

TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

PROPERTY REPORT

PROPERTY DETAILS:

Owner: DK and SR Craigie
Valuation Reference: 24670/160.00 and 24670/162
Address: Woodside Road, Gapes Valley, Geraldine
Location: On a terrace scarp on the north side of Gapes Valley, east of Patrick Road and east of Woodside 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 in the Geraldine Ecological District, on the rolling hill country east of Waitohi Hill (and just east of the Orari Ecological District). 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 podocarp-hardwood forest and one area of kanuka forest are present on the property. The podocarp-hardwood forest remnant is relatively diverse and probably provides habitat for two threatened bird species (karearea/NZ falcon and kereru/NZ pigeon) and locally uncommon plant species (supplejack, green-hooded orchid, silver fern and crown fern). The kanuka forest is depleted, though covers a relatively large area. These areas of forest are part of a corridor of indigenous forest and are close to scattered patches of indigenous forest on the east side of Waitohi Hill. Collectively these areas provide important habitat for birds and possibly for long-tailed bat (a 'nationally endangered' species). Bats have been recorded 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 December 2008. Two areas of forest on the property are regarded as a Significant Natural Areas (SNAs) when assessed against the District Plan criteria.

Area No.	Area Name	Central grid reference	Aprox. size (ha)	Vegetation/habitat type
68	Craigie Scarp Forest	J38: 617-760	1.55	Kanuka forest
69c	Gapes Valley Scarp Forest	J38: 607-761	1.14	Podocarp-hardwood forest

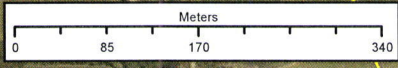
These SNAs are illustrated on the attached aerial photograph and described in greater detail in this document. Note that the boundaries of the SNAs are indicative, rather than precise. These SNAs meet the ecological criteria in the Timaru District Plan (criteria i-vi, pages B18-B19). The long term sustainability (criterion vii, page B19) of SNA 68 is uncertain and the long term sustainability of SNA 69c is threatened by the presence of sycamore. 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 removal of non-indigenous species such as sycamore. 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. It is expected that SNAs will eventually be listed in the District Plan by way of a notified plan change.



DK and SR Craige
24670/160.00
24670/162.00



1:7,000

Area Name: Craigie Scarp Forest

Location (central map reference): J38: 617-760

Ecological District: Geraldine

Surveyors: Mike Harding

Property: DK and SR Craigie

Nearest Locality: Gapes Valley

Area Size (ha): 1.55

Altitude (m): 180-200

Survey Time: 1 hour

Survey Date: 10-12-08

General Description:

This SNA is located on a steep south-facing scarp on the northern side of Gapes Valley, just east of Woodside Road. It lies on the rolling hill country east of Waitohi Hill. It is part of a narrow corridor of indigenous vegetation along the scarp.

Plant Communities:

The main plant community present is kanuka forest. This is described below. Naturalized (exotic) species are indicated with an asterisk*.

The forest canopy is dominated by kanuka, with trunk diameters (at breast height) mostly between 20 and 30cm. Other canopy species are mahoe, sycamore*, pohuehue and native jasmine. One very large and one smaller pine tree are present near the western end of the area. Also present are one ash* tree and, on the lower forest margin, cabbage tree and crack willow*.

The forest understorey is mostly very open, especially at the western end. The eastern part of the forest (separated by a fenced stock-lane) has large patches of blackberry* in the understorey. Also present in this area are matipo, fuchsia, hawthorn* and elderberry*.

The groundcover throughout is very open and in places grassed. Species observed here were foxglove*, pennywort, necklace fern and poroporo.

Other species present on the forest margin are gorse*, rushes (*Juncus* sp.) and Chilean flame creeper*.

Birds/Fauna Observed:

Native birds observed during this brief survey were bellbird and grey warbler.

Notable Flora, Fauna and Habitats:

Important features of this area are its size and its location adjacent to other areas of indigenous forest.

Notable Plant and Animal Pests:

Sycamore, hawthorn and Chilean flame creeper are the most important plant pests present. However, these species are unlikely to become dominant while the area is grazed. Animal pests were not surveyed.

