

TIMARU DISTRICT
SIGNIFICANT NATURAL AREAS
SURVEY

KAKAHU FARM
HARGREAVES PROPERTY
Supplementary Report



Report prepared for Timaru District Council by Mike Harding
February 2021

TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

SUPPLEMENTARY PROPERTY REPORT

PROPERTY DETAILS:

Owner: Tom Hargreaves
Valuation References: . 24670-18200A
Address: Winchester-Hanging Rock Road, Kakahu Bush
Property Location:..... On north side of Opihi River, between Hanging Rock and Kakahu
Ecological District: Geraldine
TDC Land Type: Soft Rock Hills and Downs
Land Environment:..... N3.1a

ADDITIONAL SIGNIFICANT AREAS ON THE PROPERTY:

The property was first surveyed in May 2009; 24 areas of significant indigenous vegetation/habitat (SNAs) were identified at that time. This supplementary survey was prompted by a request for funds to assist with fencing of SNA 171a and adjacent indigenous vegetation, to exclude stock.

This supplementary report describes the indigenous vegetation south-west of SNA 171a and assesses most of that vegetation as significant. It is described in this report as a new SNA (860).



SNA 860 (white-hatched area).

TIMARU DISTRICT SNA SURVEY

SNA 860

Area Name:	Property: Kakahu Bush (Tom Hargreaves)		
Ecological District: Geraldine	Nearest Locality: Kakahu		
Map ref.: 1447120E-5111090N	Area Size (ha): 2.34	Altitude (m): 140-160	
Assessor: Mike Harding	Survey Time: 1 hour	Survey Date: 17-02-21	

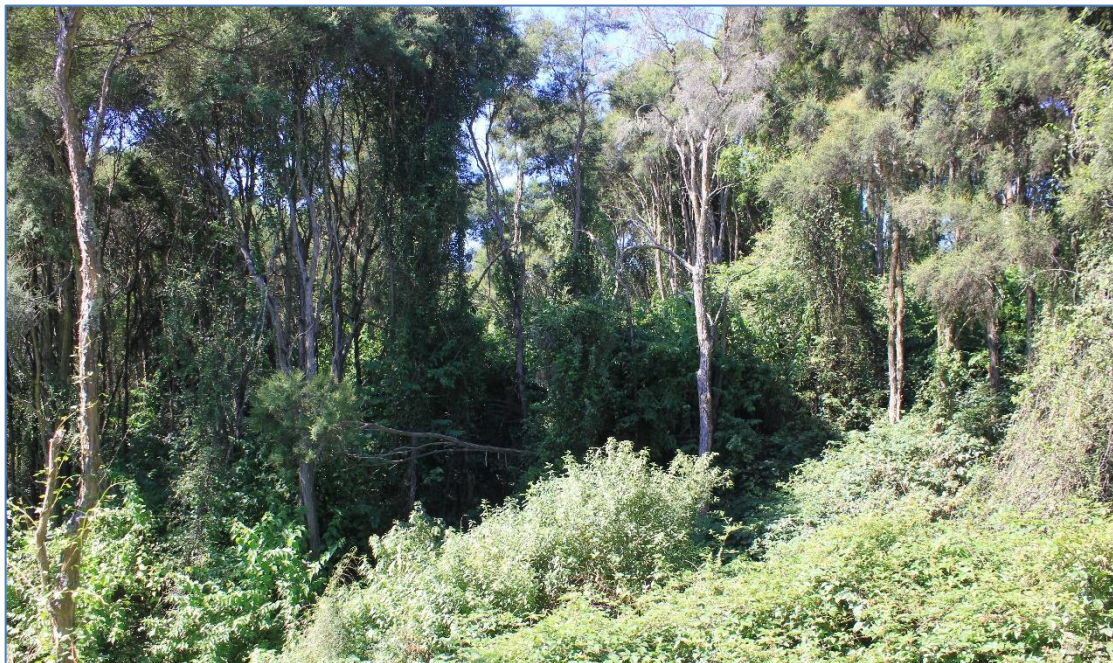
General Description:

SNA 860 is located on the lower slopes of a small valley at the north-west part of the property. It lies alongside a small un-named tributary of Borrell Creek and flows south from SNA 171a to Hall Road. Underlying geology is sedimentary rock (mudstone and sandstone), though the area lies near to prominent outcrops of limestone.

