

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

**PARR PROPERTY**  
**ROKONUI**



**Report prepared for the Timaru District Council by Mike Harding**  
**December 2007**

# TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

## PROPERTY REPORT

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### PROPERTY DETAILS:

**Owner:** ..... Jim Parr  
**Valuation Reference:** ..... 24660/207.00  
**Address:** ..... Downs Road, Geraldine  
**Location:** ..... On a steep scarp and on an adjacent terrace on the southwest side of the Geraldine Downs, adjacent to Pleasant Valley Road.  
**Ecological District:** ..... Geraldine Ecological District  
**TDC Land Type:** ..... Soft Rock Hills and Downs  
**Land Environment:** ..... N3 (downlands of South Canterbury and coastal Otago)

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### ECOLOGICAL CONTEXT:

The property lies on the eastern edge of the Geraldine Ecological District, on the western scarp of the Geraldine Downs. The original vegetation of this area would have been predominantly podocarp-hardwood forest, dominated by totara, matai and kahikatea emergent over a hardwood canopy. Important canopy hardwood species would probably have been narrow-leaved lacebark, pokaka, kowhai, lemonwood, five-finger, broadleaf and mahoe. 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.

Two areas of hardwood forest and one area of kowhai treeland are present on the property. These are mostly areas of regenerating forest, though small parts of the hardwood forest on the eastern part of the scarp and the large kowhai trees may be remnants of the original forest. The main area of hardwood forest is quite diverse and supports several locally uncommon species. These areas of forest are part of a more extensive collection of scattered patches of forest and treeland on the Geraldine Downs.

Areas of forest and treeland on the Geraldine Downs may provide roost sites (though maybe only occasionally used) for long-tailed bat (a 'nationally endangered' species). Long-tailed bat have been recorded nearby in Talbot Forest and in the Te Moana valley.

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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 2007. Two areas of forest on the property are regarded as Significant Natural Areas (SNAs) when assessed against the District Plan criteria.

Area No.	Area Name	Central grid reference	Aprox. size (ha)	Vegetation/habitat type
32c	Parr Regenerating Forest	J37: 648-802	1	Hardwood forest
32d	Parr Scarp Forest	J37: 644-804	5.3	Hardwood forest

These SNAs are illustrated on the attached aerial photograph and described in greater detail on the Area Inspection Forms in this report. Note that the boundaries of the SNAs are indicative, rather than precise. These SNAs meet the ecological criteria in the Timaru District Plan (criteria i-vi, pages B18-B19) and are considered to be sustainable in the long term

(criterion vii, page B19). The 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 by any means (including burning and spraying with herbicides) or over-planting. This does not normally prevent clearance to prevent shading of buildings, the maintenance of tracks and fences, or grazing. 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.

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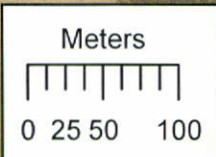
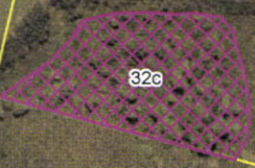
**OTHER AREAS INSPECTED ON THE PROPERTY:**

One other small area of indigenous vegetation on the property was inspected but is not regarded as significant when assessed against the criteria on pages B18-B20 of the Timaru District Plan. This area is the narrow strip of flax and associated vegetation in a small gully just west of the northern end of Downs Road. While the presence of flax (a locally-uncommon species) is notable the area is too small and isolated to meet the significance criteria in the District Plan.

Failure of an area to meet the significance criteria does not 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. Protection of this area of flax is desirable.



Rokonui (Parr Property)  
24660/207.00



1:5,000



# TIMARU DISTRICT SNA SURVEY

AREA 32c

**Area Name:** Parr Regenerating Forest

**Location (central map reference):** J37: 648-802

**Ecological District:** Geraldine

**Surveyors:** Mike Harding

**Property:** Parr

**Nearest Locality:** Geraldine

**Area Size (ha):** 1

**Altitude (m):** 180

**Survey Time:** ¼ hour

**Survey Date:** 28-08-07

## General Description:

This small area of regenerating forest lies on the southwest scarp of the low rolling hills of the Geraldine Downs, near Pleasant Valley Road. Only a brief inspection of the forest exterior was undertaken.

