

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

**INGRID INVESTMENTS**  
**BOLT PROPERTY**



Report prepared for Timaru District Council by Mike Harding  
July 2014

# TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

## PROPERTY REPORT

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### PROPERTY DETAILS:

**Owner:** ..... Ingrid Investments (B&I Bolt)  
**Valuation Reference:** ... 24670/029.00  
**Address:** ..... Te Moana Road  
**Location:** ..... Lower northwest slopes of Waitohi Hill  
**Ecological Districts:** ..... Boundary of Orari and Geraldine  
**TDC Land Type:**..... 'Soft Rock Hills and Downs'  
**Land Environments:**..... N2.1d; N3.1a and Q2.1a

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### ECOLOGICAL CONTEXT:

The property lies on the lower northwest slopes of the Waitohi Hill in Pleasant Valley, Te Moana. It lies on the boundary of Geraldine and Orari ecological districts (McEwen, 1987). Lower-altitude parts of the property lie in the N2.1d and N3.1a, and upper slopes within the Q2.1a, Level IV Land Environments as defined by Leathwick *et al* (2003). Indigenous vegetation within the N2.1d and N3.1a land environment is regarded as acutely-threatened (Walker *et al*, 2005), as less than 10% of this vegetation remains nationally.

It is likely that the original vegetation of this area was predominantly podocarp-hardwood forest, dominated by kahikatea, matai, totara, kowhai, broadleaf and other hardwood trees. Kanuka and manuka low-forest/shrubland may have occupied disturbed sites. Sedgeland and rushland (wetland) vegetation would have been present at poorly drained valley-floor sites.

Today the original forest cover in this part of the Geraldine and Orari ecological districts is largely confined to remnants in gullies or on steep slopes. Otherwise, the indigenous vegetation of the ecological district is substantially depleted or modified. The indigenous fauna would have originally been significantly more numerous and diverse, with a greater range of birds, lizards and invertebrates than is presently found in the area. The property lies within the known range of long-tailed bat (a nationally threatened species), though it is possible that bats are no longer present in the area.

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### SIGNIFICANT AREAS ON THE PROPERTY:

Indigenous vegetation on the property comprises remnant podocarp forest, regenerating podocarp-hardwood forest and kanuka forest. Forest on the property adjoins other areas of indigenous forest in Geraldine Forest (Blakely Pacific) and contributes to the network of fauna habitat in the wider area.

The property was surveyed as part of the District-wide survey of Significant Natural Areas during July 2014. Six areas, comprising approximately 29 hectares, are regarded as Significant Natural Areas (SNAs) when assessed against the District Plan criteria. These SNAs are listed in the table below.

| Area No. | Area Name | Map reference (NZTM) | Aprox. size (ha) | Vegetation/habitat type  |
|----------|-----------|----------------------|------------------|--------------------------|
| 50a      |           | 1448780E-5120650N    | 0.75             | Podocarp forest remnant  |
| 50b      |           | 1448540E-5120480N    | 0.52             | Podocarp-hardwood forest |
| 50c      |           | 1449000E-5120590N    | 1.51             | Podocarp-hardwood forest |
| 50d      |           | 1448630E-5120725N    | 0.07             | Podocarp forest remnant  |
| 53c      |           | 1448180E-5121000N    | 10.83            | Podocarp-hardwood forest |
| 54c      |           | 1448185E-5120520N    | 16.07            | Podocarp-hardwood forest |

