

TIMARU DISTRICT
SIGNIFICANT NATURAL AREAS
SURVEY

FRANCE PROPERTY
MONOWAI STATION



Report prepared for Timaru District Council by Mike Harding
July 2013

TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

PROPERTY REPORT

PROPERTY DETAILS:

Owner: John and Jenny France
Valuation References: 24810/033.00
Address: State Highway 8, Albury 7984
Location: On the west slopes of the Brothers Range.
Ecological District: Fairlie Ecological District.
TDC Land Type: Hard Rock Hills and Downs.
Land Environment: mostly Q2.1a and E3.1a (Central Dry Foothills).

ECOLOGICAL CONTEXT:

The property lies on the western slopes of the Brothers Range at the eastern edge of Fairlie Ecological District. The original vegetation of this area would have been predominantly podocarp-hardwood forest, with localized areas of kowhai forest on rocky slopes and at disturbed sites. 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 is mostly confined to steep rocky slopes and small steep-sided valleys. Vegetation comprises hardwood forest with surrounding areas of shrubland and scrub. These areas of forest lie near to indigenous vegetation on adjacent properties and make a valuable contribution to forest bird habitat in the wider area.

SIGNIFICANT AREAS ON THE PROPERTY:

The property was surveyed as part of the District-wide survey of Significant Natural Areas during June 2013. Two areas of native forest, totalling approximately 22 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
568a	Monowai Bottom Block forest	J38: 423-608	15.35	Forest, scrub and tussockland
568b	Monowai Strip Forest	J38: 420-619	7.11	Forest, scrub and tussockland