## Plant Communities:

This Area comprises regenerating hardwood forest, surrounded by gorse scrub. This plant community is described below. Naturalized (exotic) species are indicated with an asterisk\*.

The canopy of this small area of forest is dominated by matipo, kanuka and pohuehue. Other canopy species present include mahoe and wineberry. The low-stature vegetation on the margins of this forest is dominated by gorse\*. Other species present here are broom\*, poroporo, blackberry\*, bracken, foxglove\*, pohuehue and Chilean flame creeper\*.

## Notable Flora, Fauna and Habitats:

No notable species were observed. Important features of the Area are its location adjacent to other areas of indigenous vegetation and the contribution it makes to fauna habitat in the area.

## Notable Plant and Animal Pests:

Chilean flame creeper and the native climber pohuehue are the most important plant pests present. Both species can smother young trees, especially in small areas of forest. The gorse scrub on the forest margins is performing a useful role by buffering the forest from disturbance and providing suitable conditions for the regeneration of native woody species.

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

The area is fenced from grazing. It is well buffered by its location on a south-facing slope and by dense gorse scrub. It adjoins, at its southwest corner, indigenous vegetation on an adjoining property.

## Condition and Management Issues:

This regenerating forest appears to be in relatively good condition. Important management issues are control of any plants that threaten to smother the indigenous trees (Chilean flame creeper, pohuehue and possibly old man's beard which is present nearby) and the continued protection of the regenerating forest from animal pests (possums and pigs) and grazing.

## ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:

Primary Criteria	Rank	Notes
Representativeness	M	A typical example of regenerating indigenous forest.
Rarity	L/M	Unlikely to support any rare or threatened species, though may provide some limited habitat for kereru (threat status: gradual decline).
Diversity and pattern	L	Much depleted species diversity.
Distinctiveness/special features	M	Part of a much more extensive sequence of indigenous forest on the southwest scarp of the Geraldine Downs.
<b>Other Criteria</b>		
Size/shape	M	Small but well buffered.
Connectivity	M	Adjoins other indigenous forest and is part of a network of fauna habitat on the Geraldine Downs.
Long-term Sustainability	M	Regeneration of indigenous species will continue with little management.

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

The Area has been informally protected by the landowner. Its protection may limit the opportunities for farm development, though its location and aspect do not favour intensive development.

**Discussion:**

This Area only just meets the District Plan criteria for a Significant Natural Area. It does not support any notable species or habitats, but makes a useful contribution to the network of fauna habitat on the Geraldine Downs.

# TIMARU DISTRICT SNA SURVEY

AREA 32d

**Area Name:** Parr Scarp Forest

**Location (central map reference):** J37: 644-804

**Ecological District:** Geraldine

**Surveyors:** Mike Harding

**Property:** Parr

**Nearest Locality:** Geraldine

**Area Size (ha):** 5.3

**Altitude (m):** 160-200

**Survey Time:** 2½ hours

**Survey Date:** 28-08-07

## General Description:

This area of forest lies on the steep scarp and adjoining terrace at the western edge of the low rolling hills of the Geraldine Downs, adjacent to Pleasant Valley Road.

## Plant Communities:

The most extensive indigenous plant community present is mixed hardwood forest on the steep slopes of the scarp. Adjacent to this, on a terrace of the Te Moana River, is a treeland of scattered large kowhai trees. These plant communities are described separately below. Naturalized (exotic) species are indicated with an asterisk\*.

