

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

**WRIGHT PROPERTY**  
**DALRYMPLE**



Report prepared for Timaru District Council by Mike Harding  
February 2014

# TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

## PROPERTY REPORT

---

### PROPERTY DETAILS:

**Owner:** ..... Robin and Margaret White  
**Valuation References:**.. 24670/001.01  
**Address:** ..... Geraldine Fairlie Highway.  
**Location:** ..... Between the Geraldine Fairlie Highway and Opuha River, south of Skipton Bridge.  
**Ecological District:** ..... Geraldine Ecological District.  
**TDC Land Type:**..... 'Soft Rock Hills and Downs'  
**Land Environments:**..... N3.1a

---

### ECOLOGICAL CONTEXT:

The property covers part of the floodplain of the Opuha River, adjacent terraces and, at the south end of the property, a prominent limestone ridge. The property lies in Geraldine Ecological District.

It is likely that the original vegetation of this area was predominantly podocarp-hardwood forest, dominated by matai, totara, kowhai, broadleaf and other hardwood trees. Shrubland, treeland and tussockland may have occupied steeper slopes and disturbed sites. Limestone bluffs supported specialised flora, and valley floors would have supported areas of wetland vegetation.

Today the original forest cover in this part of Geraldine Ecological District is largely confined to remnants in gullies or on steep slopes associated with limestone scarps. 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.

---

### SIGNIFICANT AREAS ON THE PROPERTY:

Indigenous vegetation on the property comprises hardwood forest, scrub, shrubland, sparsely vegetated rockland associated with limestone bluffs, and areas of sedgeland (wetland) vegetation on valley floors. The property lies near to areas of indigenous forest, shrubland and rockland vegetation on other properties, contributing to the network of fauna habitat in the wider area. This part of the ecological district is a stronghold for a remnant South Canterbury population of long-tailed bat; a threatened (nationally critical) species.

The property was surveyed as part of the District-wide survey of Significant Natural Areas during January 2014. Three areas, comprising approximately ten 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	Central map reference	Aprox. size (ha)	Vegetation/habitat type
320a		J38: 494-755	4.2	Hardwood forest; shrubland; rockland.
320b		J38: 493-754	2.1	Shrubland; rockland, sedgeland.
326a		J38: 496-750	4.4	Scrub; rockland; sedgeland.

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.