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

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



Dwarf mistletoe (Korthalsella lindsayi) on Coprosma crassifolia

N

1:10,000

Brothers Road

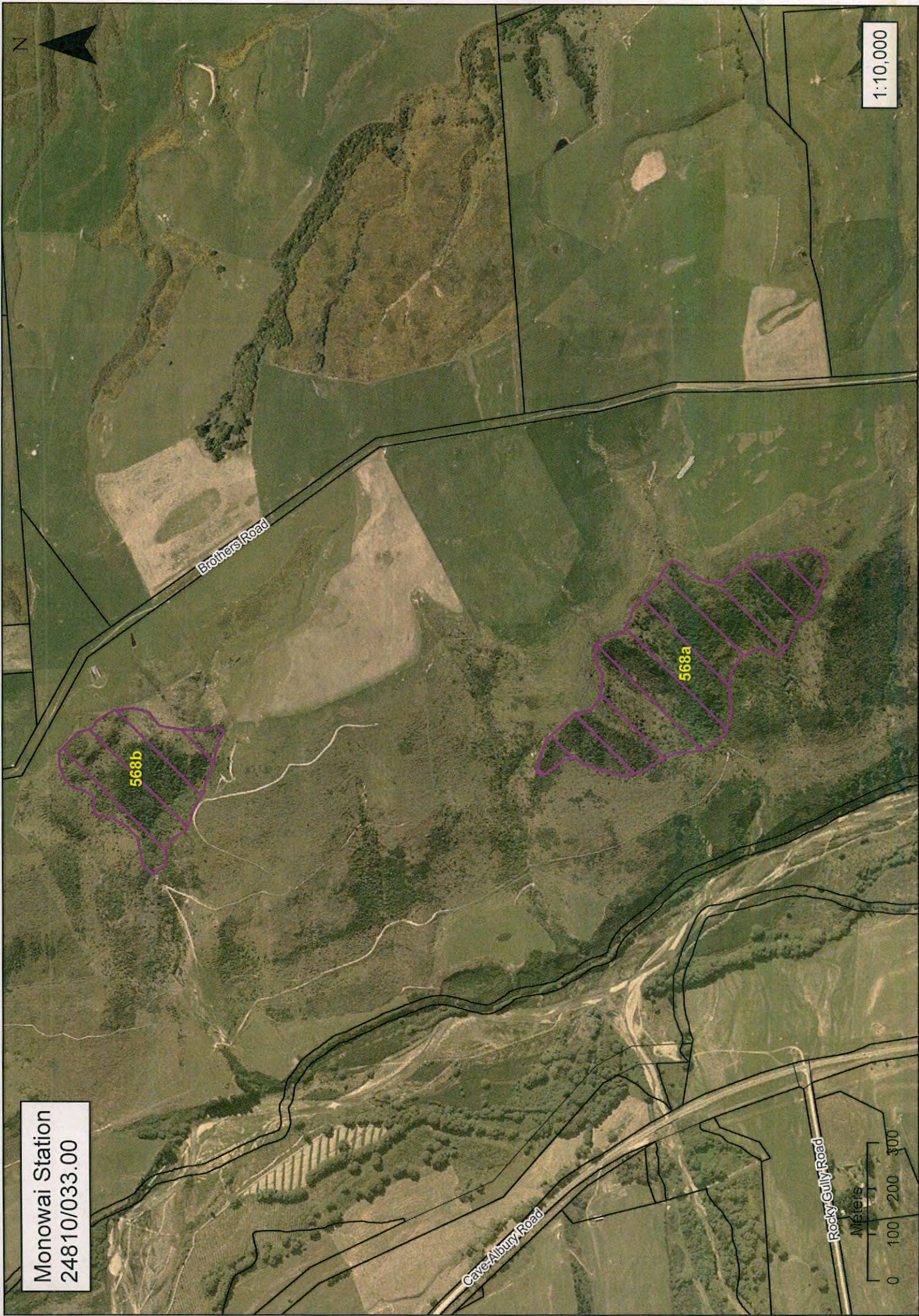
568b

568a

Monowai Station
24810/033.00

Cave-Albury Road

Rocky Gully Road



TIMARU DISTRICT SNA SURVEY

SNAs 568a and b

Area Name: Monowai Station forest	Property: France (Monowai Station)
Ecological District: Fairlie	Nearest Locality: Albury
SNA 568a: Location (central map ref.): J38: 423-608	Area Size (ha): 15.35 Altitude (m): 400-520
SNA 568b: Location (central map ref.): J38: 420-619	Area Size (ha): 7.11 Altitude (m): 400-500
Surveyors: Mike Harding	Survey Time: 4½ hours Survey Date: 18-06-13

General Description:

These two SNAs are located on steep slopes and in steep narrow gullies on the upper western slopes of the Brothers Range, at the south end of the property. They support similar vegetation, so are described together on this survey form.

Plant Communities:

Three main plant communities are present at these two SNAs: hardwood forest, shrubland/scrub and tussockland. These plant communities are described separately below. Naturalized (exotic) species are indicated with an asterisk*.

Hardwood forest:

The forest canopy of the southern area (SNA 568a) is dominated by broadleaf and, on drier slopes, kowhai. Other canopy species are cabbage tree, mapou, *Clematis foetida* and, at the forest margin, mountain akeake. The canopy of the northern area (SNA 568b) is dominated by broadleaf and matipo. Other canopy species are kowhai, cabbage tree, five-finger, matipo, mountain akeake, koromiko, fuchsia and pohuehue. The forest canopy at both areas is low (4-5m tall).

The forest floor is stony and relatively open in both forest patches. Understorey species present are *Coprosma crassifolia*, *Coprosma propinqua*, *Meliccytus* "Blondin", poataniwha, korokio and matipo.

Ground-cover species are necklace fern, *Asplenium appendiculatum*, *Asplenium hookerianum*, button fern, hound's tongue fern, male fern*, *Libertia ixioides*, *Dichondra repens* and seedlings of broadleaf, matipo and *Coprosma* species.



SNA 568b

Shrubland/scrub:

This plant community is present at the margins of the forest patches and ranges from dense scrub to sparse shrubland.

The dominant canopy species present are *Coprosma propinqua*, *Coprosma crassifolia*, *Helichrysum lanceolatum*, korokio, matagouri and scrub pohuehue. Other species are native broom, porcupine shrub, *Melicytus* 'Blondin', poataniwha, scrambling fuchsia, sweet brier* (uncommon), native jasmine, mistletoe (on *Melicytus* 'Blondin'), dwarf mistletoe (on *Coprosma crassifolia* and poataniwha), lawyer, leafless lawyer and native bindweed. Taller species emergent from the scrub canopy in places are kowhai, broadleaf and matipo.

