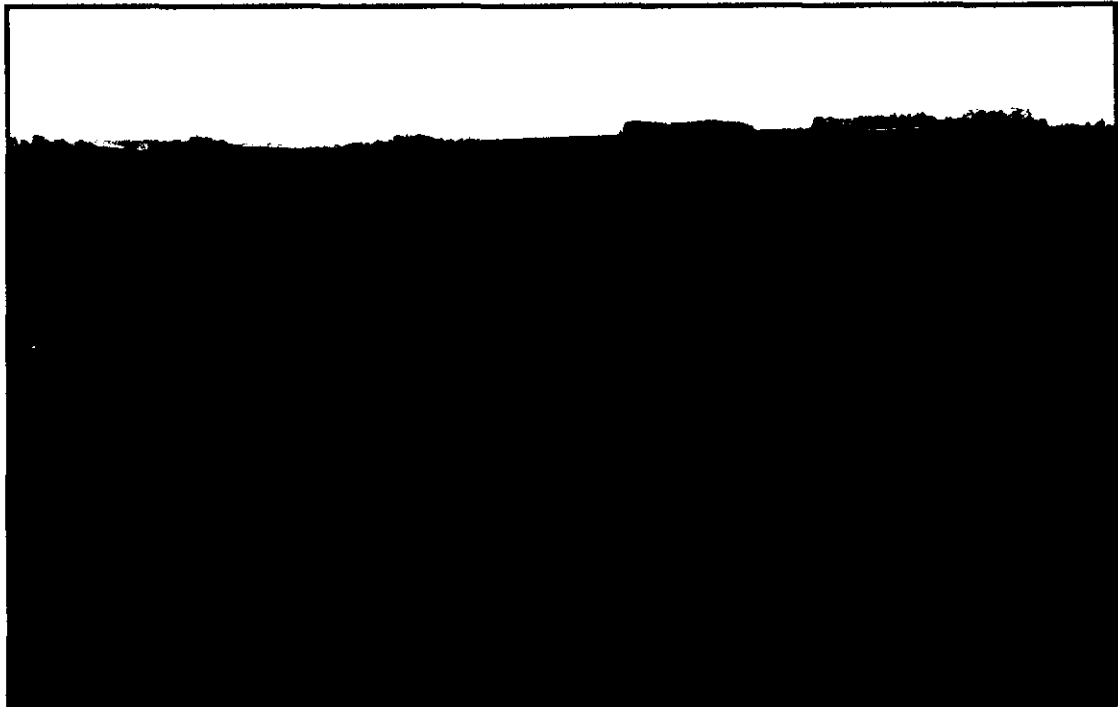


# **TIMARU DISTRICT**

## **SIGNIFICANT NATURAL AREAS SURVEY**

### **SINCLAIR PROPERTY**



**Report prepared for Timaru District Council by Mike Harding  
September 2008**

# TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

## PROPERTY REPORT

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### PROPERTY DETAILS:

**Owner:** ..... Ian and Margot Sinclair  
**Valuation Reference:** ..... 24680/003.00  
**Address:** ..... South Boundary Road, Upper Waitohi  
**Location:** ..... Rolling hill country between Upper Waitohi and Hilton  
**Ecological District:** ..... Geraldine Ecological District.  
**TDC Land Type:** ..... Soft Rock Hills and Downs.  
**Land Environment:** ..... N3 (eastern South Island undulating plains and hills).

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### ECOLOGICAL CONTEXT:

The property covers dissected rolling hill country between Hilton and Upper Waitohi in South Canterbury, comprising loess-covered hills. It includes the catchments of small streams that flow east to the Kakahu River. The property lies in the central inland part of Geraldine Ecological District.

It is likely that the original vegetation of this area was predominantly mixed podocarp-hardwood forest with smaller areas of scrub, shrubland, wetland and limestone bluff flora. This is the part of the Geraldine Ecological District with the largest remaining areas of indigenous forest. Nevertheless, indigenous forest is still generally confined to small remnants in gullies and around limestone bluffs, with some larger areas of younger regenerating forest.

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. The property lies near the known range of the South Canterbury population of long-tailed bat. This species is regarded as nationally-endangered.

Indigenous vegetation on the property comprises one area of kanuka forest, smaller patches of regenerating hardwood forest, a small grove of totara and kowhai trees, and scattered cabbage trees. The property lies approximately two kilometres from a protected area of indigenous forest at Waitohi Scenic Reserve and near to other areas of indigenous forest.

