-zelandiae</i>
five-finger .....	<i>Pseudopanax arboreus</i>
foxglove* .....	<i>Digitalis purpurea</i>
fuchsia.....	<i>Fuchsia excorticata</i>
golden speargrass .....	<i>Aciphylla aurea</i>
gorse* .....	<i>Ulex europaeus</i>
hanging spleenwort .....	<i>Asplenium flaccidum</i>
hen and chickens fern.....	<i>Asplenium gracillimum</i>
Himalayan honeysuckle* .....	<i>Leycesteria formosa</i>
holly* .....	<i>Ilex aquifolium</i>
hookgrass .....	<i>Uncinia</i> sp.
horopito/pepperwood .....	<i>Pseudowintera colorata</i>
hound's tongue fern .....	<i>Microsorium pustulatum</i>
inaka.....	<i>Dracophyllum longifolium</i>
kahikatea/white pine .....	<i>Dacrycarpus dacrydioides</i>
kanuka.....	<i>Kunzea ericoides</i>
koromiko .....	<i>Hebe salicifolia</i>
kowhai.....	<i>Sophora microphylla</i>
lancewood.....	<i>Pseudopanax crassifolius</i>
leather-leaf fern.....	<i>Pyrrhosia eleagnifolia</i>
lemonwood.....	<i>Pittosporum eugenoides</i>
mahoe/whiteywood .....	<i>Melicytus ramiflorus</i>
male fern* .....	<i>Dryopteris filix-mas</i>
manuka.....	<i>Leptospermum scoparium</i>
mapou .....	<i>Myrsine australis</i>
marbleleaf/putaputaweta .....	<i>Carpodetus serratus</i>
matai/black pine .....	<i>Prumnopitys taxifolia</i>
matipo/kohuhu .....	<i>Pittosporum tenuifolium</i>
mountain akeake .....	<i>Olearia avicenniifolia</i>
mountain flax .....	<i>Phormium cookianum</i>
mountain kiokio .....	<i>Blechnum montanum</i>
mountain ribbonwood .....	<i>Hoheria lyallii</i>
mouse-ear hawkweed* .....	<i>Pilosella officinarum</i>
narrow-leaved lacebark.....	<i>Hoheria angustifolia</i>
narrow-leaved mahoe.....	<i>Melicytus lanceolatus</i>
narrow-leaved snow-tussock.....	<i>Chionochloa rigida</i>



native bindweed .....	<i>Calystegia tuguriorum</i>
native jasmine .....	<i>Parsonsia heterophylla</i>
necklace fern .....	<i>Asplenium flabellifolium</i>
old man's beard* .....	<i>Clematis vitalba</i>
pate.....	<i>Schefflera digitata</i>
patotara.....	<i>Leucopogon fraseri</i>
pennywort .....	<i>Hydrocotyle novae-zelandiae</i>
poataniwha .....	<i>Melicope simplex</i>
pohuehue .....	<i>Muehlenbeckia australis</i>
pokaka.....	<i>Elaeocarpus hookerianus</i>
prickly shield fern .....	<i>Polystichum vestitum</i>
radiata pine*.....	<i>Pinus radiata</i>
scrub pohuehue .....	<i>Muehlenbeckia complexa</i>
soft tree fern.....	<i>Cyathea smithii</i>
southern rata.....	<i>Metrosideros umbellata</i>
tauhinu .....	<i>Ozothamnus leptophyllus</i>
three-finger.....	<i>Pseudopanax colensoi</i>
toetoe.....	<i>Cortaderia richardii</i>
totara .....	<i>Podocarpus totara</i>
turepo .....	<i>Streblus heterophyllus</i>
tutu .....	<i>Coriaria sarmentosa</i>
velvety nightshade* .....	<i>Solanum chenopodioides</i>
wall lettuce* .....	<i>Mycelis muralis</i>
water fern .....	<i>Histiopteris incisa</i>
weeping mapou .....	<i>Myrsine divaricata</i>
wineberry .....	<i>Aristotelia serrata</i>
yellowwood.....	<i>Coprosma linariifolia</i>