1:5,000

Wright  
24670/001.01

Lushman Road

320a

320b

326a





## TIMARU DISTRICT SNA SURVEY

SNA 320a & b

**Area Name:**

**Location (central map reference):** J38: 494-755

**Ecological District:** Geraldine

**Surveyors:** Mike Harding

**Property:** Wright (Dalrymple)

**Nearest Locality:** Beautiful Valley

**Area Size (ha):** 6.3

**Altitude (m):** 220-300

**Survey Time:** 3 hours

**Survey Date:** 28-01-14

### **General Description:**

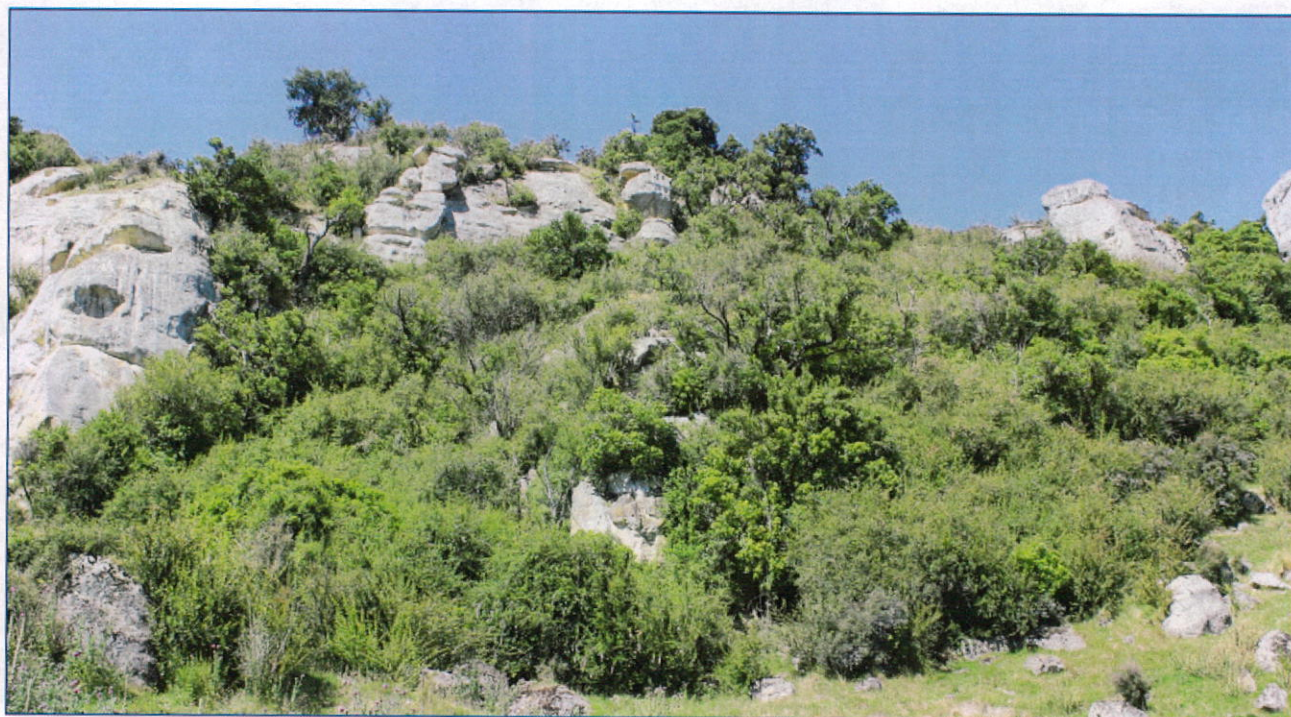
This SNA lies on a steep west-facing limestone scarp, at the southern part of the property. It is bisected by a recently constructed road with a buried pipeline. The two parts of the SNA, above and below the road, are described together here.

### **Plant Communities:**

Four main plant communities are present: hardwood forest; shrubland/scrub; sedgeland (wetland); and the sparsely vegetated rock face (rockland). These plant communities are described below. Naturalized (exotic) species are indicated with an asterisk\*.

#### Hardwood forest:

Small areas of forest are present as patches, mostly at the base of the main limestone scarp. Dominant canopy species are broadleaf, mahoe, five-finger, cabbage tree, barberry\* and pohuehue. Other species less commonly present are kowhai, lemonwood, mountain akeake and elderberry\*. The forest understorey is relatively open, though seedlings of mahoe, broadleaf, five-finger and barberry\* are frequently present.



*Forest and scrub at the central part of SNA 320a*

#### Shrubland/scrub:

Shrubland/scrub is the most widespread community, occupying steeper slopes above and below the main limestone scarp. This low-stature vegetation is dominated by mingimingi. Other important species are matagouri, barberry\*, native broom, porcupine shrub, elderberry\*, native jasmine, scrub pohuehue, pohuehue, leafless lawyer, native bindweed and *Clematis foetida*. Less commonly present are gorse\*, broom\*, sweet brier\*, bittersweet\*, blackberry\* and mistletoe (on mingimingi).



Intervening areas are dominated by pasture grasses\* and, in places, nodding thistle\*, Californian thistle\* or horehound\*. Other species present are silver tussock, blue wheat grass, woolly mullein\*, foxglove\* and hemlock\*.

#### Rockland:

The main limestone scarps support species typical of limestone in South Canterbury, including mountain akeake, koromiko, *Asplenium lyallii*, maidenhair fern, *Blechnum chambersii*, *Epilobium nummularifolium* and sandwort\*. Star lily (*Arthropodium candidum*) was observed in a limestone pocket at one location. Barberry\* is commonly present. Other species present beneath limestone overhangs or close to the bluff are pennywort, *Dichondra repens*, toatoa, hemlock\*, burdock\*, hedge mustard\*, black nightshade\* and thistles\*.

#### Sedgeland:

Sedgeland is present at the base of the bluff alongside a small stream. It is dominated by *Carex geminata*. Other species present are toetoe, *Carex secta*, soft rush\*, cabbage tree, crack willow\* and mingimingi.