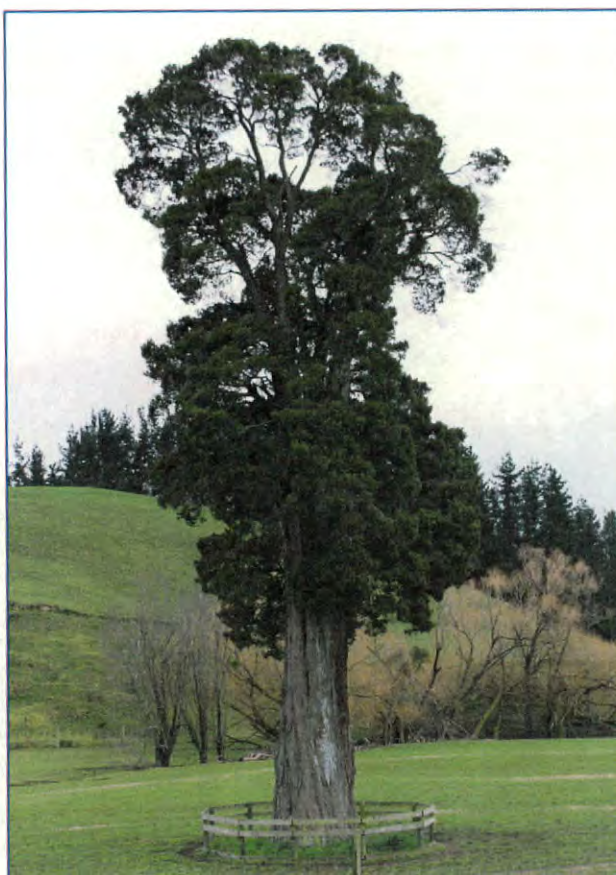
The boundaries of these SNAs are illustrated on the aerial photograph and the values described on the SNA Forms in this report. Note that the boundaries of the SNAs are indicative, rather than precise. These areas meet the ecological criteria in the Timaru District Plan (criteria i-vi, pages B18-B19) and are considered to be sustainable in the long term, or sustainable with appropriate management (criterion vii, page B19). SNAs are subject to confirmation by Council after regarding the matters listed in the District Plan (pages B19-B20). It is expected that SNAs will eventually be listed in the District Plan by way of a notified plan change.

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, track construction, spraying with herbicides and over-planting.

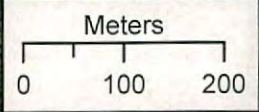
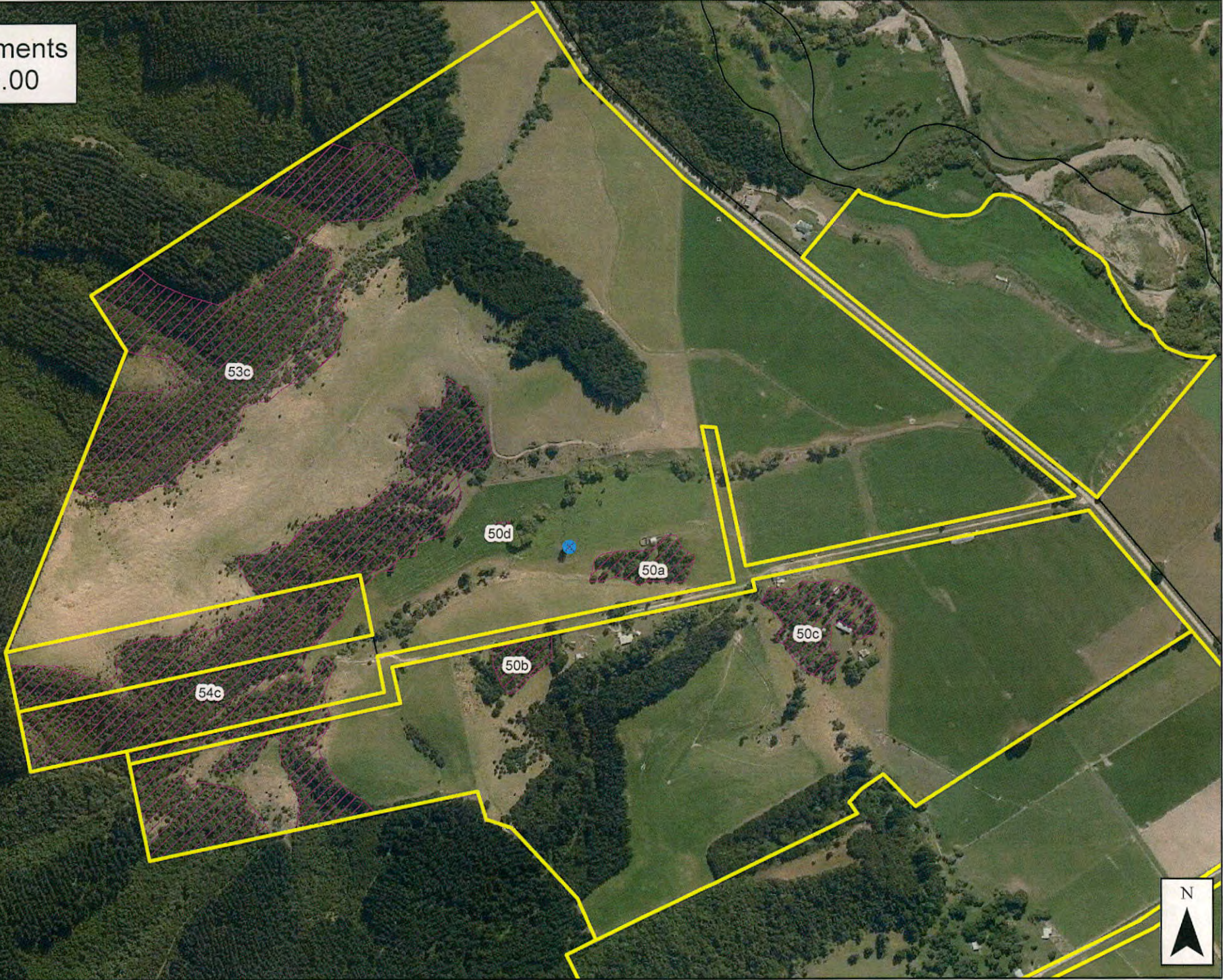
To assist with the protection and management of any SNA, landowners can apply to Council for financial assistance. Any questions regarding the protection, management and use of SNAs should be directed to the District Planner.

