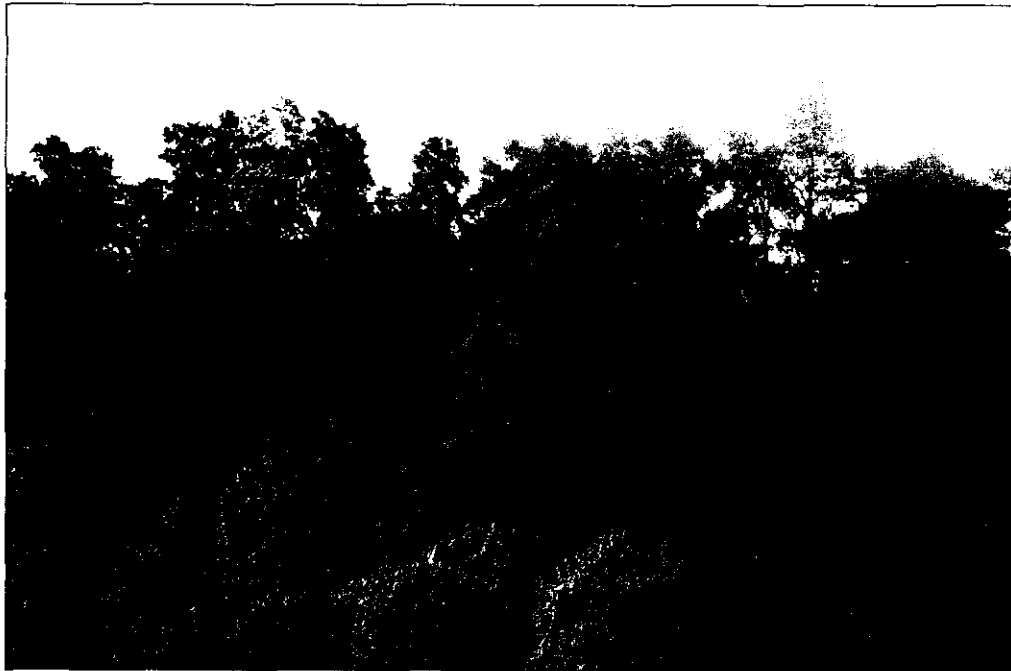


TIMARU DISTRICT
SIGNIFICANT NATURAL AREAS
SURVEY

HARVEY PROPERTY



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

TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

PROPERTY REPORT

PROPERTY DETAILS:

Owners:George and Lorraine Harvey
Valuation Reference:24660/252.00
Address:294 Downs Road, Geraldine
Location:In a small gully north of Downs Road on the northern side of the Geraldine Downs.
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 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.

One patch of podocarp-hardwood forest and a number of scattered indigenous trees are present on the property. The forest contains remnant and regenerating indigenous vegetation, including moderate-sized totara trees and one large and two smaller kahikatea/white pine trees. Forest on the property is 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 1.5 km to the southeast.

These areas of forest and treeland are likely to provide roost sites (though maybe only occasionally used) for long-tailed bat (a 'nationally endangered' species). Long-tailed bat are present nearby in Talbot Forest. The indigenous forest on the property is also likely to provide habitat for kereru/NZ pigeon (threat status: gradual decline). Notable plant species present on the property are *Brachyglottis sciadophila* (gradual decline), the locally-uncommon dwarf mistletoe (*Korthalsella lindsayi*), the locally-uncommon small trees *Streblus heterophyllus* and *Coprosma areolata* and the remnant podocarp trees (totara and kahikatea).

SIGNIFICANT AREAS ON THE PROPERTY:

