

TIMARU DISTRICT
SIGNIFICANT NATURAL AREAS
SURVEY

FRASER PROPERTY



Report prepared for the Timaru District Council by Mike Harding
May 2008

TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

PROPERTY REPORT

PROPERTY DETAILS:

Owner: Greta Fraser
Valuation Reference: 24660/186.01
Address: Rae Road, Woodbury, RD 21, Geraldine
Location: On Rae Road between Woodbury Road and the Waihi River,
northwest of Woodbury.
Ecological District: Geraldine Ecological District
TDC Land Type: Plains
Land Environment: N2 (well drained plains)

ECOLOGICAL CONTEXT:

The property lies in the northern part of the Geraldine Ecological District, on the outwash plain of the Waihi River. The original vegetation of this area would have been predominantly podocarp-hardwood forest, dominated by totara. Other important canopy species at free-draining (drought-prone) sites were probably matai, narrow-leaved lacebark, lemonwood and five-finger. Damper sites would have supported kahikatea and lowland ribbonwood. The indigenous fauna would 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 podocarp-hardwood forest dominated by totara. Forest on the property is part of a more extensive area of scattered to dense totara-dominated forest which stretches from the foothills at Waihi Gorge to Waihi Bush near Woodbury. This forest is the largest area of totara forest remaining on the Canterbury Plains. The property provides suitable habitat for two threatened bird species: kereru and rifleman (both 'gradual decline') and one newly-discovered plant species: *Melicytus* "Waihi". The property lies within the existing range of the South Canterbury population of long-tailed bat (threat status: 'nationally-endangered').

SIGNIFICANT AREAS ON THE PROPERTY:

The property was surveyed as part of the District-wide survey of Significant Natural Areas during March 2008. The main area of indigenous forest on the property 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 in this report. 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 (criterion vii, page B19), with some management. SNAs are subject to confirmation by Council after regarding the matters listed under Final Considerations (pages B19-B20).

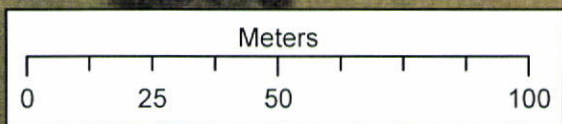
The implication of an area being listed as a SNA is that consent is required from Council for clearance by any means (including burning and spraying with herbicides) or over-planting. This does not normally prevent clearance to prevent shading of buildings, weed control, grazing or the maintenance of tracks and fences. To assist with the protection and management of any SNA, landowners can apply to Council for financial assistance. SNAs will eventually be listed in the District Plan. Any questions regarding the protection, management and use of SNAs should be directed to the District Planner.



Fraser
24660/186.01



605c



1:1,500

TIMARU DISTRICT SNA SURVEY

AREA 605c

Area Name: Fraser Bush

Location (central map reference): J37: 642-868

Ecological District: Geraldine

Surveyors: Mike Harding

Property: Greta Fraser

Nearest Locality: Woodbury

Area Size (ha): 0.91

Altitude (m): 260

Survey Time: 1 hour

Survey Date: 14-03-08

General Description:

This Significant Natural Area (SNA) lies on a terrace on the south side of the Waihi River. It is contiguous with a larger area of similar forest on adjoining properties and part of a regionally important area of lowland totara-matai forest.

Plant Communities:

The main plant community present is totara dominated podocarp-hardwood forest. This plant community is described below. Naturalized (exotic) species are indicated with an asterisk*.

The forest canopy is dominated by totara. Also common in the forest canopy are matai, lancewood, kaikomako, pohuehue and native jasmine. Other canopy species occasionally present are narrow-leaved lacebark, marbleleaf, one pokaka, five-finger, lemonwood, *Clematis foetida* and one kahikatea.

The forest understorey is relatively open. Plant species commonly present are poataniwha, yellowwood, *Coprosma crassifolia*, *Coprosma rotundifolia*, *Coprosma rigida*, Darwin's barberry*, bush lawyer and saplings of totara. Less common understorey plant species present are rohutu, mapou, broadleaf, matipo, weeping mapou, elderberry*, hawthorn*, holly* and saplings of matai.

The ground cover is relatively bare within the main patches of trees and dominated by pasture grasses in the forest openings. Important ground cover species are bidibid, hairy pennywort, pennywort, foxglove* and pasture grasses. Other ground cover species present are lemon balm*, black nightshade*, prickly shield fern, necklace fern, male fern*, violet*, and seedlings of kaikomako, lancewood, Darwin's barberry* pohuehue, native jasmine, *Clematis marata*, wineberry, mahoe, elderberry*, sycamore* and one seedling of *Melicytus* "Waihi". One patch of ground ivy* is present at the western edge of the area, near the vegetable garden.

Also present on the forest margins are *Coprosma propinqua*, hawthorn*, blackberry*, gorse*, Chilean flame creeper* and one adult plant of *Melicytus* "Waihi".