### Hardwood Scarp Forest:

This plant community ranges from low-stature regenerating hardwood forest in the west to taller and more diverse hardwood forest in the east. The western forest is dominated by mahoe. Other canopy species present here are matipo, pohuehue, cabbage tree, mapou, five-finger, broadleaf, kanuka, mountain akeake, bush lawyer, koromiko and lancewood. Also present are patches dominated by young mahoe, Himalayan honeysuckle\* and blackberry\*. Several deciduous exotic trees and occasional pine trees are present. One clump of old man's beard\* is present in an exotic tree.

The denser forest towards the eastern end of the scarp is dominated by five-finger, mahoe and matipo. Other canopy species present are kanuka, lancewood, mapou, cabbage tree, kowhai, broadleaf, yellowwood and fuchsia. Trunk diameters (at breast height) of the kanuka trees range between 20 and 30 cm.

The forest understorey is dominated by *Coprosma rhamnoides*. Other understorey species present are yellowwood, mountain akeake, *Cyathodes juniperina*, *Helichrysum lanceolatum*, koromiko, bush lawyer and rarely totara saplings and Himalayan honeysuckle\*.

Important groundcover species are hen and chickens fern, hound's tongue fern, necklace fern, *Asplenium hookerianum*, *Pellaea rotundifolia*, blackberry\*, hookgrass and young plants of mapou, mahoe, broadleaf, kowhai, five-finger and native jasmine.

Occasionally present are *Libertia ixioides*, bush lily, *Cardamine* sp. and *Schizeilema* sp.

Additional species present at the lower margin of the forest are crack willow\* trees, wineberry, prickly shield fern, male fern\* and Chilean flame creeper\*. Additional species present at the upper margin are broom\*, gorse\*, hemlock\*, poroporo and planted pine and Douglas fir trees.

### Terrace treeland:

The terrace below the western end of the scarp (at the junction of Pleasant Valley and McKeown roads) is dominated by large trees of kowhai and crack willow\* in rough pasture and scrub. The trunk diameters (at breast height) of the kowhai trees are mostly between 55 and 75 cm. The surrounding area is dominated by pasture grasses\*, blackberry\* and patches of broom\*. Other prominent species present are gorse\*, elderberry\* and pohuehue. A fast-flowing stream bisects the terrace.

## Birds/Fauna Observed:

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

## Notable Flora, Fauna and Habitats:

Notable features of this Area are the number and size of the kowhai trees on the terrace, the extent and diversity of the hardwood forest on the scarp, the presence of young totara, the presence of several locally uncommon species (*Cyathodes juniperina*, *Libertia ixioides*, *Helichrysum lanceolatum* and mountain akeake), its location adjacent to other areas of indigenous forest further east along the scarp, and the contribution the vegetation makes to fauna habitat in the Geraldine Downs area.

**Notable Plant and Animal Pests:**

The most important plant pest observed was old man's beard. It appears to be confined to the exotic trees at the western end of the Area, though it is common nearby in the exotic forest along the Te Moana River. Chilean flame creeper, Himalayan honeysuckle and male fern are present in or adjacent to the hardwood forest, though these species do not appear to pose a significant threat. The terrace is dominated by pasture. Here old man's beard, the native climber pohuehue and crack willow pose a threat. Other weed species do not threaten the existing kowhai trees, though they may hinder regeneration. Possum sign was observed within the hardwood forest.

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

The Area is securely fenced along its west and southwest (road) boundaries and along its northeast boundary at the crest of the scarp. The remaining (southeast) boundary is unfenced but adjoins similar forest on very steep slopes on the adjacent property. Most of the Area is very well buffered by its location on the steep slopes of the scarp. The area of kowhai treeland is not as well buffered, though is presently protected to some extent by thick patches of blackberry and broom. The Area is part of an extensive area of indigenous forest along the southwest scarp of the Geraldine Downs and part of a network of fauna habitat in the area.

**Condition and Management Issues:**

The scarp forest is mostly in good condition. It is protected by its location on the steep slopes of the scarp and by the secure fences of adjacent paddocks. Control of old man's beard is the most important management issue here. The large kowhai trees on the terrace are mostly healthy, though the long-term presence of kowhai will depend on opportunities for regeneration of kowhai.