*Sedgeland (centre) at the base of the bluff within SNA 320b*

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

Native birds observed during this brief survey were bellbird, harrier, welcome swallow, silvereye and grey warbler.

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

Important features of this area are the presence of naturally uncommon ecosystems (limestone bluffs and wetlands) supporting indigenous vegetation, a locally uncommon plant species (star lily), and the habitat the area provides for birds.

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

Barberry is the most important plant pest present. It is widespread at the site, except for the wetland, and in places dominant. Other important plant pests are elderberry, gorse, broom and a number of pasture weeds, notably nodding thistle, Californian thistle, horehound, burdock, barley grass, woolly mullein and hemlock. Animal pests were not surveyed, though possums will be present.

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

The boundaries of the two parts of this SNA are drawn to include the areas of exposed limestone and adjacent areas that support indigenous vegetation (shrubland/scrub and sedgeland). The area lies close



to another area of exposed limestone and indigenous vegetation at the southern boundary of the property (SNA 326). It is not fenced, though grazing pressure appears relatively light and parts of the area are buffered by the steepness of the slope.

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

The most important management issue is control or containment of barberry and other woody weeds. The presence of barberry and elderberry, with their attractive bird-dispersed fruits, poses a continued threat to this and other nearby sites. However, complete removal of barberry would be very difficult. Herbicide spray has affected indigenous vegetation at parts of the site. The limestone bluffs were once popular with rock-climbers, and a number of climbing routes are bolted. Maori rock art is present.

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

The landowners are sympathetic to protection of the site. They have controlled barberry and other weeds, and encourage possum control. The landowners wish to be able to continue aerial spraying of pasture weeds.

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

<b>Primary Criteria</b>	<b>Rank</b>	<b>Notes</b>
Representativeness	<b>M</b>	A good example of indigenous vegetation typical of that remaining in this part of the ecological district and containing a good range of representative species.
Rarity	<b>M/H</b>	Lies within an acutely-threatened land environment (N3.1a); contains naturally uncommon ecosystems (limestone bluffs and wetlands) that support indigenous vegetation. May provide habitat for a threatened (nationally critical) species (long-tailed bat).
Diversity and pattern	<b>M/H</b>	Supports four distinct plant community types, though species diversity is relatively low.
Distinctiveness/special features	<b>M</b>	The limestone bluffs are large and spectacular. Maori rock art is present.
<b>Other Criteria</b>		
Size/shape	<b>M</b>	A moderate-sized area, though long and narrow. Core areas on the limestone bluffs are relatively well buffered.
Connectivity	<b>M</b>	Lies very close to another area of indigenous vegetation on limestone (SNA 326).
Long-term Sustainability	<b>M</b>	The site is threatened by woody weeds.

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

This SNA occupies steep rocky slopes and an associated valley-floor wetland. These areas have been set aside from development by the landowners and informally protected. Steeper parts of the site have very limited potential for farm development, though the valley-floor wetland is vulnerable.

#### **Discussion:**

This area meets the District Plan criteria for a Significant Natural Area. Important features of the area are the presence of naturally uncommon ecosystems (limestone bluffs and wetlands) supporting indigenous vegetation, a locally uncommon plant species (star lily), and the habitat the area provides for birds.



## TIMARU DISTRICT SNA SURVEY

SNA 326a

Area Name:

Location (central map reference): J38: 496-750

Ecological District: Geraldine

Surveyors: Mike Harding

Property: Wright (Dalrymple)

Nearest Locality: Beautiful Valley

Area Size (ha): 4.4

Altitude (m): 220-280

Survey Time: 3 hours

Survey Date: 28-01-14

### General Description:

This SNA lies in a small valley at the southern corner of the property. The site extends onto the adjacent property and is very close to SNA 320.

### Plant Communities:

Three main plant communities are present: scrub; sedgeland and rockland. These plant communities are described separately below. Naturalized (exotic) species are indicated with an asterisk\*.