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### SIGNIFICANT AREAS ON THE PROPERTY:

The property was surveyed as part of the District-wide survey of Significant Natural Areas during August 2008. Most parts of the property were visited and assessed. One area, totalling approximately 3.95 hectares, is regarded as a Significant Natural Area (SNA) when assessed against the District Plan criteria. This SNA is listed in the table below.

Area No.	Area Name	Central grid reference	Aprox. size (ha)	Vegetation/habitat type
226	Sinclair Kanuka Forest	J38: 619-690	3.95	kanuka forest

This SNA is illustrated on the attached aerial photograph and described in greater detail on the Area Inspection 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 (criterion vii, page B19).

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 an SNA is that consent is required from Council for clearance of indigenous vegetation or habitat by any means (including burning and spraying with herbicides) or over-planting. 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. It is expected that SNAs will eventually be listed in the District Plan.

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**OTHER AREAS INSPECTED ON THE PROPERTY:**

Other areas of indigenous vegetation and habitat on the property were inspected but are not regarded as significant when assessed against the criteria on pages B18-B20 of the Timaru District Plan. Failure of an area to meet the significance criteria does not necessarily mean that it is not important for nature conservation or the protection of indigenous biodiversity; it simply means that the area (as assessed at this time) does not meet the criteria in the Timaru District Plan.

Other areas of indigenous vegetation on the property include an area of regenerating hardwood forest east of SNA 226, small patches of cabbage trees along streams and a small grove of mature totara and kowhai in pasture adjacent to the southern boundary of the property (viewed from a distance). These areas are too small and/or modified to meet the District Plan criteria. However, they do have potential value and, if protected or managed, may eventually become significant. For example, the mature totara and kowhai trees are likely to provide an important food source for native birds in the wider area.

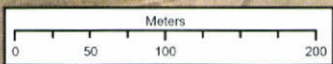


Sinclair  
24680/003.00

Fletcher Road

South Boundary Road

226



15,000

# TIMARU DISTRICT SNA SURVEY

AREA 226

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<b>Area Name:</b> Sinclair Kanuka Forest	<b>Property:</b> Ian and Margot Sinclair	
<b>Location (central map reference):</b> J38: 619-690	<b>Nearest Locality:</b> Hilton	
<b>Ecological District:</b> Geraldine	<b>Area Size (ha):</b> 3.95	<b>Altitude (m):</b> 120-160
<b>Surveyors:</b> Mike Harding	<b>Survey Time:</b> 1½ hours	<b>Survey Date:</b> 13-08-08

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## General Description:

This SNA occupies a moderately-steep south-facing slope in a small gully on the rolling hill country between Hilton and Upper Waitohi. The SNA is long and narrow and adjoins a pine plantation on its long southern boundary.

## Plant Communities:

The SNA comprises tall kanuka forest. This forest is described in detail below. Naturalized (exotic) species are indicated with an asterisk\*.

The forest canopy is dominated by kanuka. Trunk diameters (at breast height) of the larger trees are between 40 and 50 cm. Other canopy and sub-canopy species are cabbage tree, mahoe, pohuehue and occasionally lancewood, five-finger and lemonwood. At the eastern end of the forest there is a nice grove of mature lancewood trees (with trunk diameters between 22 and 34 cm) and single totara (43 cm) and pokaka (42 cm) trees.

The forest understorey is dominated by mahoe and in places *Coprosma propinqua*, *Coprosma rhamnoides*, poroporo and elderberry\*. Other understorey species are lemonwood, mapou, *Coprosma crassifolia*, *Coprosma tayloriae*, *Coprosma propinqua*Xrobusta, *Coprosma rotundifolia*, matipo, pohuehue, lawyer and native jasmine.

Important ground cover species are necklace fern, moss and seedlings of cabbage tree and mahoe. Also present are pennywort, foxglove\*, bidibid, *Hypolepis ambigua*, *Asplenium appendiculatum*, hound's tongue fern, *Blechnum fluviatile*, *Blechnum penna-marina*, prickly shield fern, male fern\*, a sedge (*Carex* sp.) and seedlings of mapou, fuchsia and lemonwood.

The forest canopy at the central part of the SNA is more open. The ground-cover here is dominated by grass\*, pohuehue, blackberry\* and thousand-leaved fern.

Species commonly present in forest openings or on the forest margin are thousand-leaved fern, blackberry\*, gorse\*, broom\* and black nightshade\*.

## Birds/Fauna Observed:

Native birds observed during this brief inspection were grey warbler, silvereve and fantail.

