TIMARU DISTRICT

SIGNIFICANT NATURAL AREAS SURVEY

CAMERON PROPERTY

DRAFT

Report prepared for the Timaru District Council by Mike Harding
November 2007

TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

PROPERTY REPORT

PROPERTY DETAILS:

Owner: ..... Andy and Chris Cameron
Valuation Reference: 24660/243.07
Address: ..... Pye Road, RD 21, Geraldine
Location: ..... On the crest of the Geraldine Downs, between Pye and Ribbonwood roads, west of Talbot Forest Scenic Reserve
Ecological District: ..... Geraldine Ecological District
TDC Land Type: ..... Soft Rock Hills and Downs
Land Environment: ..... N3 (downlands of South Canterbury and coastal Otago)

ECOLOGICAL CONTEXT:

The property lies at the eastern edge of the Geraldine Ecological District, on low rolling hills 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.

Several scattered patches of indigenous trees (treeland) and several isolated indigenous trees are present on the property. These areas are highly modified remnants of the original forest. They are part of a more extensive area of scattered patches of forest and treeland on the Geraldine Downs. The most important of these is Talbot Forest Scenic Reserve, which lies approximately 750m east of the property.

Collectively the areas of forest and treeland on the Geraldine Downs provide habitat for birds including kereru (threat status: gradual decline) and are likely to provide important (though maybe only occasionally used) roost sites for long-tailed bats (nationally endangered). Bats have been recorded recently at Talbot Forest.

SIGNIFICANT AREAS ON THE PROPERTY:

The property was surveyed as part of the District-wide survey of Significant Natural Areas during October 2007. Two areas containing patches of indigenous vegetation 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
721c	Cameron treeland	J38: 680-790	?	Podocarp-hardwood treeland
721d	Cameron treeland	J38: 681-791	?	Podocarp-hardwood treeland

These SNAs are illustrated on the attached aerial photograph and described in greater detail in this document. 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), but will require active management to maintain their ecological values in the long-term. 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 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.

OTHER INDIGENOUS VEGETATION ON THE PROPERTY:

A substantial area of planted indigenous vegetation is present along the access drive and in the vicinity of the house on the property. These plantings are over 20 years old (Andy Cameron, *pers. comm.*) and well established. They comprise a good range of locally-sourced indigenous species and make an important contribution to fauna habitat in the area. However, these plantings are not significant when assessed against the District Plan criteria.

This does not mean that this area of vegetation is unimportant; it only means that it does not presently meet the significance criteria in the District Plan. If this area of vegetation was larger and formed a more compact shape, or if it comprised older trees, it would probably meet the District Plan criteria.

Cameron Property
24660 / 243.07
KALAUGHER ROAD
RIBBONWOOD ROAD
721d
721c
PYE ROAD
N
Meters
0
50
100
1:2,000

TIMARU DISTRICT SNA SURVEY Area 721c and Area 721d

Area Name: Cameron treeland
Property: Cameron
Ecological District: Geraldine
Nearest Locality: Geraldine
AREA 721c: Location (central map ref.): J38: 680-790
Area Size (ha): ?
Altitude (m): c.200
AREA 721d: Location (central map ref.): J38: 681-791
Area Size (ha): ?
Altitude (m): c.200
Surveyors: Mike Harding and Andy Cameron
Survey Time: 1 hour
Survey Date: 24-10-07

General Description:

These SNAs are located at the head of a small valley on the crest on the Geraldine Downs, west of Talbot Forest Scenic Reserve and between Pye and Ribbonwood roads.

Plant Communities:

The indigenous vegetation of these two small SNAs comprises scattered trees and clumps of trees within pasture. The boundaries of the SNAs have been drawn to include the main areas of indigenous vegetation. The plant species present within each SNA are described separately below. Naturalized (exotic) species are indicated with an asterisk*.

Area 721c (southern area):
This area has four main clumps of indigenous vegetation and several scattered indigenous trees.

The eastern clump comprises trees of narrow-leaved lacebark, kahikatea, totara, lancewood, pokaka, lemonwood and rohutu. Other species present are *Coprosma crassifolia*, *C. propinqua*, mapou, shrubby mahoe, mistletoe (on *C. crassifolia*) and Darwin's barberry*. A pokaka tree here has a trunk diameter (at breast height) of 50cm. This area includes a small fenced triangle of well-established planted native species.

The central clump comprises pokaka, totara, *Coprosma crassifolia*, shrubby mahoe and mistletoe (on *C. crassifolia* and shrubby mahoe).

The western clump comprises trees of kowhai, narrow-leaved lacebark, totara and rohutu. Other species present are mahoe, lemonwood, hawthorn*, pohuehue, native jasmine, lawyer, *Coprosma crassifolia*, necklace fern and foxglove*. A kowhai tree here has a trunk diameter of 34cm and a narrow-leaved lacebark tree has a trunk diameter of 63cm.

Two narrow-leaved lacebark trees and one rohutu tree are present in a clump at the southern edge of the area. The narrow-leaved lacebark trees have trunk diameters of 42 and 49cm.

Area 721d (northern area):
This area has four main clumps of indigenous vegetation.

The southern clump, at the centre of the property comprises narrow-leaved lacebark, matai, rohutu, shrubby mahoe, *Coprosma rotundifolia* and mistletoe.

The largest clump comprises totara, matai, narrow-leaved lacebark, rohutu, mahoe, pohuehue, shrubby mahoe and *Coprosma crassifolia.*

The small northwest clump comprises narrow-leaved lacebark, totara, turepo, shrubby mahoe, *Coprosma crassifolia* and mistletoe (on shrubby mahoe).