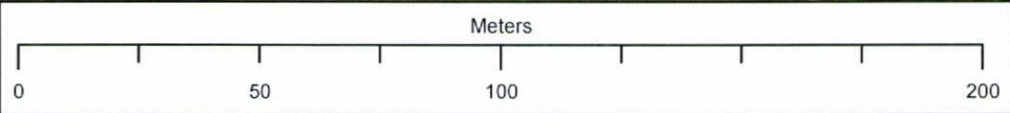
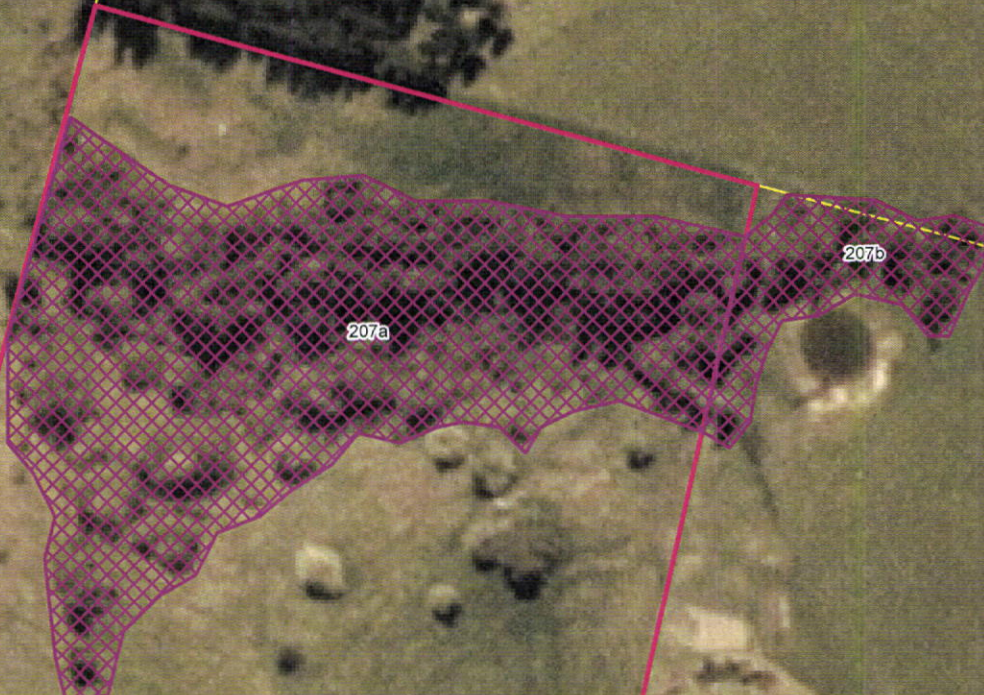
The property was surveyed as part of the District-wide survey of Significant Natural Areas during March 2007. All parts of the property were visited. The forest remnant on the property is regarded as significant when assessed against the District Plan criteria.

Area No.	Area Name	Central grid reference	Aprox. size(ha)	Vegetation/habitat type
207a		J38: 672-799	0.9	Podocarp-hardwood forest

This Significant Natural Area (SNA) is illustrated on the attached aerial photograph and described in greater detail on the Area Inspection Form in this report. Note that the boundary of the forest is 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). The SNA is 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. Any questions regarding the protection, management and use of SNAs should be directed to the District Planner.

Harvey Property
24660/252.00



SHERRATT ROAD

1:1,500

TIMARU DISTRICT SNA SURVEY

AREA 207a

Area Name:	Property: Harvey Property	
Location (central map reference): J38: 672-799	Nearest Locality: Geraldine	
Ecological District: Geraldine	Area Size (ha): 0.9	Altitude (m): 190-220
Surveyors: Mike Harding	Survey Time: 2 hours	Survey Date: 07-03-07

General Description:

The Area is located on a moderately-steep south-facing slope of a small gully near the northern edge of the Geraldine Downs, on the north side of Downs Road just west of the junction of Sherratt Road.

Plant Communities:

The Area is a remnant of podocarp-hardwood forest with scattered younger trees nearby. This plant community is described below. Naturalized (exotic) species are indicated with an asterisk*.

The forest canopy is dominated by totara, narrow-leaved lacebark, pokaka, mahoe, lancewood and lemonwood, with emergent kahikatea. Other canopy species present are broadleaf, matipo, five-finger, mapou, marbleleaf, fuchsia and pohuehue. Totara trees in the forest have average trunk diameters (at breast-height) of 40 to 50 cm (the largest measured is 75 cm). The large kahikatea tree has a trunk diameter of 95 cm, and the smaller kahikatea trees have trunk diameters of 34 cm and 28 cm.

One part of the forest, on its southern margin in the gully, is dominated by lower vegetation and climbers. Dominant species here are pohuehue, native jasmine, fuchsia, wineberry and mahoe. Also present here is the indigenous scrambling daisy, *Brachyglottis sciadophila*, and one moderate-sized sycamore* tree.