#### **SIGNIFICANT TREES ON THE PROPERTY:**

One large totara tree in the paddock just northwest of SNA 50a is significant. This impressive specimen has a trunk diameter (at breast height) of 240cm. It is likely to be several hundred years old. The tree is protected from grazing animals by a wooden fence.



Ingrid Investments  
24670/029.00



**Area Name:**

Ecological District: Geraldine

50a: Map ref. (NZTM): 1448780E-5120650N

50b: Map ref. (NZTM): 1448540E-5120480N

50c: Map ref. (NZTM): 1449000E-5120590N

50d: Map ref. (NZTM): 1448630E-5120725N

Surveyor: Mike Harding

Property: Ingrid Investments (B&amp;I Bolt)

Nearest Locality: Te Moana

Area Size (ha): 0.75      Altitude (m): 250

Area Size (ha): 0.52      Altitude (m): 280-300

Area Size (ha): 1.51      Altitude (m): 240

Area Size (ha): 0.07      Altitude (m): 250

Survey Time: 2 hours      Survey Date: 16-07-14

**General Description:**

These four small SNAs are at the lower-lying part of the property near the farm buildings. SNA 50b lies on a gently-sloping ridge. The other three SNAs lie on flat alluvial sites. All four are within the depleted Land Environments (N2.1d or N3.1a) in which indigenous is regarded as acutely threatened. SNA 50b has some understorey regeneration; the other sites comprise old remnant trees over grazed pasture. The sites are grouped together here because they have similar ecological values.

**Plant Communities:**

These SNAs support depleted remnants of the original forest, comprising large trees some of which are probably hundreds of years old. The forest remnants are described separately for each SNA below. Naturalized (exotic) species are indicated with an asterisk\*.

SNA 50a:

This SNA lies on an alluvial terrace below and north of the homestead. It is dominated by large old trees of kahikatea, totara and kowhai. Also present are trees of matai, pokaka, mahoe and turepo. Trunk diameters (at breast height) of the larger trees are: kahikatea, 50 to 75cm; totara, 60 to 90 cm; kowhai, 45 to 75cm; matai, 55 to 65cm; pokaka, 87cm; and turepo, 41cm. There is no understorey vegetation and the forest floor is dominated by pasture grasses.



A very large totara tree is present in the paddock just northwest of this SNA. This impressive specimen has a trunk diameter of 240cm. It is protected from grazing animals by a wooden fence. It is identified separately as a significant tree.