Birds/Fauna Observed:

Native birds observed during this brief inspection were fantail, bellbird, silvereye, grey warbler, kereru and harrier.

Notable Flora, Fauna and Habitats:

Notable features of this SNA are the presence and dominance of podocarps (mostly totara), the diversity of other tree species in the forest canopy, the presence of a threatened plant species (*Melicytus* "Waihi"), the habitat the area provides for threatened bird species (kereru and probably rifleman) and the contribution the area makes to the network of forest bird habitat in the Woodbury-Waihi Gorge area.

Notable Plant and Animal Pests:

The most important plant pests present are Darwin's barberry, holly, hawthorn and ground ivy. The three woody plant pests are capable of becoming dominant in indigenous forest remnants. Ground ivy can become dominant on the forest floor. Elderberry, sycamore, Chilean flame creeper, lemon balm and the native climber pohuehue could also pose a threat. Animal pests were not surveyed.

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

The area of forest has a good compact shape and adjoins other areas of forest on two boundaries. It is fenced and lightly grazed by sheep. The forest is part of a much larger area of scattered forest on the plain between Woodbury and Waihi Gorge.

Condition and Management Issues:

The forest canopy is in good condition and has a locally-unusual dominance of lancewood and kaikomako. The forest understorey is quite open, though still supports a number of typical understorey species. Some trees have been damaged by recent snowfalls, as have trees in other patches of forest in the area. Important management issues are control of woody weeds, removal of the ground ivy infestation and protection of the adult plant of *Melicytus* "Waihi".

ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:

Primary Criteria	Rank	Notes
Representativeness	M/H	A good example of indigenous forest typical of the ecological district.
Rarity	M/H	Supports a healthy adult plant of <i>Melicytus</i> "Waihi" (threat status likely to be 'nationally critical') and provides habitat for kereru and probably rifleman (threat status 'gradual decline').
Diversity and pattern	M	Species diversity is less than typical for this forest type, though the dominance of lancewood and kaikomako in the forest canopy is unusual.
Distinctiveness/special features	M	A relatively dense stand of trees with good potential for further restoration.
<hr/> Other Criteria		
Size/shape	M	A small area but with a good shape for management.
Connectivity	M/H	Makes an important contribution to the network of forest habitat in the area.
Long-term Sustainability	M	Some management will be necessary for the long-term ecological viability of the area.

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

This area of forest has been informally protected and managed by the landowner. It provides some limited grazing and adds considerable amenity value to the property.

Discussion:

This area of forest easily meets the District Plan criteria for a Significant Natural Area. Important features of the area are the presence and dominance of podocarps (mostly totara), the diversity of other tree species in the forest canopy, the presence of a threatened plant species (*Melicytus* "Waihi"), the habitat the area provides for threatened bird species (kereru and probably rifleman) and the contribution the area makes to the network of forest bird habitat in the Woodbury-Waihi Gorge area.



Melicytus "Waihi"

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>
black nightshade*	<i>Solanum nigrum</i>
broadleaf	<i>Griselinia littoralis</i>
bush lawyer	<i>Rubus cissoides</i>
Chilean flame creeper*	<i>Tropaeolum speciosum</i>
Darwin's barberry*	<i>Berberis darwinii</i>
elderberry*	<i>Sambucus nigra</i>
five-finger	<i>Pseudopanax arboreus</i>
foxglove*	<i>Digitalis purpurea</i>
gorse*	<i>Ulex europaeus</i>
ground ivy*	<i>Glechoma hederacea</i>
hairy pennywort	<i>Hydrocotyle moschata</i>
hawthorn*	<i>Crataegus monogyna</i>
holly*	<i>Ilex aquifolium</i>
kahikatea/white pine	<i>Dacrycarpus dacrydioides</i>
kaikomako	<i>Pennantia corymbosa</i>
lancewood	<i>Pseudopanax crassifolius</i>
lemon balm*	<i>Melissa officinalis</i>
lemonwood	<i>Pittosporum eugeniioides</i>
lowland ribbonwood	<i>Plagianthus regius</i>
mahoe/whiteywood	<i>Melicotus ramiflorus</i>
male fern*	<i>Dryopteris filix-mas</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>
narrow-leaved lacebark	<i>Hoheria angustifolia</i>
native jasmine	<i>Parsonsia</i> sp.
necklace fern	<i>Asplenium flabellifolium</i>
pennywort	<i>Hydrocotyle</i> sp.
poataniwha	<i>Melicope simplex</i>
pohuehue	<i>Muehlenbeckia australis</i>
pokaka	<i>Elaeocarpus hookerianus</i>
prickly shield fern	<i>Polystichum vestitum</i>
rohutu	<i>Lophomyrtus obcordata</i>
sycamore*	<i>Acer pseudoplatanus</i>
totara	<i>Podocarpus totara</i>
violet*	<i>Viola odorata</i>
weeping mapou	<i>Myrsine divaricata</i>
wineberry	<i>Aristotelia serrata</i>
yellowwood	<i>Coprosma linariifolia</i>