#### Scrub:

Scrub is present above and below the main limestone bluff at the site. It is dominated by mingimingi and matagouri, and has emergent trees of broadleaf, cabbage tree, mahoe and elderberry\*, especially adjacent to the bluff. Other species present are native broom, porcupine shrub, gorse\*, broom\*, barberry\*, Himalayan honeysuckle\*, sweet brier\*, bittersweet\*, blackberry\*, hemlock\*, burdock\*, hedge mustard\*, horehound\*, black nightshade\*, silver tussock, bracken, prickly shield fern, male fern\*, Californian thistle\*, scrub pohuehue, pohuehue, native jasmine, leafless lawyer, lawyer, native bindweed and, at the lower (southwest) end of the site, a small patch of old man's beard\*. Two large bushes of the locally-uncommon tree daisy (*Olearia bullata*) are present at the northern edge of the site.



SNA 326; limestone bluffs at left are on the adjacent property.

#### Rockland:

The limestone bluffs are sparsely-vegetated. Species present on ledges and in cracks are koromiko, mountain akeake, barberry\* and kowhai. Other species on or adjacent to the limestone are tree nettle, *Epilobium nummularifolium*, pennywort, *Dichondra repens*, *Lagenifera petiolata*, buttercup, *Blechnum chambersii*, *Blechnum fluviale*, *Blechnum penna-marina*, maidenhair fern, *Asplenium hyalii* and the at-risk (naturally uncommon) herb *Einadia allanii*.



### Sedgeland:

The sloping valley floor adjacent to the limestone bluff supports a relatively extensive wetland. It is mostly dominated by *Carex geminata*. Other species present are *Carex secta*, soft rush\*, *Juncus edgariae*, bog rush, jointed rush\*, mingimingi, cabbage tree, fuchsia, Californian thistle\*, Yorkshire fog\* and cocksfoot. Flax is present at the man-made pond at the lower end of the site.



*SNA 326a; sedgeland in foreground.*

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

Native birds observed during this brief survey were bellbird, harrier, silvereye, grey warbler and welcome swallow.

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

Important features of this area are the presence of naturally uncommon ecosystems (limestone bluffs and wetlands) supporting indigenous vegetation, an at-risk (naturally uncommon) plant species (*Einadia allanii*), locally uncommon plant species (tree nettle and *Olearia bullata*), and the habitat the area provides for birds.

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

Barberry, elderberry, broom, gorse and old man's beard are the most important plant pests present. Of these, elderberry is the most common. Other plant pests, such as hemlock and thistles, do not pose a significant threat to the indigenous vegetation. Animal pests were not surveyed though possums will be present.

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

The boundary of this SNA is drawn to include the areas of exposed limestone and adjacent areas of scrub and sedgeland. The plant communities extend onto the adjacent property. It is fenced upslope of the limestone scarp and at the property boundary. The SNA lies close to another area of exposed limestone and indigenous vegetation on the property (SNA 320).



**Condition and Management Issues:**

The sedgeland (wetland) plant community and steeper parts of the limestone bluff are in relatively good condition, in part because of low stock pressure. The site would be readily damaged if cattle were grazed. The woody weed infestations at this site are small enough for control to be practical, though there will be a continued risk of re-infestation from adjacent areas, notably the flood protection plantings along the Opuha River. Maori rock art is present.

**Property Owner Comment:**

The landowners are sympathetic to protection of the site. This block is not grazed hard, partly because sheep do not favour sedgeland vegetation.

**ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:**

Primary Criteria	Rank	Notes
Representativeness	M	A good example of indigenous vegetation typical of that remaining in this part of the ecological district and containing a good range of representative species.
Rarity	M/H	Lies within an acutely-threatened land environment (N3.1a); contains naturally uncommon ecosystems (limestone bluffs and wetlands) that support indigenous vegetation; supports an at-risk plant species ( <i>Einadia allanii</i> ). May provide habitat for a threatened (nationally critical) species (long-tailed bat).
Diversity and pattern	M/H	Supports three distinct plant community types; plant species diversity is moderate.
Distinctiveness/special features	M	The wetland is large and in particularly good condition. Maori rock art is present.
<b>Other Criteria</b>		
Size/shape	M	A moderate-sized area, that is well buffered by its location and fencing.
Connectivity	M	Lies very close to another area of indigenous vegetation on limestone (SNA 320).
Long-term Sustainability	M	Continued control of plant and animal pests will probably be necessary to maintain ecological values.

