

TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

PROPERTY REPORT

PROPERTY DETAILS:

Owner: Alan Kelly
Valuation Reference: 24660/258.00
Address: Downs Road, Geraldine
Location: On a scarp 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)

ECOLOGICAL CONTEXT:

The property lies on the eastern edge of the Geraldine Ecological District, on the southwest 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.

One area of regenerating podocarp-hardwood forest is present on the property. This forest remnant is relatively diverse and provides habitat for two threatened species (kereru and rifleman) and two locally uncommon species. This area of forest is part of a more extensive collection of scattered patches of forest and treeland on the Geraldine Downs that provide important habitat for birds and possibly for long-tailed bat (a 'nationally endangered' species). Bats have been recorded in Talbot Forest and in the Te Moana valley.

SIGNIFICANT AREAS ON THE PROPERTY:

The property was surveyed as part of the District-wide survey of Significant Natural Areas during August 2007. One area of forest on the property is regarded as a Significant Natural Area (SNA) when assessed against the District Plan criteria.

Area No.	Area Name	Central grid reference	Aprox. size (ha)	Vegetation/habitat type
32b	Kelly Forest	J38: 656-797	2.44	Podocarp-hardwood forest

This SNA is illustrated on the attached aerial photograph and described in greater detail in this document. Note that the boundaries of the SNA are indicative, rather than precise. This SNA 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 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.

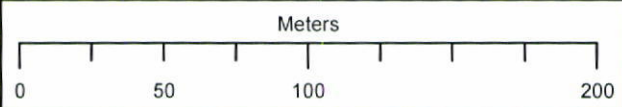
OTHER AREAS INSPECTED ON THE PROPERTY:

Another 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 is a small patch of regenerating hardwood forest amongst pine plantations just northwest of the main access track on this part of the property (northwest of Area 32b). This area has a low diversity of species, has no podocarps (e.g. totara), provides very limited habitat for threatened species and is quite small.

Failure of this 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. This area has some potential value and, if left undisturbed, may eventually become significant.

Kelly Property
Broadacres Farming
24660/258.00

82b



1:2,500

TIMARU DISTRICT SNA SURVEY

AREA 32b

Area Name: Kelly Forest	Property: Broadacres (Kelly property)
Location (central map reference): J38: 656-797	Nearest Locality: Geraldine
Ecological District: Geraldine	Area Size (ha): 2.44 Altitude (m): 180-200
Surveyors: Mike Harding	Survey Time: 2½ hours Survey Date: 16-08-07

General Description:

This area of indigenous forest lies on moderately-steep lower slopes of the scarp that forms the western edge of the Geraldine Downs. It is located on Pleasant Valley Road, near the Pleasant Valley Hall.

Plant Communities:

The Area supports regenerating podocarp-hardwood forest. The northwestern (up-valley) edge of the Area had been (at the time of survey) recently grazed and trampled by cattle. The main (southeastern) part of the area was less affected by cattle and has a more intact understorey. The plant communities in these two parts are described separately below. Naturalized (exotic) species are indicated with an asterisk*.

Northwest (grazed) part:

The forest canopy in this part of the Area is dominated by mahoe and five-finger. There are some large five-finger trees present, with trunk diameters (at breast height) from 30 to 45 cm. Other canopy species present are fuchsia, matipo, lancewood, marbleleaf, pohuehue and occasional emergent totara and cabbage trees.

The forest understorey is quite open. Species present are bush lawyer, *Coprosma crassifolia*, *C. areolata*, *C. rhamnoides*, *C. rotundifolia*, mapou, spindle tree* and totara saplings.

Groundcover species present are hen and chicken's fern, necklace fern, *Asplenium richardii*,

A. hookerianum, *Polystichum richardii*, *Pellaea rotundifolia* and seedlings of native jasmine.

Open areas of low-stature vegetation within the forest are dominated by fuchsia, prickly shield fern, bracken, blackberry*, Himalayan honeysuckle* and foxglove*.

Additional species present on the forest margin are *Coprosma propinqua*, *Clematis foetida*, elderberry*, gorse* and occasionally barberry*.

Southeast part:

The forest canopy in this part of the Area is dominated by mahoe, lancewood, five-finger and matipo.

Other canopy species present are totara (with trunk diameters from 50 to 65 cm), fuchsia, lemonwood, marbleleaf, cabbage tree, pohuehue, *Clematis foetida*, native jasmine and at the eastern edge of the area emergent trees of narrow-leaved lacebark and kanuka.

The forest understorey is much denser in this (ungrazed) part of the forest. It is dominated by mahoe. Other understorey species present are matipo, five-finger, bush lawyer, *Coprosma crassifolia*, *C. rotundifolia*, *C. rhamnoides*, *C. areolata*, *C. propinqua*, fuchsia, mapou, *Lophomyrtus obcordata*, *Streblus heterophyllus*, *Melicope simplex*, shrubby mahoe, spindle tree*, black nightshade*, narrow-leaved lacebark saplings and totara saplings.

Groundcover species present are hen and chickens fern, *Asplenium hookerianum*, *A. richardii*, prickly shield fern, *Polystichum richardii*, hound's tongue fern, *Blechnum fluviatile*, sedge (*Carex* sp.), hookgrass (*Uncinia* sp.), pennywort, *Schizeilema* sp. and seedlings of mahoe, wineberry, cabbage tree and native jasmine.

