

**TIMARU DISTRICT**  
**SIGNIFICANT NATURAL AREAS**  
**SURVEY**

**HOLMES PROPERTY**

**Report prepared for the Timaru District Council by Mike Harding**  
**May 2011**

# TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

## PROPERTY REPORT

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### PROPERTY DETAILS:

**Owner:** ..... Alastair Holmes  
**Valuation Reference:** ..... 24660/199.00  
**Address:** ..... McKeown Road, Geraldine 7991  
**Location:** ..... McKeown Road, southwest of Woodbury  
**Ecological District:** ..... Geraldine Ecological District  
**TDC Land Type:** ..... Plains  
**Land Environment:** ..... N2 (well drained plains)

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### 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 matai and totara. Other important canopy species at free-draining (drought-prone) sites were probably narrow-leaved lacebark, lemonwood and five-finger. 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 is presently found in the area.

Indigenous vegetation on the property comprises three small remnants of matai-totara forest, containing trees that probably pre-date human settlement of the area.

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### SIGNIFICANT AREAS ON THE PROPERTY:

The property was surveyed as part of the District-wide survey of Significant Natural Areas during April 2011. The three forest remnants are regarded as significant when assessed against the District Plan criteria.

The indigenous forest patches 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 report. These areas meet the ecological criteria in the Timaru District Plan (criteria i-vi, pages B18-B19) and are considered to be sustainable in the long term (criterion vii, page B19) with appropriate management. SNAs are subject to confirmation by Council after regarding the matters listed under Final Considerations (pages B19-B20).

At present, consent is required from Council for clearance of areas of indigenous vegetation or habitat which meet the Interim Definitions in the District Plan. Clearance includes burning, spraying with herbicides and over-planting. SNAs encompass most, but not necessarily all, areas of vegetation and habitat which meet the Interim Definitions.

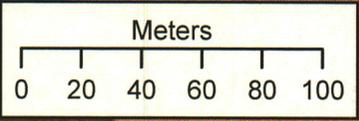
To assist with the protection and management of any SNA, landowners can apply to Council for financial assistance. Any questions regarding the protection, management and use of SNAs should be directed to the District Planner.



Holmes Property  
24660/199.00



1:2,500



McKeown Road

# TIMARU DISTRICT SNA SURVEY

# SNA 738a, b and c

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|  |   |
|--|---|
| <b>Area Name:</b> Holmes forest remnants                   | <b>Property:</b> Alastair Holmes                        |
| <b>Ecological District:</b> Geraldine                      | <b>Nearest Locality:</b> Woodbury                       |
| <b>SNA 738a: Location</b> (central map ref.): J37: 653-835 | <b>Area Size (ha):</b> 0.19 <b>Altitude (m):</b> 190    |
| <b>SNA 738b: Location</b> (central map ref.): J37: 653-834 | <b>Area Size (ha):</b> 0.17 <b>Altitude (m):</b> 190    |
| <b>SNA 738c: Location</b> (central map ref.): J37: 653-833 | <b>Area Size (ha):</b> 0.36 <b>Altitude (m):</b> 190    |
| <b>Surveyors:</b> Mike Harding and Alastair Holmes         | <b>Survey Time:</b> ¾ hour <b>Survey Date:</b> 12-04-11 |

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## General Description:

These three small SNAs lie on the outwash plain of the Waihi River, southwest of Woodbury. They comprise remnants of the original matai-totara forest that was previously present on these free-draining and drought-prone gravels.

## Plant Communities:

The main plant community present at these SNAs is podocarp (matai-totara) forest. This plant community is described below for each SNA. Naturalized (exotic) species are indicated with an asterisk\*.

### Northern remnant (SNA 738a):

The canopy of this patch of forest is dominated by old trees of matai and totara. Small clumps of the native climber, pohuehue, are present in the canopy at the forest edge. The forest understorey is open and periodically grazed. It is dominated by pasture grasses. Also present are black nightshade\*, velvety nightshade\* and broad-leaved dock\*.

### Middle remnant (SNA 738b):

This is the most intact of the forest remnants. The forest canopy is dominated by matai and totara. Trunk diameters (at breast height) of the larger trees are mostly 50 to 65cm (matai) and 30 to 45cm (totara), though one larger totara is present. Individual trees of matipo, narrow-leaved lacebark, *Coprosma crassifolia* and hawthorn\* are present in the sub-canopy. Clumps of pohuehue are present.

The forest floor is dominated by periwinkle\*. Other plant species present in the understorey are cabbage tree, elderberry\*, velvety nightshade\*, black nightshade\*, poroporo, plum\* and nettle\*.

### Southern remnant (SNA 738c):

This forest patch is dominated by exotic trees, mostly sycamore\*. Three large and several small totara trees are present, including one tree with a trunk diameter of 107cm. The understorey here is very open, with occasional plants of black nightshade\* and, on the forest floor, small patches of pennywort.

