

TIMARU DISTRICT
SIGNIFICANT NATURAL AREAS
SURVEY

BLAKEMORE/ECAN PROPERTY
TOTARA CREEK/TENGAWAI



Report prepared for Timaru District Council by Mike Harding
May 2011

TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

PROPERTY REPORT

PROPERTY DETAILS:

Owner: David Blakemore/Ecan (?)
Valuation References: 24810/144.00
Address: Totara Valley Road
Location: On low terraces at the confluence of Totara Creek and Tengawai River, near Pleasant Point.
Ecological District: Geraldine Ecological District.
TDC Land Type: 'Plains'.
Land Environment: N2 (well-drained plains).

ECOLOGICAL CONTEXT:

The property comprises freehold land owned by David Blakemore and land leased by David Blakemore from Ecan (?). It covers recent low-lying terraces of Totara Creek and Tengawai River, near Pleasant Point, in Geraldine Ecological District.

It is likely that the original vegetation of this area was podocarp-hardwood forest, dominated by matai, kahikatea, totara and lowland ribbonwood, with areas of wetland and riverbed vegetation.

Today the original forest cover of Geraldine Ecological District is substantially reduced, especially at low-altitude alluvial sites. Populations of indigenous fauna, such as the long-tailed bats that are present at these SNAs, are also substantially reduced.

SIGNIFICANT AREAS ON THE PROPERTY:

Indigenous vegetation on the property comprises forest dominated by crack willow and poplar trees, scrub dominated by gorse and broom and open pasture. The key attribute of these SNAs is the presence of important roost sites for a nationally-endangered species, long-tailed bat.

The property was surveyed as part of the District-wide survey of Significant Natural Areas during March 2011. Two areas, comprising approximately 40 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 grid reference	Aprox. size (ha)	Vegetation/habitat type
729a	Lower Tengawai River terrace	J38: 585-605	29	Bat roost sites in willow trees
729b	Totara Creek	J38: 578-609	11	Bat roost sites in willow trees

These SNAs are illustrated on the attached aerial photograph and described in greater detail on the SNA Form 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 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, spraying with herbicides and over-planting. SNAs encompass most, but not necessarily all, areas of vegetation and habitat which meet the Interim Definitions.

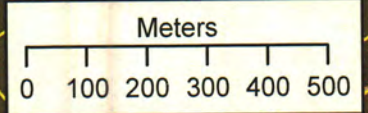
To assist with the protection and management of any SNA, landowners can apply to Council for financial assistance. Any questions regarding the protection, management and use of SNAs should be directed to the District Planner.



Blakemore Property
24810/144.00



1:12,500



TIMARU DISTRICT SNA SURVEY

SNAs 729a & 729b

Area Name: Totara Creek; lower Tengawai

Ecological District: Geraldine

SNA 729a: Location (central map ref.): J38: 585-605

SNA 729b: Location (central map ref.): J38: 578-609

Surveyors: Mike Harding and Jono More

Property: David Blakemore/Ecan?

Nearest Locality: Pleasant Point

Area Size (ha): 29.31 **Altitude (m):** 70-75

Area Size (ha): 11.08 **Altitude (m):** 75-85

Survey Time: 3 hours **Survey Date:** 30-03-11

General Description:

These Significant Natural Areas (SNAs) lie on flats and terraces of lower Totara Creek at and above its confluence with Tengawai River, near Pleasant Point. The two SNAs encompass stands of larger trees that provide important roost sites for long-tailed bat (a nationally endangered species).

Plant Communities:

The main plant communities present are willow and poplar forest/treeland; gorse/broom scrub and pasture. These plant communities are described for each SNA below. Naturalized (exotic) species are indicated with an asterisk*.

Tengawai River Terrace (SNA 729a):

This SNA comprises a grassed terrace between lower Totara Creek and Tengawai River. The flats associated with Totara Creek, at the northern part of the SNA, support scattered patches of large crack willow* trees, patches of scrub dominated by gorse* and broom* and the open channel of Totara Creek. The flats associated with Tengawai River, at the southern part of the SNA, support stands of tall trees (mostly poplar*) planted as part of flood protection works. On the terrace between these two areas are a patch of tall poplar* trees and another patch of old crack willow* trees. A stand of white poplar* trees and scattered Lombardy poplar* trees are present at the western part of the SNA.



Within this area are two known roost sites of long-tailed bat, supporting approximately 60 individual bats (Jono More, *pers. comm.*). All of the larger trees in this area provide actual or potential habitat for bats.

Vegetation between the stands of trees is mostly dominated by pasture comprised entirely of exotic plant species. Species present on or associated with the bed of Totara Creek are blackberry*, hawksbeard*, yarrow*, dandelion*, narrow-leaved plantain* and sheep's sorrel*. Watercress* is present in the creek.

Totara Creek Terrace (SNA 729b):

This SNA comprises the riverbed and riparian terraces of Totara Creek upstream from (northwest of) the Totara Valley Road bridge. The river terraces support rows of (mostly planted) crack willow* trees. Other species present within the willows are elderberry*, hemlock*, cocksfoot*, wall lettuce*, chickweed* and, at one location, ivy*. There is one known bat roost site within this SNA, in a crack willow tree at the western (upstream) part of the SNA.

Areas of stable riverbed and lower terrace support a mosaic of scrub and grassland. The scrub is dominated by gorse* and broom*. Other species present are blackberry* and occasional emergent wild plum* trees.