Species occasionally (rarely) present in the understorey are *Coprosma rigida*, lemonwood, *Libertia ixioides*, one silver fern and one kahikatea sapling.

Small damp gullies and openings are dominated by fuchsia, *Clematis foetida*, lawyer, bush lawyer, pohuehue and blackberry*. Also present in these areas are mahoe, pate, *Coprosma rotundifolia*, wineberry, elderberry*, prickly shield fern, *Hypolepis ambigua* and hen and chickens fern.

Birds/Fauna Observed:

Indigenous birds observed during this brief inspection were grey warbler, bellbird, kereru (NZ pigeon), silvereye, fantail and rifleman.

Notable Flora, Fauna and Habitats:

Notable features of this Area are the presence of totara (including young trees), the presence of a kahikatea sapling, the presence of threatened bird species (kereru and rifleman: both with a threat status of 'gradual decline'), the presence of locally-uncommon plant species (silver fern and *Libertia ixioides*), the location of

the forest adjacent to a more extensive area of protected indigenous forest, and the contribution the Area makes to the network of fauna habitat on the Geraldine Downs.

Notable Plant and Animal Pests:

No significant plant pests were observed. Spindle tree, Himalayan honeysuckle and elderberry are present, but do not pose a significant threat. Gorse and blackberry are common on the forest margins, but do not pose a significant threat to intact forest. Possum sign was observed.

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

The Area adjoins a larger area of indigenous forest on its southeast boundary (protected by a QEII Open Space covenant) and is part of a relatively extensive area of forest on the western scarp of the Geraldine Downs. The area of indigenous vegetation is surrounded and buffered, on its other boundaries, by gorse scrub. It is fenced near its lower boundary but unfenced from the gorse scrub and planted pines on upper slopes. This block had been grazed by cattle at the time of the survey, though cattle had not penetrated the vegetation at the southeast corner.

Condition and Management Issues:

The forest canopy for the most part is in good condition. There is some canopy dieback (presumably from spray-drift) at the western corner. The forest understorey ranges from open and trampled in the northwest part of the forest to relatively intact in the southeast part. The most important management issue is the protection of the forest understorey from the effects of cattle grazing.

Property Owner Comment:

Intends to maintain the indigenous vegetation in this area and is considering fencing the upper boundary to exclude cattle.

ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:

Primary Criteria	Rank	Notes
Representativeness	M/H	A relatively good example of (regenerating) forest typical of the ecological district and with a good range of species representative of the original forest of the area.
Rarity	M	Provides useful habitat for two threatened bird species: kereru and rifleman (both 'gradual decline'). Contains two locally-uncommon species (silver fern and <i>Libertia ixioides</i>).
Diversity and pattern	M	Species diversity is probably reduced from that originally present in the area.
Distinctiveness/special features	M	The presence of podocarps (totara and kahikatea), including podocarp regeneration is a special feature.
Other Criteria		
Size/shape	M	A relatively small area but with a good shape and well buffered.
Connectivity	M/H	Adjoins a more extensive area of protected indigenous vegetation and is part of a network of fauna habitat on the Geraldine Downs.
Long-term Sustainability	M	The ecological values of the Area are likely to persist in the long term with minimal management.

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

The area has been informally protected by the landowners. It provides some amenity value to the property. The steepness of most parts of the area limits its potential for farm development.

Discussion:

This Area meets the District Plan criteria for a Significant Natural Area. Its main attributes are the presence of totara (including young trees), the presence of a kahikatea sapling, the presence of threatened bird species (kereru and rifleman), the presence of locally-uncommon plant species (silver fern and *Libertia ixioides*), the location of the forest adjacent to a more extensive area of protected indigenous forest, and the contribution the Area makes to the network of fauna habitat on the Geraldine Downs.

Scientific names of species cited by common name

Common Name	Scientific name
(* = naturalised species)	
barberry*	<i>Berberis glaucocarpa</i>
blackberry*	<i>Rubus fruticosus</i>
black nightshade*	<i>Solanum nigrum</i>
bracken	<i>Pteridium esculentum</i>
broadleaf	<i>Griselinia littoralis</i>
bush lawyer	<i>Rubus cissoides</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>
hen and chickens fern	<i>Asplenium bulbiferum</i>
Himalayan honeysuckle*	<i>Leycesteria formosa</i>
hound's tongue fern	<i>Microsorium pustulatum</i>
kahikatea/white pine	<i>Dacrycarpus dacrydioides</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>Melicytus ramiflorus</i>
mapou	<i>Myrsine australis</i>
marbleleaf/putaputaweta	<i>Carpodetus serratus</i>
matai/black pine	<i>Prumnopitys taxifolia</i>
matipo/kohuhu	<i>Pittosporum tenuifolium</i>
narrow-leaved lacebark	<i>Hoheria angustifolia</i>
native jasmine	<i>Parsonsia</i> sp.
necklace fern	<i>Asplenium flabellifolium</i>
pate	<i>Schefflera digitata</i>
pennywort	<i>Hydrocotyle</i> sp.
pohuehue	<i>Muehlenbeckia australis</i>
pokaka	<i>Elaeocarpus hookerianus</i>
prickly shield fern	<i>Polystichum vestitum</i>
shrubby mahoe	<i>Melicytus micranthus</i>
silver fern/ponga	<i>Cyathea dealbata</i>
spindle tree*	<i>Euonymus europaeus</i>
totara	<i>Podocarpus totara</i>
wineberry	<i>Aristotelia serrata</i>