

**TIMARU DISTRICT
SIGNIFICANT NATURAL AREAS
SURVEY**

HARDING PROPERTY



**Report prepared for the Timaru District Council by Mike Harding
July 2006**

TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

PROPERTY REPORT

PROPERTY DETAILS:

Owner:M and J Harding
Valuation Reference:24660/028.01
Address:Totara Road, Woodbury, RD 21, Geraldine
Location:.....West of Totara Road on the south side of the Waihi River,
northwest of Woodbury.
Ecological District:Geraldine Ecological District
TDC Land Type:.....Plains
Land Environment:N2 (well drained plains)

ECOLOGICAL CONTEXT:

The property lies in the northern part of the Geraldine Ecological District, on the outwash plain of the Waihi River. The original vegetation of this area would have been predominantly podocarp-hardwood forest, dominated by totara. Other important canopy species at free-draining (drought-prone) sites were probably matai, narrow-leaved lacebark, lemonwood and fivefinger. Damper sites would have supported kahikatea and lowland ribbonwood. Tall kanuka-kowhai forest and areas of matagouri-*Coprosma-Olearia* shrubland would probably have been present on disturbed surfaces, such as recent river flats and terrace scarps. The indigenous fauna would have been significantly more numerous and diverse, with a greater range of birds, lizards and invertebrates than are presently found in the area.

Indigenous vegetation on the property is predominantly strongly regenerating podocarp forest dominated by totara, most of which has probably grown since the original forests were logged in the 1850s. However, some individual indigenous trees may pre-date logging and are therefore representative of the original vegetation. Forest on the property is part of a more extensive area of scattered to dense totara-dominated forest which stretches from the foothills at Waihi Gorge to Waihi Bush near Woodbury. This forest is the most extensive area of totara forest remaining on the Canterbury Plains. One notable tree is present on the property: *Melicytus flexuosus*, though it is possible this is an old planted specimen. Severally locally-rare plant species are present: dwarf mistletoe (*Korthalsella lindsayi*), *Coprosma rubra*, *Melicytus* aff. *alpinus* and swamp kiokio (*Blechnum minus*). Two threatened bird species have been observed on the property: kereru (gradual decline) and rifleman (gradual decline). The property lies within the existing range of the South Canterbury population of long-tailed bat (nationally-endangered).

SIGNIFICANT AREAS ON THE PROPERTY:

The property was surveyed as part of the District-wide survey of Significant Natural Areas during June 2006. All parts of the property were visited and the indigenous forest assessed as one Area. This area of forest (comprising approximately half a hectare) is regarded as significant when assessed against the District Plan criteria.

The indigenous forest on the property that is identified as a Significant Natural Area (SNA) is illustrated on the attached aerial photograph and described in greater detail on the Area Inspection Form in this report. This area 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 a 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 or the maintenance of tracks and fences. 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.

SIGNIFICANT TREES ON THE PROPERTY:

One significant tree is present on the property.

Melicytus flexuosus:

This attractive spherical-shaped shrub is located on the northeast boundary of the property beside Totara Road, at map reference 2365418E-56855630N. It is a threatened species (threat status: gradual decline). The only other known specimens of this species in the Timaru District are at Peel Forest. It is possible that this shrub was originally planted, though it appears to be an old plant.

Harding Property
24660/028.01



1:1,500

TIMARU DISTRICT SNA SURVEY

AREA 581a

| | | |
|-----------------------------------|-----------------------------|--------------------------|
| Area Number: 581a | Area Name: Totara Road West | Date: 1 and 27 June 2006 |
| Property: M and J Harding | Surveyors: Mike Harding | |
| Weather Conditions: fine and cool | Time Spent at Area: 4 hours | |

| | |
|---|-----------------------------------|
| Location (central grid reference): J37: 653-855 | Nearest Locality: Woodbury |
| Ecological District: Geraldine | Approximate size of Area: 0.47 ha |
| | Altitude: 225 m |

General description of Area:

A small patch of strongly-regenerating podocarp forest on the outwash plain of the Waihi River, on the west side of Totara Road near Woodbury.

General description of plant communities and habitats:

Totara-matai forest in two patches, surrounded by pasture, domestic gardens and amenity trees.

Detailed vegetation description:

(naturalized species are identified with an asterisk*)

The forest canopy is dominated by totara, with matai, narrow-leaved lacebark, cherry plum* and fivefinger. Also present in the canopy are pohuehue and native jasmine.

Common understorey species are *Melicope simplex*, *Coprosma rigida*, *C. crassifolia*, *C. propinqua*, matipo, weeping mapou and native jasmine.