The northeast clump, on the property boundary, comprises narrow-leaved lacebark, pokaka, rohutu, shrubby mahoe, pohuehue, *Coprosma crassifolia*, *C. propinqua* and mistletoe (on *C. crassifolia*).

Birds/Fauna Observed:

Indigenous birds observed during this brief inspection were pukeko, bellbird and grey warbler. Other native birds, such as kereru, are present in the area.

Notable Flora, Fauna and Habitats:
Notable features of these clumps of indigenous vegetation are the presence of podocarp trees (kahikatea, totara and matai) which are representative of the original forest canopy, the presence of other representative canopy and sub-canopy species (narrow-leaved lacebark, kowhai, lemonwood, pokaka, rohutu and turepo), the proximity of the vegetation to the regionally-important Talbot Forest Scenic Reserve and the contribution the vegetation makes to the network of fauna habitat on the Geraldine Downs.

Notable Plant and Animal Pests:
Darwin's barberry and hawthorn are the most important plant pests present. Both species can readily establish within forest and both have bird-dispersed fruits, so their presence poses a threat to areas of forest on the property and elsewhere on the Geraldine Downs. The native climber, pohuheue (*Muehlenbeckia*), also poses a threat due to its ability to climb and smother forest-margin trees. Animal pests were not surveyed.

Boundaries (buffering, fencing, adjoining plant communities and habitats):
The boundaries of these two SNAs have been drawn to include the main clumps of indigenous vegetation. These clumps of woody vegetation are separated by pasture, though are close enough to provide stepping-stones of habitat and have the potential to be linked by planted or regenerating woody vegetation. These clumps of vegetation are not fenced, though the surrounding area does not appear to be intensively grazed. These SNAs lie relatively close to other similar areas of indigenous vegetation and only approximately 750m from a large area of remnant indigenous forest in Talbot Forest Scenic Reserve.

Condition and Management Issues:
The indigenous vegetation is in relatively good condition, though some clumps are too small to have any understorey habitat and therefore typical understorey species are absent. The long term survival of these areas of indigenous forest will be dependent on the establishment (natural or assisted) of canopy species to replace the existing canopy trees as they senesce and die. The two SNAs have good restoration potential.

Property Owner Comment:
The property owners are committed to the protection of these areas of indigenous vegetation. They have planted a substantial area of locally-sourced indigenous species elsewhere on the property and undertaken some planting in Area 721c. The owners have a vision of establishing corridors of indigenous vegetation and habitat on and adjacent to the property.

ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:

Primary Criteria	Rank	Notes
Representativeness	**M**	These areas of indigenous vegetation are modified examples of the vegetation originally present in the area.
Rarity	**M**	Trees in these areas provide habitat for kereru (gradual decline); cavities in the larger trees may provide habitat for long-tailed bat (nationally endangered).
Diversity and pattern	**L/M**	A substantially depleted forest community with much reduced species diversity.
Distinctiveness/special features	**M/H**	The presence of podocarps is a special feature. These trees are part of a regionally-important habitat for long-tailed bat.
Other Criteria		
Size/shape	**M**	These areas are relatively small but together form a moderate-sized area of fauna habitat.
Connectivity	**M/H**	These areas make an important contribution to the network of fauna habitat on the Geraldine Downs.
Long-term Sustainability	**L/M**	Active management, including forest restoration, will be required to maintain the ecological values of these areas in the long term.

Final Consideration (of other matters: Section D, page B-19 of Timaru District Plan):
Trees in these two areas have been retained and informally protected by the landowners. The presence of the trees enhances the existing land use (grazing) by providing shelter and shade, though may limit the potential for farm development. Active management will be required to maintain these areas in the long-term.

Discussion:
These two areas of treeland meet the District Plan criteria for Significant Natural Areas, primarily because of the presence of representative canopy vegetation (notably podocarps), the presence of potential roost sites (trunk cavities) for long-tailed bat and the contribution the areas make to the network of fauna habitat on the Geraldine Downs. Long-tailed bat utilise the nearby Talbot Forest Scenic Reserve and adjoining areas of habitat on the Geraldine Downs. Long-tailed bat is a nationally endangered species and the South Canterbury population is nationally significant.

Scientific names of species cited by common name

Common Name (* = naturalised species)	Scientific name
broadleaf	*Griselinia littoralis*
Darwin's barberry*	*Berberis darwinii*
five-finger	*Pseudopanax arboreus*
foxglove*	*Digitalis purpurea*
hawthorn*	*Crataegus monogyna*
kahikatea/white pine	*Dacrycarpus dacrydioides*
kowhai	*Sophora microphylla*
lancewood	*Pseudopanax crassifolius*
lawyer	*Rubus schmidelioides*
lemonwood	*Pittosporum eugenioides*
mahoe/whiteywood	*Melicytus ramiflorus*
mapou	*Myrsine australis*
matai/black pine	*Prumnopitys taxifolia*
mistletoe	*Ileostylis micranthus*
narrow-leaved lacebark	*Hoheria angustifolia*
native jasmine	*Parsonsia* sp.
necklace fern	*Asplenium flabellifolium*
pohuehue	*Muehlenbeckia australis*
pokaka	*Elaeocarpus hookerianus*
rohutu	*Lophomyrtus obcordata*
shrubby mahoe	*Melicytus micranthus*
totara	*Podocarpus totara*
turepo	*Streblus heterophyllus*