SNA 50b:

This SNA is on the low ridge just west of the homestead. It is dominated by large kanuka trees, with trunk diameters (at breast height) between 25 and 35cm. Also present are moderate-sized trees of totara, kahikatea and pokaka. Other canopy species are mapou, lancewood, mahoe, broadleaf, lemonwood and pohuehue. The forest



understorey is relatively open. Species present are *Coprosma crassifolia*, *Coprosma rotundifolia*, *Coprosma rhamnoides*, matipo, poataniwha and young totara trees. Species present on the forest floor are pennywort, native jasmine, black nightshade\*, necklace fern, *Hypolepis ambigua* and bidibid. Planted exotic trees are present at the forest margins.

#### SNA 50c:

This SNA lies on the lower alluvial terrace by the old farm buildings. It is dominated by large old trees of kowhai. Also present are trees of kahikatea, totara and matai, narrow-leaved lacebark and lowland ribbonwood. Trunk diameters (at breast height) of the larger trees are: kahikatea, c.160cm; kowhai, 60 to 75cm; narrow-leaved lacebark, 75cm; and lowland ribbonwood, 45cm. Other canopy or sub-canopy species present



are mahoe, fuchsia, rohutu, lancewood, lemonwood, walnut\* and pohuehue. Understorey species present, mostly at the edge of the forest patch on the terrace scarp, are *Coprosma rhamnoides*, *Coprosma rubra*, *Coprosma propinqua*, mapou and kowhai. Species present on the forest floor are pennywort, hen and chickens fern, *Asplenium bookerianum*, button fern, common shield fern, *Blechnum fluviatile*, *Hypolepis ambigua* and black nightshade\*.

#### SNA 50d:

This SNA is on the alluvial terrace on the north side of the main valley. It comprises a small stand of totara trees with a single kahikatea tree. There is no forest understorey and the forest floor is grazed pasture.



#### **Birds/Fauna Observed:**

Native birds observed during this brief survey were grey warbler, kereru (NZ pigeon), bellbird and fantail. Other bird species likely to be present are silveryeye, rifleman and brown creeper. A large number of kereru were present at the time of survey, especially on the flowering kowhai trees in SNAs 50a and 50c.

#### **Notable Flora, Fauna and Habitats:**

Important features of these areas are the presence of large old trees. There are some impressive specimens, including a kahikatea with a trunk diameter of approximately 160cm (SNA 50c), kowhai 75cm and pokaka 87cm (SNA 50a). These trees are probably several hundred years' old and most likely pre-date European settlement. One locally-uncommon plant species (*Coprosma rubra*) is present in SNA 50b. These forest patches provide important seasonal food sources for birds such as kereru and bellbird, especially the fruits of the large podocarp (kahikatea, matai and totara) trees and the flowers and foliage of the kowhai trees.

**Notable Plant and Animal Pests:**

No significant plant pests were observed. Animal pests were not surveyed, though possums will be present.

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

The boundaries of these areas are defined by the canopy trees. The areas are not fenced and are grazed. These forest patches lie close to larger more intact areas of indigenous forest on nearby hill slopes and make an important contribution to the network of fauna habitat in the area.

**Condition and Management Issues:**

The canopy trees in these patches are mostly in good condition. Some tree trunks have been damaged by cattle and/or deer. These forest patches lack understorey or forest floor vegetation. The most important management issue is the regeneration of canopy species. This would require fencing from grazing and subsequent plant pest control.

**ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:**

| Primary Criteria                 | Rank | Notes   |
|----------------------------------|------|---|
| Representativeness               | M    | Depleted examples of forest representative of that originally present in the ecological district.                 |
| Rarity                           | H    | Indigenous vegetation in a depleted (acutely-threatened) land environment.  |
| Diversity and pattern            | L/M  | Plant species diversity is low and much reduced from that originally present.                                     |
| Distinctiveness/special features | M/H  | Impressive sized trees that are probably hundreds of years old; provide important seasonal food source for birds. |
| Other Criteria                   |      |   |
| Size/shape                       | M    | Small patches, though relatively large for depleted lowland sites.  |
| Connectivity                     | M    | Lie close to other areas of indigenous vegetation and are part of a network of forest bird habitat.               |
| Long-term Sustainability         | L/M  | Regeneration of canopy species will be needed to maintain the ecological values of these areas in the long term.  |

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

The large trees that make these areas significant are remnants of the original forest on the property. They are grazed though the presence of trees restricts further development, such as cultivation. The trees provide useful shade and shelter for stock and have high amenity value. The trees will eventually senesce and die, so the SNAs will not persist unless there is regeneration of canopy species.