Plant Communities:

The main plant community at this site is kanuka forest (as defined by Atkinson 1985). This plant community is described below. Naturalized species are indicated with an asterisk*. A species list is appended to this report.

The forest canopy is dominated by tall kanuka (*Kunzea ericoides* agg.). Other canopy species are pohuehue (*Muehlenbeckia australis*) and native jasmine (*Parsonsia heterophylla*). Additional canopy species present at the south part of the site are sycamore* (*Acer pseudoplatanus*), Chilean flame creeper* (*Tropaeolum speciosum*) and pine* trees (*Pinus* sp.).



Tall kanuka is the dominant canopy species at SNA 860.

Forest openings and much of the forest understorey are dominated by Himalayan honeysuckle* (*Leycesteria formosa*) and blackberry* (*Rubus fruticosus* agg.). Other understorey species are mingimingi (*Coprosma propinqua*), *Coprosma rigida*, *Coprosma rotundifolia*, fuchsia (*Fuchsia excorticata*), mahoe (*Melicytus ramiflorus*) and saplings of narrow-leaved lacebark (*Hoheria angustifolia*).

The ground-cover at open parts of the forest is mostly grassy. Indigenous plant species present are *Hypolepis ambigua*, necklace fern (*Asplenium flabellifolium*), *Asplenium richardii*, *Asplenium hookerianum*, *Blechnum penna-marina*, common shield fern (*Polystichum neozelandicum*), prickly shield fern (*Polystichum vestitum*), *Dichondra brevifolia* agg., pennywort (*Hydrocotyle novae-zelandiae*) and hairy pennywort (*Hydrocotyle moschata*).

Additional plant species present at the forest margins are lawyer (*Rubus schmidelioides*), *Juncus edgariae*, gorse* (*Ulex europaeus*), hawthorn* (*Crataegus monogyna*), foxglove* (*Digitalis purpurea*), Scotch thistle* (*Cirsium vulgare*) and Californian thistle (*Cirsium arvense*).



Blackberry is dominant at forest openings.

Bird Species:

Native birds observed during this brief survey were bellbird (*Anthornis melanura*), fantail (*Rhipidura fuliginosa*) and harrier (*Circus approximans*).

Notable Flora, Fauna and Habitats:

The site lies in a Level IV Land Environment (N3.1a) within which indigenous vegetation is acutely threatened (depleted to less than 10% of its former extent nationally) (Cieraad *et al*, 2015). Forest at this site lies close to other areas of indigenous forest that collectively provide network of habitat for native birds.

Kanuka is listed as a Threatened (nationally vulnerable) species (de Lange *et al*, 2018). However, this listing results from the threat posed by myrtle rust, and has the qualifiers DP (data poor) and De (taxon that does not fit within the criteria; designated to most appropriate listing). Long-tailed bats (*Chalinolobus tuberculatus* “South Island”) are present in the area, and are listed as a Threatened (nationally critical) species (O’Donnell *et al*, 2012).

Notable features of this SNA are the presence of indigenous vegetation within an ‘acutely threatened’ land environment and within an ecological district where lowland indigenous vegetation is substantially depleted. The SNA provides useful habitat for native birds, and possibly long-tailed bats. The forest helps buffer the stream from the effects of activities on adjacent farmland.

Notable Plant and Animal Pests:

Sycamore, hawthorn, Himalayan honeysuckle and blackberry are the most important plant pests at this SNA. The native climber pohuehue is dominant at some parts of the site. Animal pests were not surveyed, though possum sign was observed.

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

The boundaries of this SNA have been drawn to include the main area of tall kanuka forest that is contiguous with the existing SNA 171a. The southern boundary of the SNA is the location at which kanuka becomes sparser and is replaced by scattered trees of sycamore and radiata pine and more extensive patches of gorse. The site lies close to other areas of indigenous vegetation, notably a large area of kanuka forest at Kakahu and limestone SNAs elsewhere on the property.