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

This SNA is part of a corridor of indigenous forest on the Gapes Valley scarp. It adjoins other parts of this forest on its western boundary and a pine plantation on its eastern boundary. The upper (northern) boundary is fenced and the area is divided by a fenced stock-lane. The SNA lies relatively close to other areas of indigenous forest on the slopes of Waitohi Hill. It is grazed as part of two larger paddocks.

Condition and Management Issues:

This SNA supports regenerating forest, dominated by kanuka. The forest canopy is in reasonable condition but the understorey is modified. Removal of grazing would enable regeneration of understorey and canopy species, as there are good seed sources nearby. However, any removal of grazing would need to be accompanied by weed control as several invasive introduced species are present (notably sycamore, hawthorn, elderberry and ash).

Property Owner Comment:

Mr Craigie is interested in providing better protection for the forest by fencing the lower boundary.

ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:

Primary Criteria	Rank	Notes
Representativeness	M	A depleted example of indigenous vegetation typical of the ecological district.
Rarity	L/M	May provide some habitat for threatened bird species (NZ pigeon/kereru)
Diversity and pattern	L/M	Species diversity is reduced from that typically and originally present.
Distinctiveness/special features	L/M	Provides some useful habitat for forest birds.
Other Criteria		
Size/shape	M	A moderate-sized area that is well buffered by its location on steeper south-facing slopes.
Connectivity	M/H	Adjoins other indigenous vegetation (across Woodside Road) and is part of a network of fauna habitat in the area.
Long-term Sustainability	L	Ecological values of the area will decline in the long-term in the absence of protection and/or conservation management.

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

The SNA has been informally protected by the landowners, though is grazed as part of larger paddocks. Protection of the area would limit opportunities for further development of the area, though only the lower slopes have good potential for farming.

Discussion:

This area scarcely meets the District Plan criteria for a Significant Natural Area, mainly because it is small (less than 2 ha in size). Important features of the area are its size and its location adjacent to other areas of indigenous forest.

TIMARU DISTRICT SNA SURVEY

AREA 69c

Area Name: Gapes Valley Scarp Forest
Location (central map reference): J38: 607-761
Ecological District: Geraldine
Surveyors: Mike Harding

Property: DK and SR Craigie
Nearest Locality: Gapes Valley
Area Size (ha): 1.14 **Altitude (m):** 180-200
Survey Time: 2 hours **Survey Date:** 10-12-08

General Description:

This SNA is located on a steep south-facing scarp on the northern side of Gapes Valley, just east of Patrick Road. It lies on the rolling hill country east of Waitohi Hill. It is part of a narrow corridor of indigenous vegetation along the scarp.

Plant Communities:

Two main plant communities are present: kanuka-podocarp-hardwood forest on the upper slopes; and lower-stature hardwood forest on the lower slopes. These plant communities are described separately below. Naturalized (exotic) species are indicated with an asterisk*.

Upper slope forest:

The forest canopy on the scarp crest is dominated by kanuka and mahoe, with emergent totara trees at the east end. The totara trees have trunk diameters (at breast height) of between 30 and 50cm. Trunk diameters of the larger kanuka trees range between 25 and 30cm, with occasional trees up to 55cm. Other canopy species present are five-finger, lemonwood, sycamore*, hawthorn*, lancewood, marbleleaf, broadleaf, mapou, yellowwood, pohuehue and *Calystegia tuguriorum*. A single kahikatea tree, with a trunk diameter of 41cm, is present near the eastern property boundary.

The forest understorey is relatively open. Important species are mapou, mahoe, matipo and *Coprosma rhamnoides*. Other understorey species present are pohuehue, bush lawyer, lemonwood, *Lophomyrtus obcordata*, *Neomyrtus pedunculata*, *Coprosma areolata*, *Coprosma crassifolia*, *Coprosma rotundifolia*, fuchsia, holly*, hawthorn*, sycamore* and ash*.