**Discussion:**

These areas meet the District Plan criteria for Significant Natural Areas. Important features of the areas are the presence of large old trees, including some impressive specimens, one locally-uncommon plant species (*Coprosma rubra*) and that the forest patches provide important seasonal food sources for birds such as kereru and bellbird. The patches of trees have high amenity value.

|   |  |                              |  |
|---|--|------------------------------|--|
| <b>Area Name:</b>                         | <b>Property:</b> Ingrid Investments (B&I Bolt) |                              |  |
| <b>Map ref. (NZTM):</b> 1448180E-5121000N | <b>Nearest Locality:</b> Te Moana              |                              |  |
| <b>Ecological District:</b> Orari         | <b>Area Size (ha):</b> 10.83                   | <b>Altitude (m):</b> 250-350 |  |
| <b>Surveyors:</b> Mike Harding            | <b>Survey Time:</b> 2 hours                    | <b>Survey Date:</b> 16-07-14 |  |

### General Description:

This SNA lies on moderately-steep southeast-facing slopes of a small valley at the northwest edge of the property. The forest in this area is part of a larger patch that extends onto the adjacent property (Geraldine Forest).

### Plant Communities:

The main plant community present is regenerating podocarp-hardwood forest, with kanuka forest and scrub at the forest margins, as described below. Naturalized (exotic) species are indicated with an asterisk\*.

The canopy of most parts of the forest is dominated by mahoe. Other canopy species are mapou, broadleaf, marbleleaf, fuchsia, wineberry, lemonwood, pohuehue and bush lawyer. Less commonly present are lancewood and young kahikatea and totara trees. Species commonly present in the forest understorey are *Coprosma rhamnoides* and *Coprosma rotundifolia*. Other species are pate, *Coprosma crassifolia*, *Coprosma propinqua*, turepo, poataniwha, horopito, rohutu, lancewood, marbleleaf, wineberry, *Clematis marata*, supplejack, kahikatea saplings and, on tree trunks, hound's tongue fern and hanging spleenwort.

Ground-cover species are hen and chickens fern, *Asplenium bookerianum*, prickly shield fern, common shield fern, button fern, hound's tongue fern, *Blechnum fluviatile*, *Blechnum chambersii*, *Leptopteris hymenophylloides*, bidibid, hookgrass, nettle, bush lily, *Libertia ixiooides*, *Carex forsteri* and seedlings of mahoe, marbleleaf, pate, five-finger, broadleaf, mapou, lemonwood, rohutu, lancewood, native jasmine and *Coprosma* species.



SNA 53c

Tall kanuka is present at the forest margin, notably across the stream on the lower northwest-facing slopes. Other species present at the forest margin and in forest openings are manuka, kowhai, cabbage tree, *Coprosma rotundifolia*, *Coprosma propinqua*, *Coprosma crassifolia*, *Coprosma dumosa*, mistletoe (on *Coprosma*



*propinqua*), toatoa, blackberry\*, *Hypolepis ambigua*, bracken, mountain kiokio, male fern\*, *Blechnum penna-marina*, foxglove\*, velvety nightshade\*, poroporo, tutu, Himalayan honeysuckle\*, gorse\* and bush lawyer.

#### **Birds/Fauna Observed:**

Native birds observed during this survey were bellbird, fantail, rifleman, brown creeper, grey warbler, silvereye and kereru. Also likely to be present are tomtit, shining cuckoo and karearea (NZ falcon).

#### **Notable Flora, Fauna and Habitats:**

Important features of this area are the extent of the area of forest, the presence of podocarp (kahikatea and totara) trees, the habitat the forest provides for birds and the presence of one locally uncommon plant species (rohutu).

#### **Notable Plant and Animal Pests:**

Himalayan honeysuckle, gorse and blackberry are the most important plant pests present. However, these species are mostly confined to the forest margins and do not pose a significant threat to the intact forest. Animal pests were not surveyed, though possum and feral pig sign was observed.

