

TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

PROPERTY REPORT

PROPERTY DETAILS:

Owner: Jeffery and Verna Wilson
Valuation Reference: 24660/222.16
Address: 52 Kalaugher Road, Geraldine
Location: On the crest of the Geraldine Downs, east of Kalaugher Road
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 the crest of the 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.

Two areas of scattered remnant indigenous trees (treeland) are present on the property. These areas of treeland are highly modified remnants of the original forest and comprise scattered trees of totara, kahikatea, narrow-leaved lacebark, pokaka, broadleaf and lancewood. These 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 only 1 km southeast 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 bats (nationally endangered).

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 scattered trees (treeland) are regarded as significant when assessed against the District Plan criteria. These two areas are listed in the table below.

Area No.	Area Name	Central grid reference	Aprox. size(ha)	Vegetation/habitat type
725b	Wilson Gully Remnant	J38: 683-797	0.68	Podocarp-hardwood treeland
725c	Wilson Treeland	J38: 682-797	0.05	Podocarp treeland

Areas of indigenous vegetation and/or habitat on the property that are identified as Significant Natural Areas (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 SNAs 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

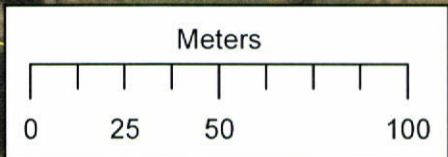
long-term. SNAs are subject to confirmation by Council after regarding the matters listed under Final Considerations (pages B19-B20).

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.

Scientific names of species cited by common name

Common Name	Scientific name
(* = naturalised species)	
blackberry*.....	<i>Rubus fruticosus</i>
black nightshade*.....	<i>Solanum nigrum</i>
broadleaf.....	<i>Griselinia littoralis</i>
cabbage tree/ti rakau.....	<i>Cordyline australis</i>
elderberry*.....	<i>Sambucus nigra</i>
five-finger.....	<i>Pseudopanax arboreus</i>
flax.....	<i>Phormium tenax</i>
foxglove*.....	<i>Digitalis purpurea</i>
gorse*.....	<i>Ulex europaeus</i>
hawthorn*.....	<i>Crataegus monogyna</i>
kahikatea/white pine.....	<i>Dacrydium dacrydioides</i>
kowhai.....	<i>Sophora microphylla</i>
lancewood.....	<i>Pseudopanax crassifolius</i>
lemonwood.....	<i>Pittosporum eugenioides</i>
mahoe.....	<i>Melicope ramiflora</i>
matai/black pine.....	<i>Prumnopitys taxifolia</i>
matipo.....	<i>Pittosporum tenuifolium</i>
mistletoe.....	<i>Illicium micranthum</i>
narrow-leaved lacebark.....	<i>Hoheria angustifolia</i>
pohuehue.....	<i>Muehlenbeckia australis</i>
pokaka.....	<i>Elaeocarpus hookerianus</i>
poroporo.....	<i>Solanum laciniatum</i>
soft rush*.....	<i>Juncus effusus</i>
totara.....	<i>Podocarpus totara</i>
wineberry.....	<i>Aristotelia serrata</i>

Wilson Property
24660/222.16



1:2,000

TIMARU DISTRICT SNA SURVEY

AREA 725b and c

Area Name: Wilson Treeland Remnants

Ecological District: Geraldine

AREA 725b: Location (central map ref.): J38: 683-797

AREA 725c: Location (central map ref.): J38: 682-797

Surveyors: Mike Harding

Property: Wilson

Nearest Locality: Geraldine

Area Size (ha): 0.68

Altitude (m): 180

Area Size (ha): 0.05

Altitude (m): 190

Survey Time: 1 hour

Survey Date: 21-08-07

General Description:

Area 725b lies in a small gully and Area 725c lies on the adjoining slopes, on the crest of the rolling hills of the Geraldine Downs.

Plant Communities:

These SNAs support remnant podocarp and hardwood trees scattered through pasture and recently-planted native species. These plant communities are described separately below. Naturalized (exotic) species are indicated with an asterisk*.

Gully Remnant (Area 725b):

This remnant comprises scattered trees of kahikatea, totara, narrow-leaved lacebark, pokaka, lancewood and broadleaf. Most of the trees appear relatively old. Two of the three kahikatea trees have trunk diameters (at breast height) of 65 and 40 cm. The larger of the two pokaka trees has a trunk diameter of 67 cm. The lancewood tree has a trunk diameter of 30 cm. The most common tree present is hawthorn*, which forms an almost continuous strip of low-forest along the northwest side of the gully.