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

This SNA occupies rocky slopes and an associated valley-floor wetland. These areas have been set aside from development by the landowners and informally protected. The site 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 presence of naturally uncommon ecosystems (limestone bluffs and wetlands) supporting indigenous vegetation, an at-risk (naturally uncommon) plant species (*Einadia allanii*), locally uncommon plant species (tree nettle and *Olearia bullata*), and the habitat the area provides for birds.



## 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)	
barberry* .....	<i>Berberis glaucocarpa</i>
bittersweet* .....	<i>Solanum dulcamara</i>
blackberry* .....	<i>Rubus fruticosus</i>
black nightshade* .....	<i>Solanum nigrum</i>
blue wheat grass .....	<i>Elymus solandri</i>
bog rush .....	<i>Schoenus pauciflorus</i>
bracken .....	<i>Pteridium esculentum</i>
broadleaf .....	<i>Griselinia littoralis</i>
broom* .....	<i>Cytisus scoparius</i>
burdock* .....	<i>Arctium minus</i>
buttercup .....	<i>Ranunculus</i> sp.
cabbage tree/ti rakau .....	<i>Cordyline australis</i>
Californian thistle* .....	<i>Cirsium arvense</i>
cocksfoot* .....	<i>Dactylis glomerata</i>
crack willow* .....	<i>Salix fragilis</i>
elderberry* .....	<i>Sambucus nigra</i>
five-finger .....	<i>Pseudopanax arboreus</i>
flax .....	<i>Phormium tenax</i>
foxglove* .....	<i>Digitalis purpurea</i>
fuchsia .....	<i>Fuchsia excorticata</i>
gorse* .....	<i>Ulex europaeus</i>
hedge mustard* .....	<i>Sisymbrium officinale</i>
hemlock* .....	<i>Conium maculatum</i>
Himalayan honeysuckle* .....	<i>Leycesteria formosa</i>
horehound* .....	<i>Marrubium vulgare</i>
jointed rush* .....	<i>Juncus articulatus</i>
koromiko .....	<i>Hebe salicifolia</i>
kowhai .....	<i>Sophora microphylla</i>
lawyer .....	<i>Rubus schmidelioides</i>
leafless lawyer .....	<i>Rubus squarrosus</i>
lemonwood .....	<i>Pittosporum eugenioides</i>
mahoe/whiteywood .....	<i>Melicope ramiflora</i>
maidenhair fern .....	<i>Adiantum cunninghamii</i>
male fern* .....	<i>Dryopteris filix-mas</i>
matagouri .....	<i>Discaria toumatou</i>
matai/black pine .....	<i>Prumnopitys taxifolia</i>
mingimingi .....	<i>Coprosma propinqua</i>
mistletoe .....	<i>Ileostylis micranthus</i>
mountain akeake .....	<i>Olearia avicenniifolia</i>
native bindweed .....	<i>Calystegia tuguriorum</i>
native broom .....	<i>Carmichaelia</i> aff. <i>australis</i>
native jasmine .....	<i>Parsonsia</i> sp.
nodding thistle* .....	<i>Carduus nutans</i>
old man's beard* .....	<i>Clematis vitalba</i>



pennywort .....	<i>Hydrocotyle</i> sp.
pohuehue.....	<i>Muehlenbeckia australis</i>
porcupine shrub .....	<i>Melicytus alpinus</i>
prickly shield fern.....	<i>Polystichum vestitum</i>
sandwort* .....	<i>Arenaria serpyllifolia</i>
scrub pohuehue.....	<i>Muehlenbeckia complexa</i>
silver tussock .....	<i>Poa cita</i>
soft rush* .....	<i>Juncus effusus</i>
star lily.....	<i>Arthropodium candidum</i>
sweet brier* .....	<i>Rosa rubiginosa</i>
toatoa .....	<i>Haloragis erecta</i>
toetoe .....	<i>Cortaderia richardii</i>
totara .....	<i>Podocarpus totara</i>
tree nettle.....	<i>Urtica ferox</i>
woolly mullein* .....	<i>Verbascum thapsus</i>
Yorkshire fog* .....	<i>Holcus lanatus</i>