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

This area of forest is quite well buffered by its location on steeper slopes and by the adjacent forest on upper slopes. It is not fenced though grazing animal pressure is low.

#### **Condition and Management Issues:**

The main management issue is protection of the lower forest boundary (along the stream) from damage (mainly trampling) by cattle. Continued control of wild animals (notably possums and pigs) will assist forest regeneration.

#### **Property Owner Comment:**

Mr Bolt advises that he intends to fence the lower (stream) boundary of this area.

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#### **ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:**

| <b>Primary Criteria</b>          | <b>Rank</b> | <b>Notes</b>  |
|----------------------------------|-------------|---|
| Representativeness               | M/H         | A good example of young (regenerating) podocarp-hardwood forest typical of that remaining in the ecological district. |
| Rarity                           | M           | Supports one locally uncommon plant species. Provides habitat for an 'at risk' (declining) bird species (rifleman).   |
| Diversity and pattern            | M           | Plant species diversity is moderate (56 indigenous vascular species).   |
| Distinctiveness/special features | M           | Young kahikatea trees are common in the forest.   |
| <b>Other Criteria</b>            |             |   |
| Size/shape                       | M/H         | A relatively large area that is relatively well buffered.   |
| Connectivity                     | M/H         | Adjoins other indigenous forest along most of its north boundary.   |
| Long-term Sustainability         | M/H         | Some animal pest control may be required to maintain ecological values in the long term.                              |

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

This area has been deliberately set aside from development by the landowner. Grazing pressure is low and wild animals have been controlled. It has only limited potential for farm development.

#### **Discussion:**

This area meets the District Plan criteria for a Significant Natural Area. Important features of the area are the extent of the area of forest, the presence of podocarp (kahikatea and totara) trees, the habitat the forest provides for birds and the presence of one locally uncommon plant species (rohutu).

**Area Name:**

Map ref. (NZTM): 1448185E-5120520N

Ecological District: Orari

Surveyors: Mike Harding

**Property:** Ingrid Investments (B&I Bolt)**Nearest Locality:** Te Moana**Area Size (ha):** 16.07**Altitude (m):** 260-400**Survey Time:** 2½ hours**Survey Date:** 16-07-14**General Description:**

This SNA lies on moderately-steep slopes on the sides of a small valley at the southwest part of the property. It extends northeast along the valley side on shady southeast-facing slopes. It is part of a larger area of forest, the remainder of which lies within Geraldine Forest (Blakely Pacific).

**Plant Communities:**

Two main plant communities are present: podocarp-hardwood forest and tall kanuka forest. These plant communities are described below. Naturalized (exotic) species are indicated with an asterisk\*.

Most parts of the forest support a dense hardwood canopy with emergent old podocarp trees. On upper slopes and at the forest edges, tall kanuka trees dominate the canopy. Mahoe is the dominant hardwood tree over most parts of the forest. Other canopy species are kowhai, broadleaf, marbleleaf, lemonwood, mapou, five-finger, wineberry, fuchsia, pohuehue, bush lawyer, native jasmine, clematis and narrow-leaved lacebark and pokaka at the lower forest margin. Less commonly present are cabbage tree, lancewood and old man's beard\* (one clump seen from a distance). Large trees of kahikatea, matai and totara tower over this hardwood canopy, especially on lower slopes.



The forest understorey is dominated by *Coprosma rotundifolia* and mahoe. Other understorey species are mapou, *Coprosma rhamnoides*, *Coprosma crassifolia*, *Coprosma rubra*, *Coprosma propinqua*, pate, white climbing rata, horopito, marbleleaf, wineberry, lemonwood, matipo, narrow-leaved lacebark, turepo, poataniwha, rohutu, supplejack, bush lawyer, koromiko, Himalayan honeysuckle\*, *Clematis marata* and saplings of kahikatea,

totara and matai. Less commonly present are wheki-ponga and silver fern.