The forest understorey is dominated by shrubby mahoe, *Melicope simplex*, *Coprosma rotundifolia* and *C. crassifolia*. Other understorey species present are *Lophomyrtus obcordata*, hawthorn*, totara saplings, *Streblus heterophyllus*, mapou, *Coprosma areolata*, lawyer, bush lawyer, elderberry*, a single matai sapling and rarely: kaikomako, white climbing rata, horopito and barberry*.

Important ground-cover species present are *Pellaea rotundifolia*, necklace fern, bidibid, common pennywort, *Asplenium hookerianum*, *Cardamine* sp., poroporo, foxglove*, black nightshade* and seedlings of mahoe. Additional species present nearer the ephemeral stream in the gully are hen and chickens fern, *Polystichum richardii* and rarely *Blechnum fluviatile*.

Other species present on the forest margin are *Coprosma propinqua*, *Clematis foetida* (?), *Calystegia tuguriorum*, bittersweet*, blackberry*, thistles* and a single lowland ribbonwood sapling.

A small patch of forest extends across the gully onto the north-facing slopes. The forest here is dominated by scattered trees of totara, *Lophomyrtus obcordata*, narrow-leaved lacebark, cabbage tree and hawthorn*. Other species present here are *Coprosma rotundifolia*, *C. propinqua*, *C. crassifolia*, *C. areolata*, *Melicope simplex*, matipo, necklace fern, a single apple* tree, one clump of gooseberry* and one patch of the dwarf mistletoe (*Korthalsella lindsayi*) on a *Melicope simplex* bush.

Slopes surrounding the forest support pasture with scattered hawthorn* trees, young totara trees and *Coprosma propinqua* bushes.

Birds/Fauna Observed:

Indigenous birds observed during this brief visit were bellbird, grey warbler and harrier.

Notable Flora, Fauna and Habitats:

Important features of this area are the presence of remnant and regenerating podocarps (totara and kahikatea), the large kahikatea tree, the presence of the scrambling daisy *Brachyglottis sciadophila* (threat status: gradual decline), the habitat the area provides for kereru (gradual decline) and possibly long-tailed bat (nationally endangered) (larger indigenous trees with cavities provide favourable roost sites for bats) and the presence of the locally-uncommon dwarf mistletoe (*Korthalsella lindsayi*) and the locally-uncommon small

trees *Streblus heterophyllus* and *Coprosma areolata*. The presence of rimu (if still present) is also notable. The presence of a small outcrop of basalt boulders within the forest is an interesting feature.

Notable Plant and Animal Pests:

Hawthorn and sycamore are the most important plant pests present. There are a number of large hawthorn trees in pasture surrounding the forest remnant and smaller hawthorn trees within the forest. One moderate-sized sycamore tree and scattered seedlings are present within the forest near the gully bottom. Elderberry bushes and a single barberry bush are also present. Other weeds, such as bittersweet, black nightshade, blackberry, gooseberry and thistles, are present on the forest margin but do not pose a significant threat to the indigenous forest. Animal pests were not surveyed, though possums are likely to be present.

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

This indigenous forest remnant is within a larger paddock that (at the time of the inspection) is grazed by sheep. The forest is unfenced, though does not appear to be heavily grazed. It is protected to some extent by its location on a damper south-facing slope. The forest remnant extends up the gully onto an adjoining property (Area 207b). A small ephemeral stream (dry at the time of inspection) is present in the gully. This forest remnant is approximately 1½ km from a relatively large area of remnant indigenous forest in Talbot Forest Scenic Reserve and less than one kilometre from an area of indigenous forest protected by a QEII Covenant. Other patches of indigenous forest and treeland are present nearby.