**Property Owner Comment:**

Mr Parr values the forest and is considering more formal protection for the area.

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**ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:**

Primary Criteria	Rank	Notes
Representativeness	M/H	A good example of indigenous forest typical of the ecological district. Likely to support kereru (threat status: gradual decline). Contains a number of locally uncommon species, including the only local record of <i>Cyathodes juniperina</i> .
Rarity	M	
Diversity and pattern	M	Supports a relatively diverse range of species, though species diversity is probably reduced from that originally present.
Distinctiveness/special features	M	The large kowhai trees, the density and diversity of the eastern scarp forest and the presence of young podocarps (totara) are special features.
<b>Other Criteria</b>		
Size/shape	M/H	A moderate-sized area for the Geraldine Ecological District and well-buffered.
Connectivity	M	Adjoins other indigenous forest and is part of a network of fauna habitat on the Geraldine Downs.
Long-term Sustainability	M	Most plant communities here are likely to persist with minimal management, though the long-term survival of kowhai on the terrace will depend on the successful establishment of young trees.

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

The scarp forest is protected by its location on steep shady slopes. The kowhai treeland is more vulnerable. Both parts of the Area have been informally protected by the landowner. Protection of the terrace treeland may limit opportunities for farm development.

**Discussion:**

The Area meets the District Plan criteria for a Significant Natural Area. Important features are the number and size of the kowhai trees on the terrace, the extent and diversity of the hardwood forest on the scarp, the presence of young totara, the presence of several locally uncommon species (notably *Cyathodes juniperina*), its location adjacent to other areas on indigenous forest further east along the scarp, and the contribution the vegetation makes to fauna habitat in the Geraldine Downs area.



# **Scientific names of species cited by common name**

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</i> sp.
cabbage tree/ti rakau	<i>Cordyline australis</i>
Chilean flame creeper*	<i>Tropaeolum speciosum</i>
crack willow*	<i>Salix fragilis</i>
Douglas fir*	<i>Pseudotsuga menziesii</i>
elderberry*	<i>Sambucus nigra</i>
five-finger	<i>Pseudopanax arboreus</i>
flax	<i>Phormium tenax</i>
foxglove*	<i>Digitalis purpurea</i>
fuchsia	<i>Fuchsia excorticata</i>
gorse*	<i>Ulex europaeus</i>
hanging spleenwort	<i>Asplenium flaccidum</i>
hemlock*	<i>Conium maculatum</i>
hen and chickens fern	<i>Asplenium bulbiferum</i>
Himalayan honeysuckle*	<i>Leycesteria formosa</i>
hookgrass	<i>Uncinia</i> sp.
hound's tongue fern	<i>Microsorium pustulatum</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>
lemonwood	<i>Pittosporum eugenioides</i>
mahoe/whiteywood	<i>Melicytus ramiflorus</i>
male fern*	<i>Dryopteris filix-mas</i>
mapou	<i>Myrsine australis</i>
matai/black pine	<i>Prumnopitys taxifolia</i>
matipo/kohuhu	<i>Pittosporum tenuifolium</i>
mountain akeake	<i>Olearia avicenniifolia</i>
narrow-leaved lacebark	<i>Hoheria angustifolia</i>
native jasmine	<i>Parsonsia</i> sp.
necklace fern	<i>Asplenium flabellifolium</i>
old man's beard*	<i>Clematis vitalba</i>
pohuehue	<i>Muehlenbeckia australis</i>
pokaka	<i>Elaeocarpus hookerianus</i>
poroporo	<i>Solanum laciniatum</i>
prickly shield fern	<i>Polystichum vestitum</i>
totara	<i>Podocarpus totara</i>
wineberry	<i>Aristotelia serrata</i>
yellowwood	<i>Coprosma linariifolia</i>