

**TIMARU DISTRICT**  
**SIGNIFICANT NATURAL AREAS**  
**SURVEY**

**CHRISTEY PROPERTY**



**Report prepared for Timaru District Council by Mike Harding**  
**August 2012**

# TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

## PROPERTY REPORT

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### PROPERTY DETAILS:

**Owner:** ..... Kevin Christey  
**Valuation References:** .... 24810/002.04  
**Address:** ..... 46 Langley Downs, RD, Pleasant Point  
**Location:** ..... On northeast slopes of the Brothers Range  
**Ecological District:** ..... Geraldine Ecological District  
**TDC Land Type:** ..... Hard Rock Hills and Downs  
**Land Environment:** ..... mostly E3.1a (Central Dry Foothills)

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### ECOLOGICAL CONTEXT:

The property lies on the northeast slopes of the Brothers Range and at the boundary of Geraldine and Fairlie ecological districts. The original vegetation of this area would have been predominantly podocarp-hardwood forest, with localized areas of kowhai-kanuka 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 confined to an incised steep-sided valley. It comprises core areas of indigenous hardwood forest with totara. These areas of forest adjoin other native forest on adjacent properties and make a valuable contribution to forest bird habitat in the wider area.

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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 July 2012. Two areas of native forest, totalling approximately two 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
360c	Christey Forest	J38: 446-677	1.84	Podocarp-hardwood forest
360d		J38: 448-678	0.44	Podocarp-hardwood 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.



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 SIGNIFICANT NATURAL AREAS ON THE PROPERTY:**

There are two patches of kanuka forest on drier northwest-facing slopes at the southern part of the property. These areas are contiguous with forest on the adjacent (Shallard) property and are described in detail in the report for that area (SNA 360b). The boundary between the two properties within the kanuka forest was difficult to determine during the field survey. However, the kanuka forest has a relatively open understorey and includes totara saplings and a small population of the at-risk (naturally uncommon) fierce lancewood (*Pseudopanax ferox*). These two areas of kanuka forest meet the significance criteria for SNAs.



*Fierce lancewood (Pseudopanax ferox) in SNA 360b*





1:5,000

Langley Downs Road

360e

360d

360c

360b

360a

Christey Property  
24810/002.04

5776



## TIMARU DISTRICT SNA SURVEY

## SNAs 360c and 360d

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<b>Area Name:</b> Christey Forest	<b>Property:</b> Kevin Christey
<b>Ecological District:</b> Geraldine	<b>Nearest Locality:</b> Raincliff
<b>AREA 360c: Location</b> (central map ref.): J38: 446-677	<b>Area Size (ha):</b> 1.84 <b>Altitude (m):</b> 280-320
<b>AREA 360d: Location</b> (central map ref.): J38: 448-678	<b>Area Size (ha):</b> 0.44 <b>Altitude (m):</b> 270-300
<b>Surveyors:</b> Mike Harding and Kevin Christey (part)	<b>Survey Time:</b> 2 hours <b>Survey Date:</b> 17-07-12

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### General Description:

These two SNAs lie on steep south- to southeast-facing slopes of a deeply incised valley on the northern slopes of the Brothers Range. The two areas are separated by an area of lower vegetation including a hazelnut orchard. Both areas adjoin other areas of indigenous forest up-valley (SNA 360b) and down-valley (SNA 360e) on adjacent properties.

### Plant Communities:

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

The canopy species of these two areas of forest are totara, matipo, five-finger, kowhai, mapou, mahoe, broadleaf, cabbage tree, lancewood, lemonwood, kanuka, yellowwood, narrow-leaved lacebark, wineberry, fuchsia, marbleleaf, bush lawyer, native jasmine and pohuehue. Exotic tree species present, mostly on the valley floor are elm\*, sycamore\* and crack willow\*.

Species present in the forest understorey are mapou, mahoe, matipo, *Coprosma rotundifolia*, *Coprosma propinqua*, narrow-leaved lacebark, kowhai, weeping mapou, poataniwha, *Helichrysum lanceolatum* and poroporo.

Forest-floor species are prickly shield fern, common shield fern, hound's tongue fern, button fern, hen and chickens fern, hanging spleenwort, necklace fern, *Asplenium hookerianum*, *Asplenium richardii*, *Asplenium appendiculatum*, male fern\*, bush lily, *Libertia ixioides*, wild strawberry\* (in SNA 360d), pennywort and seedlings of kowhai, mahoe and native jasmine.

Species commonly present at forest margins and in forest openings are *Coprosma propinqua*, broom\*, gorse\*, Himalayan honeysuckle\*, bracken, foxglove\*, blackberry\* and pohuehue.

Additional species present near the stream are koromiko, native broom, pate, elderberry\*, Khasia berry\*, kiokio, *Carex secta*, *Carex geminata*, and the locally-uncommon river-terrace herb *Australina pusilla*.