Groundcover species present are hen and chickens fern, hanging spleenwort, necklace fern, *Asplenium richardii*, *Asplenium hookerianum*, *Polystichum richardii*, hound's tongue fern, *Pellaea rotundifolia*, *Libertia ixioides*, and seedlings of native jasmine, mahoe, sycamore*, cabbage tree, kanuka and totara. Species commonly present at the upper forest margin are pohuehue, blackberry*, broom*, gorse*, poroporo and foxglove*.

Lower slope forest:

The forest on the mid and lower slopes lies on damper soils. The forest canopy is dominated by mahoe and, at the forest margin, pohuehue. Other canopy species are cabbage tree, fuchsia, marbleleaf, broadleaf and five-finger.

Species present in the understorey are pate, mahoe, poroporo, wineberry, *Coprosma rotundifolia*, supplejack, and saplings of totara and kahikatea.

Groundcover species present are *Leptopteris hymenophylloides*, hen and chickens fern, *Asplenium hookerianum*, hanging spleenwort, *Carex forsteri*, *Carex solandri*, pennywort, green-hooded orchid, male fern*, foxglove*, bittersweet* and seedlings of fuchsia, wineberry, mahoe and supplejack.

Additional species present in a small shallow gully are silver fern, young cabbage trees, tutsan*, *Hypolepis ambigua*, hard fern, *Blechnum chambersii*, *Blechnum fluviatile*, crown fern, prickly shield fern and *Polystichum richardii*.

Species that are dominant on the lower forest margin are fuchsia, pohuehue and mahoe. Other species present on the margin are crack willow*, *Calystegia tuguriorum*, blackberry* and elderberry*. A single totara tree is present in the adjacent paddock.

Birds/Fauna Observed:

Native birds observed during this brief survey were silvereye, grey warbler, bellbird, NZ pigeon/kereru and kingfisher. A karearea/NZ falcon was observed on the neighbouring property in January 2008.

Notable Flora, Fauna and Habitats:

Important features of this area are the presence of mature and sapling podocarps (totara and kahikatea), the relatively diverse range of indigenous plant species present, the habitat the area provides for birds including

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)	
ash*	<i>Fraxinus excelsior</i>
bittersweet*	<i>Solanum dulcamara</i>
blackberry*	<i>Rubus fruticosus</i>
broadleaf	<i>Griselinia littoralis</i>
broom*	<i>Cytisus scoparius</i>
bush lawyer	<i>Rubus cissoides</i>
cabbage tree/ti rakau	<i>Cordyline australis</i>
Chilean flame creeper*	<i>Tropaeolum speciosum</i>
crack willow*	<i>Salix fragilis</i>
crown fern	<i>Blechnum discolor</i>
elderberry*	<i>Sambucus nigra</i>
five-finger	<i>Pseudopanax arboreus</i>
foxglove*	<i>Digitalis purpurea</i>
fuchsia	<i>Fuchsia excorticata</i>
green-hooded orchid	<i>Pterostylis</i> sp.
gorse*	<i>Ulex europaeus</i>
hanging spleenwort	<i>Asplenium flaccidum</i>
hard fern	<i>Paesia scaberula</i>
hawthorn*	<i>Crataegus monogyna</i>
hen and chickens fern	<i>Asplenium bulbiferum</i>
holly*	<i>Ilex aquifolium</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>
lemonwood	<i>Pittosporum eugenioides</i>
mahoe/whiteywood	<i>Melicactus ramiflorus</i>
male fern*	<i>Dryopteris filix-mas</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>
poroporo	<i>Solanum laciniatum</i>
prickly shield fern	<i>Polystichum vestitum</i>
silver fern/ponga	<i>Cyathea dealbata</i>
silver tussock	<i>Poa cita</i>
supplejack	<i>Ripogonum scandens</i>
sycamore*	<i>Acer pseudoplatanus</i>
totara	<i>Podocarpus totara</i>
tutsan*	<i>Hypericum androsaemum</i>
wineberry	<i>Aristotelia serrata</i>
yellowwood	<i>Coprosma linariifolia</i>