Other understorey species are *Coprosma rubra*, *C. rotundifolia*, yellowwood, broadleaf, lemonwood, fivefinger, lancewood, mapou, poroporo, mistletoe (on totara), *Melicytus* aff. *alpinus*, lawyer, mahoe, cabbage tree, *Clematis* sp., bittersweet*, black nightshade*, barberry*, Chilean flame creeper*, gooseberry*, a single holly* shrub, spindle tree* and a single kahikatea sapling.

Common ground-cover species are necklace fern, stinking iris*, violet* and hedge woundwort*.

Other groundcover species are *Asplenium appendiculatum*, *A. richardii*, bush lily, sycamore* seedlings, foxglove*, male fern*, one old man's beard* vine and rowan* seedlings. Ivy is present in one isolated patch of forest.

Also present on the forest margin are a single young tree of lowland ribbonwood, bush lawyer, *Calystegia tuguriorum*, dwarf mistletoe (on *Melicope simplex*), wineberry, hound's tongue fern, fuchsia, *Coprosma robusta*, horehound*, blackberry*, honesty*, gorse* and broom*. Stonecrop* is present on rock walls at the forest edge.

Present beside a water race on the western boundary of the forest are *Polystichum richardii*, swamp kiokio and Himalayan honeysuckle*.

Single planted trees of Lawson's cypress, *Eucalyptus* sp., kowhai (*Sophora tetrapetala*) and red beech are present within or on the margins of the Area.

A single shrub of *Melicytus flexuosus* is present at the northeast corner of the property alongside Totara Road, although it is possible that this is a planted shrub. Scattered trees of totara, matai and narrow-leaved lacebark are present in the paddock northeast of the Area.

Native birds observed:

Kereru, fantail, bellbird, grey warbler and harrier were observed during the survey. Rifleman, silveryeye, welcome swallow and shining cuckoo are also frequently present. Falcon have been observed in the area.

Notable flora, fauna or habitats:

The *Melicytus flexuosus* shrub (threat status: gradual decline) adjacent to the Area is the most notable plant present. Four locally uncommon species are present: dwarf mistletoe (*Korthalsella lindsayi*), swamp kiokio (*Blechnum minus*), *Coprosma rubra* and *Melicytus* aff. *alpinus*. Most of the trees in the Area appear to have regenerated since forest removal in the 1850s, however one matai tree with a trunk diameter of 72 cm appears to be an older tree. The forest provides breeding habitat for kereru (gradual decline) and seasonal feeding habitat for rifleman (gradual decline).

General condition of Area:

The forest canopy is in relatively good condition, though several large cherry plum trees are present. The forest has not been grazed for at least five years. Weed control is occurring, though considerable effort is still required to control aggressive weeds, especially herbaceous ground-cover weeds.

Notable plant and animal pests:

Numerous weeds are present in the understorey and on the forest floor. Most prominent are stinking iris, hedge woundwort, violet and black nightshade. Cherry plum is the most prominent and aggressive woody weed present. A number of other woody weeds are present though are not dominant. Sycamore and elderberry trees, flowering currant bushes and old man's beard vines have been removed from the Area over the previous two years.

Boundaries: (buffering, fencing, adjoining plant communities/habitat etc.):

The Area is fenced. It is buffered to some extent by a water race along part of its western boundary and by gardens and amenity plantings on its eastern boundary. It adjoins fenced pasture along other boundaries.

Present management and management issues:

Weed control is the most important management issue.

Property Owner Comment:

Weeds are gradually being removed from the forest, though it is expected to take considerable time and effort to remove infestations, especially infestations of ground-cover weeds. It is not intended to graze the area. Native species planted in the vicinity of the Area have been restricted to locally-sourced material.

ASSESSMENT (against District Plan criteria):

| Primary Criteria | Rank | Notes |
|----------------------------------|------|---|
| Representativeness | H | A good, albeit small, example of the vegetation originally present in the ecological district. |
| Rarity | M/H | Provides useful habitat for two chronically-threatened species: kereru (gradual decline) and rifleman (gradual decline). Also supports several locally uncommon species: dwarf mistletoe (<i>Korthalsella lindsayi</i>), swamp kiokio (<i>Blechnum minus</i>), <i>Coprosma rubra</i> and <i>Melicytus</i> aff. <i>alpinus</i> . |
| Diversity and pattern | M | Diversity is somewhat reduced from that originally present. |
| Distinctiveness/special features | M | The position of the Area as part of scattered forest remnants on the Waihi River plain is an important feature. |
| Other Criteria | | |
| Size/shape | L/M | A small area with a poor shape for ecological sustainability, though well buffered and protected. |
| Connectivity | M | Close to larger areas of similar vegetation and part of a network of important lowland forest bird habitat. |
| Long-term Sustainability | L/M | Modified and threatened by weeds; will require intensive management to maintain its values. |
| SNA (yes/no): | YES | |

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

The Area has been informally protected by the landowners. Forest management has included maintenance of fences, creation of tracks and the targeted removal of weeds. The health of the forest will depend on continued control of aggressive plant pests. Trimming or removal of indigenous vegetation to prevent shading of buildings, to facilitate weed control, or to maintain tracks and fences can be achieved here without having a major effect on the ecological integrity of the Area, provided such actions were undertaken sympathetically.