Other species present at the margins or in open areas are gorse*, broom*, tauhinu (uncommon), *Olearia bullata*, bracken, silver tussock, narrow-leaved snow-tussock, blue tussock, golden speargrass and the scrambling *Scandia geniculata*.

Ground-cover species present are necklace fern, *Asplenium appendiculatum*, hanging spleenwort, hound's tongue fern, common shield fern, *Anisotome aromatica*, *Dichondra repens*, *Leptinella* sp., cardamine and *Wahlenbergia gracilis*.

Additional species present at dry rocky sites are *Geranium brevicaule*, patotara, *Crassula* sp., *Coprosma acerosa*, *Carex breviculmis*, oxalis and stonecrop*.



Scattered scrub at the edge of SNA 568b. *Scandia geniculata* is common here at the scrub margins.

Tussockland:

Damp shady slopes at both areas support a low-stature community dominated by narrow-leaved snow-tussock and the giant speargrass, *Aciphylla glaucescens*. Other important species in this plant community are scrambling fuchsia, koromiko, matagouri, mountain akeake, *Coprosma propinqua*, tutu, blue tussock, bracken, prickly shield fern, *Blechnum fluviatile* and *Blechnum penna marina*.

Birds/Fauna Observed:

Native birds observed during this brief survey were bellbird, fantail, grey warbler, silvereve and harrier. Other bird species likely to utilize these habitats are kereru (NZ pigeon) and possibly rifleman and brown creeper. The rocky slopes provide favourable habitat for lizards.

Notable Flora, Fauna and Habitats:

Important features of these areas are the diversity of native plant species (63 vascular species), the presence of an at-risk (declining) plant species (*Coprosma acerosa*), locally uncommon plant species (*Aciphylla glaucescens* and *Scandia geniculata*), the dominance of kowhai in places, the habitat the forest and shrubland provide for native birds and possibly lizards, and the extent of the forest/shrubland communities. Also notable is the diversity of forms of the small-leaved *Melicytus*, presumably representing hybrids between *Melicytus* "Blondin" and *Melicytus alpinus*.



The At-Risk (declining) plant, Coprosma acerosa, is present at rocky sites at both SNAs.

Notable Plant and Animal Pests:

Broom and to a lesser extent gorse are present, mostly at the shrubland margins. Areas of taller forest are weed-free, apart from the occasional presence of male fern. Wallabies are common and the effect of their browse is evident within the forest patches.

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

The boundaries of these three areas are defined by the extent of the stands of taller forest and denser shrubland. However, these boundaries are somewhat arbitrary, as woody species are actively regenerating between the shrubland and forest patches. If left undisturbed, the shrubland and scrub will regenerate to forest, providing one larger area of forest. This vegetation is well buffered by its location on steep rocky slopes where, presumably, earlier clearance has been less effective.

Condition and Management Issues:

The forest and shrubland canopies are in relatively good condition. The forest understorey and ground-cover are very open, in part due to the rocky substrate and in part due to browsing pressure, notably by wallabies. Infestations of broom and gorse at the forest boundaries do not pose a threat to the forest, though may hinder

shrub regeneration. The most important management issue is control of wild animals, notably wallabies and presumably possums.

Property Owner Comment:

Mr France has no intention of clearing the forest and shrubland on these steep slopes.

ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:

Primary Criteria	Rank	Notes
Representativeness	M	Good examples of indigenous vegetation typical of the ecological district and containing a representative range of plant species.
Rarity	M	Supports an at-risk (declining) plant species (<i>Coprosma acerosa</i>) and good populations of two locally uncommon plant species (<i>Scandia geniculata</i> and <i>Aciphylla glaucescens</i>).
Diversity and pattern	M/H	Plant species diversity is relatively high (63 vascular plant species were recorded) for indigenous vegetation in this part of the ecological district.
Distinctiveness/special features	M	The dominance of kowhai, especially on dry rocky slopes, and the range of forms of <i>Melicytus</i> are notable features. Kowhai provides important seasonal food for birds.
Other Criteria		
Size/shape	M/H	These areas are relatively large and well buffered by their location on steep rocky slopes.
Connectivity	M	These areas of forest lie close to other areas of regenerating indigenous forest elsewhere on the Brothers Range.
Long-term Sustainability	M	Control of animal pests (wallaby and possum) will probably 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 of forest appear to have been protected from earlier disturbance by their location and, in the absence of recent disturbance, are regenerating strongly. The steep rocky slopes on which they lie are not suitable for farm development.

Discussion:

These areas meet the District Plan criteria for Significant Natural Areas. Important features of the areas are the diversity of native plant species (63 vascular species), the presence of an at-risk (declining) plant species (*Coprosma acerosa*), locally uncommon plant species (*Aciphylla glaucescens* and *Scandia geniculata*), the dominance of kowhai in places, the habitat the forest and shrubland provide for native birds and possibly lizards, and the extent of the forest/shrubland communities. Also notable is the diversity of forms of the small-leaved *Melicytus*, presumably representing hybrids between *Melicytus* "Blondin" and *Melicytus alpinus*.

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)	
blue tussock.....	<i>Poa colensoi</i>
bracken.....	<i>Pteridium esculentum</i>
broadleaf.....	<i>Griselinia littoralis</i>
broom*.....	<i>Cytisus scoparius</i>
button fern.....	<i>Pellaea rotundifolia</i>
cabbage tree/ti rakau.....	<i>Cordyline australis</i>
cardamine.....	<i>Cardamine debilis</i>
common shield fern.....	<i>Polystichum richardii</i>
dwarf mistletoe.....	<i>Korthalsella lindsayi</i>
five-finger.....	<i>Pseudopanax arboreus</i>
fuchsia.....	<i>Fuchsia excorticata</i>
golden speargrass.....	<i>Aciphylla aurea</i>
gorse*.....	<i>Ulex europaeus</i>
hanging spleenwort.....	<i>Asplenium flaccidum</i>
hound's tongue fern.....	<i>Microsorium pustulatum</i>
korokio.....	<i>Corokia cotoneaster</i>
koromiko.....	<i>Hebe salicifolia</i>
kowhai.....	<i>Sophora microphylla</i>
lawyer.....	<i>Rubus schmidelioides</i>
leafless lawyer.....	<i>Rubus squarrosus</i>
male fern*.....	<i>Dryopteris filix-mas</i>
mapou.....	<i>Myrsine australis</i>
matagouri.....	<i>Discaria toumatou</i>
matipo/kohuhu.....	<i>Pittosporum tenuifolium</i>
mistletoe.....	<i>Ileostylis micranthus</i>
mountain akeake.....	<i>Olearia avicenniifolia</i>
narrow-leaved snow-tussock.....	<i>Chionochloa rigida</i>
native bindweed.....	<i>Calystegia tuguriorum</i>
native broom.....	<i>Carmichaelia aff. australis</i>
native jasmine.....	<i>Parsonsia sp.</i>
necklace fern.....	<i>Asplenium flabellifolium</i>
patotara.....	<i>Leucopogon fraseri</i>
poataniwha.....	<i>Melicope simplex</i>
pohuehue.....	<i>Muehlenbeckia australis</i>
porcupine shrub.....	<i>Melicytus alpinus</i>
prickly shield fern.....	<i>Polystichum vestitum</i>
scrambling fuchsia.....	<i>Fuchsia perscandens</i>
scrub pohuehue.....	<i>Muehlenbeckia complexa</i>
silver tussock.....	<i>Poa cita</i>
stonecrop*.....	<i>Sedum acre</i>
sweet brier*.....	<i>Rosa rubiginosa</i>
tauhinu.....	<i>Ozothamnus leptophyllus</i>
tutu.....	<i>Coriaria sarmentosa</i>