Condition and Management

The site is not fenced, though dense blackberry limits the extent to which grazing animals penetrate the forest. Nevertheless, fencing to exclude stock would be beneficial. The main weed threats at the site are from sycamore, hawthorn, Himalayan honeysuckle and blackberry. Of these species, sycamore and hawthorn pose the greatest threat and should be removed. Strategic control of blackberry may assist with the regeneration of native forest species. Control of possums, and any other feral animals, would benefit the site.

ASSESSMENT AGAINST REGIONAL POLICY STATEMENT CRITERIA:

Criteria	Yes/No	Comments
Representativeness	Yes	Indigenous vegetation that is typical/characteristic of the natural diversity of the ecological district.
Rarity/Distinctiveness	Yes	Indigenous vegetation that has been reduced to less than 10% of its former extent in the ecological district and land environment.
Diversity and Pattern	No	Species and habitat diversity is low.
Ecological Context	Yes	Part of a network of forest-bird habitat.

Discussion:

This site meets the Canterbury Regional Policy Statement criteria for a significant natural area. Important values are that it supports indigenous vegetation within an ecological district (and land environment) where indigenous vegetation is substantially depleted. It provides useful habitat for forest birds, and buffers the stream from the effects of activities on adjoining farmland.

Species List: SNA

Species' scientific names are as listed in the Manaaki Whenua/Landcare Research Nga Tipu o Aotearoa New Zealand Plants database.

Indigenous Plant Species

Trees, shrubs, sub-shrubs, lianes (woody plants)

Coprosma propinqua	mingimingi
Coprosma rigida	
Coprosma rotundifolia	
Fuchsia excorticata	fuchsia
Hoheria angustifolia	narrow-leaved lacebark
Kunzea ericoides agg.	kanuka
Melicytus ramiflorus	mahoe/whiteywood
Muehlenbeckia australis	pohuehue
Parsonsia heterophylla	native jasmine
Rubus schmidelioides	lawyer

Ferns and Fern Allies

Asplenium flabellifolium	necklace fern
Asplenium hookerianum	
Asplenium richardii	
Blechnum penna-marina	
Hypolepis ambigua	
Polystichum neozelandicum	common shield fern
Polystichum vestitum	prickly shield fern

Herbaceous (non-woody) plants

Dichondra brevifolia agg.	
Hydrocotyle moschata	hairy pennywort
Hydrocotyle novae-zelandiae	pennywort
Juncus edgariae	
Leptinella sp.	

Naturalised (exotic) Plant Species

Acer pseudoplatanus	sycamore
Cirsium arvense	Californian thistle
Cirsium vulgare	Scotch thistle
Crataegus monogyna	hawthorn
Dactylis glomerata	cocksfoot
Digitalis purpurea	foxglove
Leycesteria formosa	Himalayan honeysuckle
Lotus pedunculatus	lotus
Pinus radiata	radiata pine
Prunella vulgaris	selfheal
Ranunculus repens	creeping buttercup
Rubus fruticosus	blackberry
Tropaeolum speciosum	Chilean flame creeper
Ulex europaeus	gorse

Bird Species

Anthornis melanura	bellbird
Circus approximans	harrier
Rhipidura fuliginosa	fantail

REFERENCES CITED:

Atkinson, I.E.A. 1985. Derivation of mapping units for an ecological survey of Tongariro National Park, North Island, New Zealand. *NZ Journal of Botany* 23: 361-378.

Cieraad, E.; Walker, S.; Price, R.; Barringer, J. 2015. An updated assessment of indigenous cover remaining and legal protection in New Zealand's land environments. *NZ Journal of Ecology* 39: 309-315.

de Lange, P.J; Rolfe, J.R; Barkla, J.W; Courtney, S.P; Champion, P.D; Perrie, L.R.; Beadel, S.M.; Ford, K.A.; Breitweiser, I.; Schönberger, I.; Hindmarsh-Walls, R.; Heenan, P.B; Ladley, K. 2018. *Conservation status of New Zealand indigenous vascular plants, 2017*. Department of Conservation, Wellington, New Zealand.

O'Donnell, C.F.J.; Christie, J.E.; Lloyd, B.; Parsons, S.; Hitchmough, R.A. 2013. Conservation status of New Zealand bats 2012. *New Zealand Threat Classification Series 6*. Department of Conservation, Wellington.



Pines dominate the area south of SNA 860.