## Notable Flora, Fauna and Habitats:

Notable features of this SNA are the presence of species representative of the original forest canopy (totara, pokaka, lemonwood and cabbage tree), the diversity of the ground-cover vegetation, the size of the area and the contribution the area makes to the network of fauna habitat in the wider area.

## Notable Plant and Animal Pests:

Elderberry and pohuehue are the most problematic species present. Elderberry is relatively common in the forest understorey and its presence here poses a risk to other forest remnants as its fleshy fruits are readily dispersed by birds. The native climbing pohuehue can smother mature trees, especially trees on the forest margin or at canopy gaps. Other introduced plants present do not pose a significant threat to the forest. Animal pests were not surveyed, though possums are likely to be present.

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

This SNA is long and narrow, though it is securely fenced and has not been grazed for many years. It adjoins an un-grazed pine plantation on its long southern boundary and is buffered by its location on a damper south-facing slope. It adjoins pasture on its northern boundary. This SNA does not adjoin other areas of indigenous vegetation, though lies within one kilometre of a larger area of regenerating forest (SNA 229) and approximately two kilometres from an important indigenous forest remnant at Waitohi Scenic Reserve.

**Condition and Management Issues:**

This area of forest is in good condition, as indicated by the health of the forest understorey and ground-cover. Its condition is a credit to the landowners, who have protected it from grazing for many years. The main management priorities are continued possum control and possibly targeted weed control (pohuehue and elderberry).

**Property Owner Comment:**

The owners are keen to retain and protect the forest.

**ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:**

<b>Primary Criteria</b>	<b>Rank</b>	<b>Notes</b>
Representativeness	<b>M/H</b>	A good example of indigenous forest typical of this part of the ecological district and containing species representative of the original forest canopy.
Rarity	<b>M</b>	No rare plant species are present, though the forest almost certainly provides habitat for threatened bird species (kereru/NZ pigeon and possibly rifleman).
Diversity and pattern	<b>M</b>	A relatively diverse range of understorey and ground-cover species, though diversity is reduced from that originally present.
Distinctiveness/special features	<b>L/M</b>	The presence of totara and pokaka trees is notable.
<b>Other Criteria</b>		
Size/shape	<b>M/H</b>	A moderate-sized and area for this ecological district, which is well buffered/protected.
Connectivity	<b>M</b>	Does not adjoin other areas of indigenous vegetation, though is part of a network of fauna habitat in the area.
Long-term Sustainability	<b>M</b>	Some pest control is probably required to maintain the ecological values of the area in the long term.

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

This area has been deliberately set aside and informally protected by the landowners. It is not grazed and has limited potential for farm development.

**Discussion:**

This area meets the District Plan criteria for a Significant Natural Area. Important features of the area are the presence of species representative of the original forest canopy (totara, pokaka, lemonwood and cabbage tree), the diversity of the ground-cover vegetation, the size of the area and the contribution the area makes to fauna habitat in the wider area.

### 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>
broom* .....	<i>Cytisus scoparius</i>
cabbage tree/ti rakau .....	<i>Cordyline australis</i>
elderberry* .....	<i>Sambucus nigra</i>
five-finger .....	<i>Pseudopanax arboreus</i>
foxglove* .....	<i>Digitalis purpurea</i>
fuchsia .....	<i>Fuchsia excorticata</i>
gorse* .....	<i>Ulex europaeus</i>
hound's tongue fern .....	<i>Microsorium pustulatum</i>
kanuka .....	<i>Kunzea ericoides</i>
kowhai .....	<i>Sophora microphylla</i>
lancewood .....	<i>Pseudopanax crassifolius</i>
lawyer .....	<i>Rubus schmidelioides</i>
lemonwood .....	<i>Pittosporum eugenioides</i>
mahoe/whiteywood .....	<i>Melicactus ramiflorus</i>
male fern* .....	<i>Dryopteris filix-mas</i>
mapou .....	<i>Myrsine australis</i>
matipo/kohuhu .....	<i>Pittosporum tenuifolium</i>
native jasmine .....	<i>Parsonsia</i> sp.
necklace fern .....	<i>Asplenium flabellifolium</i>
pennywort .....	<i>Hydrocotyle</i> sp.
pohuehue .....	<i>Muehlenbeckia australis</i>
pokaka .....	<i>Elaeocarpus hookerianus</i>
poroporo .....	<i>Solanum laciniatum</i>
prickly shield fern .....	<i>Polystichum vestitum</i>
thousand-leaved fern .....	<i>Hypolepis millefolium</i>
totara .....	<i>Podocarpus totara</i>