The southern part of the Area is fenced from grazing. It has been planted with native species, predominantly cabbage tree, flax, lemonwood, matipo, *Coprosma robusta*, *C. rotundifolia* and wineberry. Otherwise this part of the Area is dominated by pasture grasses, with soft rush* beside small ponds. Other species present here are black nightshade*, elderberry*, poroporo, blackberry*, gorse*, foxglove*, pohuehue and *Coprosma crassifolia*.

The northern (down-valley) part of the Area is grazed. Here the hawthorn and remnant native trees are present in pasture. Other species observed here were pohuehue, *Coprosma crassifolia* and mistletoe (on hawthorn*).

Ridge-top trees (Area 725c):

This remnant comprises two kahikatea trees and one younger totara tree on the crest of the spur just west of the gully remnant. The kahikatea trees are tall, with trunk diameters of 54 and 57 cm. These trees have few trunk cavities though are likely to provide some useful perching and feeding habitat for birds.

Birds/Fauna Observed:

Native birds observed during this brief inspection were fantail and pukeko.

Notable Flora, Fauna and Habitats:

Notable features of these SNAs are the remnant native trees, especially the older kahikatea, broadleaf, narrow-leaved lacebark and pokaka trees. The larger trees have trunk cavities that provide suitable roost sites for birds and possibly bats. The small stream and the relatively extensive native plantings along this stream are attractive features.

Notable Plant and Animal Pests:

Hawthorn is the most prominent woody plant pest present. While it has attractive flowers and provides abundant fruit for birds, it dominates the Area and will hinder the establishment or regeneration of indigenous species. Its presence here also poses a threat to other areas of indigenous forest in the area, as its fleshy fruits are readily dispersed by birds. Gorse could also hinder plant growth in the ungrazed part of the Area, though would not prevent the eventual regeneration of indigenous species.

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

The main area of remnant indigenous trees (Area 725b) is protected and buffered by its location in a small gully and by the relatively extensive area of native plantings. Approximately half of the area is fenced from grazing, though most of the older indigenous trees lie outside this fenced area. The smaller area of indigenous trees (Area 725c) is not well buffered or protected, though is close to the main gully area. Both remnants lie relatively close to other areas of indigenous forest and treeland on the Geraldine Downs, including a large remnant less than 1 km to the northwest and the important Talbot Forest Scenic Reserve approximately 1 km to the southeast.

Condition and Management Issues:

The remnant indigenous trees are mostly in good condition. Some of the broadleaf and pokaka trees are old and nearing senescence. Important management issues are the control (or removal) of hawthorn and gorse and the establishment of young canopy species that could eventually replace the older remnant trees when they die (especially in Area 725c).

Property Owner Comment:

The landowner values the remnant trees and has put considerable effort into planting native species in the fenced part of the Area. He intends controlling the gorse and is contemplating the control or removal of hawthorn.

ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:

Primary Criteria	Rank	Notes
Representativeness	M	These forest remnants (treeland) are depleted/modified examples of the indigenous vegetation originally present in the ecological district.
Rarity	M	These areas provide some habitat for birds (e.g. kereru) and contain trees with cavities that may provide suitable roost sites for long-tailed bat (a nationally endangered species).
Diversity and pattern	L/M	Substantially depleted indigenous plant communities with much-reduced species diversity.
Distinctiveness/special features	M	The trees in these areas may form part of a regionally-important habitat for long-tailed bat.
Other Criteria		
Size/shape	M	These areas are small, though together they form a moderate-sized area that is mostly well buffered.
Connectivity	M/H	These areas are part of a network of fauna habitat on the Geraldine Downs and close to other areas of indigenous vegetation, providing ecologically-viable stepping stones of habitat for birds and possibly long-tailed bat.
Long-term Sustainability	L/M	Active management 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 areas have been retained and informally protected by the landowner. The presence of the trees enhances the existing land use (grazing) by providing shelter and shade, though may limit the potential for farm development.

Discussion:

These two areas of treeland meet the District Plan criteria for Significant Natural Areas, primarily because together they provide useful habitat for native birds and they have potential roost sites (trunk cavities) for long-tailed bat. Long-tailed bat have been recorded nearby in 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.