### Birds/Fauna Observed:

Native birds observed during this brief survey were bellbird, grey warbler, fantail, rifleman and kereru (NZ pigeon).

### Notable Flora, Fauna and Habitats:

Important features of these areas are the presence of native forest in a part of the district where forest cover is substantially depleted, the presence of podocarp trees (totara), locally-uncommon plant species (*Australina pusilla*), the habitat the areas provide for forest birds including an at-risk (declining) species (rifleman) and the position of the areas adjacent to a larger area of native forest.

### Notable Plant and Animal Pests:

The most important plant pests present are sycamore, elm and Khasia berry. These species have the potential to either invade forest openings or to over-top and smother the native forest canopy. Other plant pests, such as broom, gorse, Himalayan honeysuckle and elderberry, pose less of a threat to the intact native forest.

Animal pests were not surveyed.

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

These two areas adjoin other areas of native forest and are separated by a narrow area of modified vegetation. They are well buffered by their locations on steep shaded slopes and at the upper margin by secure fences and pine plantations. Areas along the lower (valley-floor) boundary are grazed and support planted trees. Mt Christey advises that the valley floor terraces are prone to occasional flooding.

**Condition and Management Issues:**

The core areas of native forest on the steeper slopes are in good condition. The lower boundaries of the areas are affected by disturbance associated with floods and exotic trees. The most important management issues are removal of invasive tree species (especially sycamore) and protection of the lower forest margins from other disturbance.

**ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:**

Primary Criteria	Rank	Notes
Representativeness	M/H	Good examples of indigenous forest typical of that remaining in the ecological district and supporting a representative range of canopy species, including totara.
Rarity	M	Provides habitat for an at-risk (declining) bird species (rifleman) and one locally-uncommon plant species ( <i>Australina pusilla</i> ).
Diversity and pattern	M	Plant species diversity is moderate.
Distinctiveness/special features	L/M	
<b>Other Criteria</b>		
Size/shape	M	Small to moderate-sized areas that are well buffered.
Connectivity	M	The areas adjoin other native forest and provide a link between those areas.
Long-term Sustainability	M	Some plant pest control is likely to be necessary to maintain ecological values of the areas in the long term.

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

These two areas have been protected from clearance by the landowner. The steep slopes they occupy have little potential for further farm development.

**Discussion:**

These areas meet the District Plan criteria for Significant Natural Areas. Important features of the areas are the presence of native forest in a part of the district where forest cover is substantially depleted, the presence of podocarp trees (totara), locally-uncommon plant species (*Australina pusilla*), the habitat the areas provide for forest birds including an at-risk (declining) species (rifleman) and the position of the areas adjacent to a larger area of native forest.

### 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>
bush lawyer.....	<i>Rubus cissoides</i>
bush lily.....	<i>Astelia fragrans</i>
common shield fern.....	<i>Polystichum richardii</i>
crack willow*	<i>Salix fragilis</i>
elderberry*	<i>Sambucus nigra</i>
elm*	<i>Ulmus xhollandica</i>
five-finger.....	<i>Pseudopanax arboreus</i>
foxglove*	<i>Digitalis purpurea</i>
fuchsia.....	<i>Fuchsia excorticata</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>
hound's tongue fern.....	<i>Microsorium pustulatum</i>
kanuka.....	<i>Kunzea ericoides</i>
Khasia berry*	<i>Cotoneaster simonsii</i>
kiokio.....	<i>Blechnum novae-zelandiae</i>
koromiko.....	<i>Hebe salicifolia</i>
kowhai.....	<i>Sophora microphylla</i>
lancewood.....	<i>Pseudopanax crassifolius</i>
lemonwood.....	<i>Pittosporum eugenioides</i>
mahoe/whiteywood.....	<i>Melicytus ramiflorus</i>
male fern*	<i>Dryopteris filix-mas</i>
mapou.....	<i>Myrsine australis</i>
marbleleaf/putaputaweta.....	<i>Carpodetus serratus</i>
matipo/kohuhu.....	<i>Pittosporum tenuifolium</i>
narrow-leaved lacebark.....	<i>Hoheria angustifolia</i>
native broom.....	<i>Carmichaelia aff. australis</i>
native jasmine.....	<i>Parsonsia sp.</i>
necklace fern.....	<i>Asplenium flabellifolium</i>
pate.....	<i>Schefflera digitata</i>
pennywort.....	<i>Hydrocotyle sp.</i>
poataniwha.....	<i>Melicope simplex</i>
pohuehue.....	<i>Muehlenbeckia australis</i>
poroporo.....	<i>Solanum laciniatum</i>
prickly shield fern.....	<i>Polystichum vestitum</i>
sycamore*	<i>Acer pseudoplatanus</i>
totara.....	<i>Podocarpus totara</i>
weeping mapou.....	<i>Myrsine divaricata</i>
wild strawberry*	<i>Potentilla vesca</i>
wineberry.....	<i>Aristotelia serrata</i>
yellowwood.....	<i>Coprosma linariifolia</i>