Condition and Management Issues:

The forest remnant is in relatively good condition. The forest understorey is fairly open in places, presumably as a result of grazing, though there is reasonably good regeneration of totara and some of the small-leaved shrub and tree species. Fencing and removal of stock would assist regeneration of understorey and canopy species, though removal of grazing would need to be followed by weed control to help prevent the further establishment of invasive weeds such as hawthorn, elderberry, sycamore and barberry. Ideally, existing woody weeds with bird-dispersed fruits (notably hawthorn and elderberry) should be removed, as the presence of these species poses an ongoing threat to this and other remnants of indigenous forest in the area. Any shade-tolerant naturalised trees (notably sycamore) should also be removed, as these species also pose a threat to this and other indigenous forest remnants in the area. Control and management of the invasive native climber pohuehue on the forest margin may be beneficial, though effective control may be difficult to achieve.

Property Owner Comment:

Miro and one rimu sapling are also present in the forest. They value the bush as part of their property.

ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:

Primary Criteria	Rank	Notes
Representativeness	M/H	A good example of the indigenous forest that was originally present in the ecological district.
Rarity	M/H	The forest supports a chronically threatened species, <i>Brachyglottis sciadophila</i> and provides habitat for kereru (both 'gradual decline').
Diversity and pattern	M	Species diversity is reduced from that originally present at the site.
Distinctiveness/special features	M/H	The larger trees in the forest have cavities that provide suitable roost sites for long-tailed bat (present nearby in Talbot Forest). The forest is part of a network of fauna habitat on the Geraldine Downs.
Other Criteria		
Size/shape	M	The area of forest is small, though it has a good shape and could easily be buffered or protected from activities on adjoining land.
Connectivity	M/H	This area is relatively close to other areas of indigenous vegetation and provides an ecologically-viable stepping stone of habitat for long-tailed bat and kereru.
Long-term Sustainability	M	Control of plant and animal pests, and encouragement of understorey regeneration, will probably be required for the maintenance of ecological values in the long term.

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

This area of forest has 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. It is also an attractive patch of forest that is clearly visible from nearby houses and distantly visible from Downs Road. Some management will be required to maintain the ecological values of this area in the long-term.

Discussion:

This forest remnant easily meets the District Plan criteria for a Significant Natural Area. Important attributes are the presence of remnant and regenerating podocarp trees (totara and kahikatea), the habitat the forest provides for fauna (kereru and possibly long-tailed bat) and the presence of the threatened plant *Brachyglottis sciadophila* and locally uncommon species (notably dwarf mistletoe).

Scientific names of species cited by common name

Common Name	Scientific name
(* = naturalised species)	
barberry*	<i>Berberis glaucocarpa</i>
bidibid	<i>Acaena</i> sp.
bittersweet*	<i>Solanum dulcamara</i>
blackberry*	<i>Rubus fruticosus</i>
black nightshade*	<i>Solanum nigrum</i>
broadleaf	<i>Griselinia littoralis</i>
bush lawyer	<i>Rubus cissoides</i>
cabbage tree/ti rakau	<i>Cordyline australis</i>
common pennywort	<i>Hydrocotyle novae-zeelandiae</i>
dwarf mistletoe	<i>Korthalsella lindsayi</i>
elderberry*	<i>Sambucus nigra</i>
five-finger	<i>Pseudopanax arboreus</i>
foxglove*	<i>Digitalis purpurea</i>
fuchsia	<i>Fuchsia excorticata</i>
gooseberry*	<i>Ribes uva-crispa</i>
hawthorn*	<i>Crataegus monogyna</i>
hen and chickens fern	<i>Asplenium bulbiferum</i>
horopito/pepperwood	<i>Pseudowintera colorata</i>
kahikatea/white pine	<i>Dacrycarpus dacrydioides</i>
kaikomako	<i>Pennantia corymbosa</i>
lancewood	<i>Pseudopanax crassifolius</i>
lawyer	<i>Rubus schmidelioides</i>
lemonwood	<i>Pittosporum eugenioides</i>
lowland ribbonwood	<i>Plagianthus regius</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>
pohuehue	<i>Muehlenbeckia australis</i>
pokaka	<i>Elaeocarpus hookerianus</i>
poroporo	<i>Solanum laciniatum</i>
rimu/red pine	<i>Dacrydium cupressinum</i>
shrubby mahoe	<i>Melicytus micranthus</i>
sycamore*	<i>Acer pseudoplatanus</i>
thistle*	<i>Cirsium</i> spp.
totara	<i>Podocarpus totara</i>
white climbing rata	<i>Metrosideros diffusa</i>
wineberry	<i>Aristotelia serrata</i>