Important ground-cover species are prickly shield fern, hen and chickens fern and *Lastreopsis glabella*. Other species present are *Blechnum fluviatile*, *Blechnum chambersii*, *Hypolepis ambigua*, common shield fern, button fern, *Asplenium hookerianum*, necklace fern, *Leptopteris hymenophylloides*, hound's tongue fern, hookgrass, *Carex forsteri*, male fern\*, velvety nightshade\*, cardamine, nettle and seedlings of mahoe, mapou, pate, five-finger, totara, kahikatea, supplejack and *Coprosma* species. The uncommon native herb, *Australina pusilla*, is present on the stream terrace and lower slopes.

Additional species present on the forest margin are manuka, *Coprosma dumosa*, *Coprosma rigida*, *Hypolepis rufobarbata*, mountain kiokio, hard fern, bracken, bidibid, pennywort, hairy pennywort, native bindweed, *Clematis foetida*, lawyer, blackberry\*, foxglove\* and mistletoe (on *Coprosma propinqua*). One plant of Spanish heath\* was observed at the forest margin near the stream.

### **Birds/Fauna Observed:**

Native birds observed during this brief survey were bellbird, grey warbler, kereru, fantail, tomtit, rifleman, brown creeper and karearea/NZ falcon (overhead). Other species likely to be present are silvereye and shining cuckoo.

### **Notable Flora, Fauna and Habitats:**

Important features of this area are the: extent of the area of forest; presence of large old podocarp (kahikatea, matai and totara) trees; the diversity of plant species (70 indigenous vascular plants species); habitat the forest provides for birds; and the presence of several locally uncommon plant species (*Australina pusilla*, *Coprosma rubra*, silver fern, *Hypolepis rufobarbata* and rohutu).

### **Notable Plant and Animal Pests:**

The forest is relatively free of naturalized plants. One clump of old man's beard was observed from a distance and one bush of Spanish heath at the forest margin. Himalayan honeysuckle and male fern are present in the forest, but do not pose a significant threat. Animal pests were not surveyed.

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

This area of forest is buffered by its location on steeper slopes. It extends at its western boundary onto the adjoining property (Geraldine Forest). A new two-wire electric fence prevents stock access along its upper (northern) margin and the steepness of the slope discourages stock access at the lower margin.

### **Condition and Management Issues:**

Most parts of the forest are in good condition. It has a healthy understorey with good regeneration of canopy species, indicating very low grazing/browsing pressure. Important management issues are protection of valley-floor (streamside) forest from grazing, removal of invasive weeds (old man's beard and Spanish heath) and continued control of wild animals (notably possums and pigs).

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### **ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:**

| <b>Primary Criteria</b>          | <b>Rank</b> | <b>Notes</b>   |
|----------------------------------|-------------|--|
| Representativeness               | H           | A good example of indigenous forest representative of this part of the ecological district, with old-growth forest and large old trees.  |
| Rarity                           | M/H         | Supports good populations of five locally uncommon plant species. Provides habitat for an 'at risk' (declining) bird species (rifleman). |
| Diversity and pattern            | M/H         | High plant species diversity (70 indigenous vascular plant species).   |
| Distinctiveness/special features | M           | The large old podocarp trees are a special feature.  |
| <b>Other Criteria</b>            |             |  |
| Size/shape                       | M/H         | A relatively large area of forest, well buffered by its location.  |
| Connectivity                     | M/H         | Adjoins other areas of indigenous forest.  |
| Long-term Sustainability         | M/H         | Some plant and animal pest control will probably be necessary to protect ecological values in the long term.                             |

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

Most parts of this area of forest have been deliberately set aside from development by the landowners. The site mostly occupies steeper slopes that have limited potential for farm development.

### **Discussion:**

This area easily meets the District Plan criteria for a Significant Natural Area. Important features of the area are its size, diversity of plant species, presence of large old podocarp trees, habitat the area provides for forest birds and the presence of locally uncommon plant species.