## Birds/Fauna Observed:

Native birds observed during this brief survey were fantail and grey warbler. Other native birds are likely to be present, at least occasionally, including kereru (Alastair Holmes, *pers.comm.*).

## Notable Flora, Fauna and Habitats:

Important features of this area are the presence of large old podocarp trees, the location of the forest remnants on an outwash surface (plain) and the habitat the forest provides for birds.

## Notable Plant and Animal Pests:

Sycamore is the most important plant pest in SNA 738c and periwinkle the most important in SNA 738b. Pohuehue (*Muehlenbeckia australis*) is present but not dominant in all three SNAs, though this species has been controlled (Alastair Holmes, *pers.comm.*). Other important plant pests are hawthorn, elderberry and plum. Animal pests were not surveyed, though possums are likely to be present.

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

These forest remnants are isolated from other patches of indigenous forest in the area, though are close enough to provide habitat for forest birds. The remnants are not well buffered but are within small fenced paddocks that enable management of grazing.

**Condition and Management Issues:**

The forest canopies of these small remnants are in relatively good condition. The forest understories are depleted and modified, as is typical of many small lowland forest remnants. The landowner has undertaken some weed control (notably pohuehue) and the blocks are grazed lightly to assist with weed control. Restoration of the forest understorey is the most important management issue, though weed control would be necessary if grazing ceased, especially in SNA 738c where sycamore would proliferate.

**Property Owner Comment:**

Alastair Holmes intends to remove or control sycamore in SNA 738c.

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**ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:**

| <b>Primary Criteria</b>          | <b>Rank</b> | <b>Notes</b>   |
|----------------------------------|-------------|--|
| Representativeness               | M/H         | The forest canopy is representative of the original vegetation of the area, though the forest understorey is substantially depleted. |
| Rarity                           | M/H         | Podocarp forest on lowland alluvial surfaces is now a rare plant community, especially in Canterbury.                                |
| Diversity and pattern            | L/M         | Diversity of plant species in these SNAs is substantially reduced, especially in the understorey.                                    |
| Distinctiveness/special features | M/H         | The large old matai and totara trees, which most likely pre-date human settlement, are notable features.                             |
| <b>Other Criteria</b>            |             |  |
| Size/shape                       | L/M         | Small remnants with reasonable shapes but not well buffered.   |
| Connectivity                     | L/M         | Isolated from other forest remnants in the area, though close enough to contribute to the network of forest bird habitat.            |
| Long-term Sustainability         | L/M         | Restoration of the forest understorey will eventually be necessary for long-term maintenance of ecological values.                   |

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

These small forest remnants are near the homestead and farm buildings. They provide shelter and shade and add considerable amenity value to the property.

**Discussion:**

These areas meet the District Plan criteria for Significant Natural Areas. Important features of the areas are the presence of large old podocarp trees, the location of the remnants on an outwash surface (plains) and the habitat the forest provides for birds.

### Scientific names of species cited by common name

(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)

|                        |                                    |
|------------------------|------------------------------------|
| black nightshade*      | <i>Solanum nigrum</i>              |
| broad-leaved dock*     | <i>Rumex obtusifolius</i>          |
| cabbage tree/ti rakau  | <i>Cordyline australis</i>         |
| elderberry*            | <i>Sambucus nigra</i>              |
| five-finger            | <i>Pseudopanax arboreus</i>        |
| hawthorn*              | <i>Crataegus monogyna</i>          |
| kahikatea/white pine   | <i>Dacrycarpus dacrydioides</i>    |
| kanuka                 | <i>Kunzea ericoides</i>            |
| kowhai                 | <i>Sophora microphylla</i>         |
| lemonwood              | <i>Pittosporum eugenioides</i>     |
| lowland ribbonwood     | <i>Plagianthus regius</i>          |
| matagouri              | <i>Discaria toumatou</i>           |
| matai/black pine       | <i>Prumnopitys taxifolia</i>       |
| matipo/kohuhu          | <i>Pittosporum tenuifolium</i>     |
| narrow-leaved lacebark | <i>Hoheria angustifolia</i>        |
| nettle*                | <i>Urtica urens</i>                |
| pennywort              | <i>Hydrocotyle novae-zelandiae</i> |
| periwinkle*            | <i>Vinca major</i>                 |
| plum*                  | <i>Prunus cerasifera</i>           |
| pohuehue               | <i>Muehlenbeckia australis</i>     |
| poroporo               | <i>Solanum laciniatum</i>          |
| sycamore*              | <i>Acer pseudoplatanus</i>         |
| totara                 | <i>Podocarpus totara</i>           |
| velvety nightshade*    | <i>Solanum chenopodioides</i>      |