The grassland is dominated by cocksfoot*, browntop* and yarrow*. Other species are dandelion*, narrow-leaved plantain*, hemlock*, couch*, woolly mullein*, nodding thistle* and storks-bill*. Additional species present at stony sites are a native grass (*Rytidosperma* sp.), white clover*, catsear*, creeping pohuehue, sand spurrey*, sheep's sorrel*, haresfoot trefoil* and moss. Additional species present at damper sites are prairie grass*, broad-leaved dock*, creeping buttercup*, Californian thistle*, creeping bent*, tall oat grass*, timothy* and young crack willow* bushes. Watercress* and willow weed* are present in the stream channel.



Totara Creek

Birds/Fauna Observed:

Native birds observed during this brief survey were pukeko, paradise shelduck and grey warbler. Totara Creek supports good numbers of eels (Jono More, *pers.comm.*) and a healthy population of water snails (*Potamogeton* sp.).

Notable Flora, Fauna and Habitats:

The most important feature of these areas is the habitat that the taller older trees provide for long-tailed bat. The South Canterbury population of this nationally-endangered species has declined dramatically in recent years. The three bat roost sites within these SNAs support the largest known groups of bats remaining in the

District, comprising approximately 100 individuals (Jono More, *pers.comm.*). The SNAs, and especially Totara Creek (SNA 729b), also provide good stream and riparian habitat for water birds.

Notable Plant and Animal Pests:

These SNAs are dominated by naturalized plants. However, the primary value of these SNAs is the habitat that exotic crack willow trees (and probably other trees), provide for long-tailed bat. Retention of these trees is critical. Gorse and broom are probably the most important plant pests present, though these species probably do not have a significant effect on the bat population. Animal pests were not surveyed, though a cat was observed alongside Totara Creek.

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

The boundaries of this area have been drawn to include the patches of larger trees. These boundaries are mostly fenced. Alternatively, the boundaries could be drawn to encompass the individual patches of trees. However, the effect would be similar, as the protection required is retention of the larger trees and does not affect use of the pasture between the trees.

Condition and Management Issues:

Indigenous vegetation is largely absent from the site. Indigenous plant species are limited to a handful of species occupying disturbed or stony sites. The most important management issues are protection of the larger trees which provide roost sites for long-tailed bats, and control of introduced predators, notably stoats, rats, cats and possums.

ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:

Primary Criteria	Rank	Notes
Representativeness	L	Indigenous vegetation has been almost completely displaced from the site.
Rarity	H	Provides critical habitat for the South Canterbury population of long-tailed bat, a nationally-endangered species.
Diversity and pattern	L/M	Plant species diversity is low, though the area provides a mosaic of forest, scrub and stream habitats.
Distinctiveness/special features	M	The sites buffer and help protect in-stream habitats, notably along Totara Creek.
Other Criteria		
Size/shape	M/H	Relatively large sites for this ecological district, though not well buffered.
Connectivity	M	The roost sites within these SNAs are within bat-flying distance of other roost sites in the area.
Long-term Sustainability	L/M	Retention of the older trees (especially crack willow) and control of introduced predators will be necessary to maintain ecological values.

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

Some of the larger trees at these SNAs were planted for flood protection. Other large trees here do not unduly restrict or compromise continued use of the area for grazing.

Discussion:

These areas meet the District Plan criteria for Significant Natural Areas. The most important feature of these areas is the habitat (especially roost sites) they provide for long-tailed bat (a nationally-endangered 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)	
blackberry*	<i>Rubus fruticosus</i>
broad-leaved dock*	<i>Rumex obtusifolius</i>
broom*	<i>Cytisus scoparius</i>
browntop*	<i>Agrostis capillaris</i>
Californian thistle*	<i>Cirsium arvense</i>
catsear*	<i>Hypochoeris radicata</i>
chickweed*	<i>Stellaria media</i>
cocksfoot*	<i>Dactylis glomerata</i>
couch*	<i>Elytrigia repens</i>
crack willow*	<i>Salix fragilis</i>
creeping bent*	<i>Agrostis stolonifera</i>
creeping buttercup*	<i>Ranunculus repens</i>
creeping pohuehue	<i>Muehlenbeckia axillaris</i>
dandelion*	<i>Taraxacum officinale</i>
elderberry*	<i>Sambucus nigra</i>
gorse*	<i>Ulex europaeus</i>
haresfoot trefoil*	<i>Trifolium arvense</i>
hawksbeard*	<i>Crepis capillaris</i>
hemlock*	<i>Conium maculatum</i>
ivy*	<i>Hedera helix</i>
kahikatea/white pine	<i>Dacrycarpus dacrydioides</i>
Lombardy poplar*	<i>Populus nigra</i>
lowland ribbonwood	<i>Plagianthus regius</i>
matai/black pine	<i>Prumnopitys taxifolia</i>
mouse-ear hawkweed*	<i>Hieracium pilosella</i>
narrow-leaved plantain*	<i>Plantago lanceolata</i>
nodding thistle*	<i>Carduus nutans</i>
plum*	<i>Prunus</i> sp.
poplar*	<i>Populus</i> sp.
prairie grass*	<i>Bromus willdenowii</i>
sand spurrey*	<i>Spergularia rubra</i>
sheep's sorrel*	<i>Rumex acetosella</i>
storksbill*	<i>Erodium cicutarium</i>
tall oat grass*	<i>Arrhenatherum elatius</i>
timothy*	<i>Phleum pratense</i>
totara	<i>Podocarpus totara</i>
wall lettuce*	<i>Mycelis muralis</i>
watercress*	<i>Rorippa microphylla</i>
white clover*	<i>Trifolium repens</i>
white poplar*	<i>Populus alba</i>
willow weed*	<i>Persicaria hydropiper</i>
woolly mullein*	<i>Verbascum thapsus</i>
yarrow*	<i>Achillea millefolium</i>