## 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)     |                                    |
| bidibid .....                 | <i>Acaena</i> sp.                  |
| 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>             |
| bush lily .....               | <i>Astelia fragrans</i>            |
| button fern .....             | <i>Pellaea rotundifolia</i>        |
| cabbage tree/ti rakau .....   | <i>Cordyline australis</i>         |
| cardamine .....               | <i>Cardamine debilis</i>           |
| clematis .....                | <i>Clematis paniculata</i>         |
| common shield fern .....      | <i>Polystichum richardii</i>       |
| five-finger .....             | <i>Pseudopanax arboreus</i>        |
| foxglove* .....               | <i>Digitalis purpurea</i>          |
| fuchsia .....                 | <i>Fuchsia excorticata</i>         |
| gorse* .....                  | <i>Ulex europaeus</i>              |
| hairy pennywort .....         | <i>Hydrocotyle moschata</i>        |
| hanging spleenwort .....      | <i>Asplenium flaccidum</i>         |
| hard fern .....               | <i>Paesia scaberula</i>            |
| hen and chickens fern .....   | <i>Asplenium gracillimum</i>       |
| Himalayan honeysuckle* .....  | <i>Leycesteria formosa</i>         |
| hookgrass .....               | <i>Uncinia</i> sp.                 |
| horopito/pepperwood .....     | <i>Pseudowintera colorata</i>      |
| hound's tongue fern .....     | <i>Microsorium pustulatum</i>      |
| kahikatea/white pine .....    | <i>Dacrycarpus dacrydioides</i>    |
| koromiko .....                | <i>Hebe salicifolia</i>            |
| kowhai .....                  | <i>Sophora microphylla</i>         |
| lancewood .....               | <i>Pseudopanax crassifolius</i>    |
| lemonwood .....               | <i>Pittosporum eugenioides</i>     |
| lowland ribbonwood .....      | <i>Plagianthus regius</i>          |
| mahoe/whiteywood .....        | <i>Melicytus ramiflorus</i>        |
| male fern* .....              | <i>Dryopteris filix-mas</i>        |
| manuka .....                  | <i>Leptospermum scoparium</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>     |
| mistletoe .....               | <i>Ileostylis micranthus</i>       |
| mountain kiokio .....         | <i>Blechnum montanum</i>           |
| narrow-leaved lacebark .....  | <i>Hoheria angustifolia</i>        |
| native bindweed .....         | <i>Calystegia tuguriorum</i>       |
| native jasmine .....          | <i>Parsonsia heterophylla</i>      |
| necklace fern .....           | <i>Asplenium flabellifolium</i>    |
| nettle .....                  | <i>Urtica incisa</i>               |
| old man's beard* .....        | <i>Clematis vitalba</i>            |
| pate .....                    | <i>Schefflera digitata</i>         |
| pennywort .....               | <i>Hydrocotyle novae-zelandiae</i> |
| poataniwha .....              | <i>Melicope simplex</i>            |
| pohuehue .....                | <i>Muehlenbeckia australis</i>     |
| pokaka .....                  | <i>Elaeocarpus hookerianus</i>     |
| poroporo .....                | <i>Solanum laciniatum</i>          |
| prickly shield fern .....     | <i>Polystichum vestitum</i>        |

|                          |                                |
|--------------------------|--------------------------------|
| rohutu .....             | <i>Lophomyrtus obcordata</i>   |
| silver fern/ponga .....  | <i>Cyathea dealbata</i>        |
| Spanish heath* .....     | <i>Erica lusitanica</i>        |
| supplejack .....         | <i>Ripogonum scandens</i>      |
| toatoa.....              | <i>Haloragis erecta</i>        |
| totara .....             | <i>Podocarpus totara</i>       |
| turepo .....             | <i>Streblus heterophyllus</i>  |
| tutu .....               | <i>Coriaria sarmentosa</i>     |
| velvety nightshade*..... | <i>Solanum chenopodioides</i>  |
| walnut*.....             | <i>Juglans regia</i>           |
| wheki-ponga.....         | <i>Dicksonia fibrosa</i>       |
| white climbing rata..... | <i>Metrosideros diffusa</i>    |
| wineberry .....          | <i>Aristotelia serrata</i>     |
| wire moss .....          | <i>Polytrichum juniperinum</i> |
| woolly cloak fern .....  | <i>Cheilanthes distans</i>     |
| woolly moss .....        | <i>Racomitrium</i> sp.         |
| woolly mullein* .....    | <i>Verbascum thapsus</i>       |
| yarrow* .....            | <i>Achillea millefolium</i>    |

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*The locally uncommon forest-floor herb, Australina pusilla, SNA 54c*