Discussion:

Although the Area supports forest that, for the most part, appears to be regenerating (rather than original) forest, it is largely representative of the forest originally present and is part of an area of forest that is the best example of totara forest in the ecological district. The Area easily meets the District Plan's significance criteria.

Scientific names of species cited by common name

Common Name Scientific name

(* = naturalised species)

| | |
|------------------------|---------------------------------|
| barberry* | <i>Berberis glaucocarpa</i> |
| bittersweet* | <i>Solanum dulcamara</i> |
| blackberry* | <i>Rubus fruticosus</i> |
| black nightshade* | <i>Solanum nigrum</i> |
| broadleaf | <i>Griselinia littoralis</i> |
| broom* | <i>Cytisus scoparius</i> |
| bush lawyer | <i>Rubus cissoides</i> |
| bush lily | <i>Astelia</i> sp. |
| cabbage tree/ti rakau | <i>Cordyline australis</i> |
| cherry plum* | <i>Prunus cerasifera</i> |
| Chilean flame creeper* | <i>Tropaeolum speciosum</i> |
| dwarf mistletoe | <i>Korthalsella lindsayi</i> |
| elderberry* | <i>Sambucus nigra</i> |
| fivefinger | <i>Pseudopanax arboreus</i> |
| flowering currant* | <i>Ribes sanguineum</i> |
| foxglove* | <i>Digitalis purpurea</i> |
| fuchsia | <i>Fuchsia excorticata</i> |
| gooseberry* | <i>Ribes uva-crispa</i> |
| gorse* | <i>Ulex europaeus</i> |
| hedge woundwort* | <i>Stachys sylvatica</i> |
| Himalayan honeysuckle* | <i>Leycesteria formosa</i> |
| horehound* | <i>Marrubium vulgare</i> |
| holly* | <i>Ilex aquifolium</i> |
| honesty* | <i>Lunaria annua</i> |
| hound's tongue fern | <i>Microsorium pustulatum</i> |
| ivy* | <i>Hedera helix</i> |
| kahikatea/white pine | <i>Dacrycarpus dacrydioides</i> |
| lancewood | <i>Pseudopanax crassifolius</i> |
| Lawson's cypress* | <i>Chamaecyparis lawsoniana</i> |
| lawyer | <i>Rubus schmidelioides</i> |
| lemonwood | <i>Pittosporum eugenioides</i> |
| lowland ribbonwood | <i>Plagianthus regius</i> |
| mahoe/whiteywood | <i>Meliccytus ramiflorus</i> |
| male fern* | <i>Dryopteris filix-mas</i> |
| mapou | <i>Myrsine australis</i> |
| matai/black pine | <i>Prumnopitys taxifolia</i> |
| matipo/kohuhu | <i>Pittosporum tenuifolium</i> |
| mistletoe | <i>Ileostylis micranthus</i> |
| narrow-leaved lacebark | <i>Hoheria angustifolia</i> |
| native jasmine | <i>Parsonsia</i> sp. |
| necklace fern | <i>Asplenium flabellifolium</i> |
| old man's beard* | <i>Clematis vitalba</i> |
| pohuehue | <i>Muehlenbeckia australis</i> |
| poroporo | <i>Solanum laciniatum</i> |
| red beech | <i>Nothofagus fusca</i> |
| rowan* | <i>Sorbus aucuparia</i> |
| spindle tree* | <i>Euonymus europaeus</i> |
| stinking iris* | <i>Iris foetidissima</i> |
| stonecrop* | <i>Sedum acre</i> |
| swamp kiokio | <i>Blechnum minus</i> |
| sycamore* | <i>Acer pseudoplatanus</i> |
| totara | <i>Podocarpus totara</i> |
| violet* | <i>Viola odorata</i> |
| weeping mapou | <i>Myrsine divaricata</i> |

| | |
|-----------------|------------------------------|
| wineberry | <i>Aristotelia serrata</i> |
| yellowwood..... | <i>Coprosma linariifolia</i> |