



Crown Pastoral Land Tenure Review

Lease name :Scotsburn

Lease number :PT 080

Conservation resources report

As part of the process of tenure review, advice on significant inherent values within the pastoral lease is provided by Department of Conservation officials in the form of a conservation resources report. This report is the result of outdoor survey and inspection. It is a key piece of information for the development of a preliminary consultation document.

The report attached is released under the Official Information Act 1982.

Copied October 2002

**DEPARTMENT OF CONSERVATION RESOURCE REPORT
KNIGHT FRANK LTD ON TENURE REVIEW OF SCOTSBURN
PASTORAL LEASE.**

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Part 1: Introduction

Scotsburn pastoral lease covers 510 hectares and is located in the foothills approximately 25 kms north of Geraldine. The Orari River flows adjacent to the western boundary of the lease, the eastern boundary is the Scotsburn Stream and to the south the lease drops down on to the Canterbury Plains.

The lease is run in conjunction with freehold land on the Plains. The old Scotsburn homestead is now on a separately-owned freehold title to the north-east of the lease. The Orari River Road gives access to the lease.

The lease is bounded on the north by The Gorge pastoral lease. There is a large area of marginal strip (known as the Scotsburn Bush Reserve) managed by the Department of Conservation adjacent to the Scotsburn Stream and further to the east is some freehold land separating the Scotsburn from Peel Forest Park. To the south is freehold land. Across the river to the west is Orari Gorge station which is freehold. Orari Gorge Scenic Reserve is approximately 2 kms to the west of the Orari River in the Station Creek catchment.

Scotsburn is in the Orari Ecological District, part of the Pareora Ecological Region. There has been no survey of the ecological district as part of the Protected Natural area programme. Scotsburn Bush has been recognised as a SSWI (site of significant wildlife interest) as has the Orari River gorge.



PART 2: CONSERVATION RESOURCE DESCRIPTION.

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2.1 Landscape

Scotsburn is in the southern part of the continuum of the front range/ Canterbury Plains landscape. This continuum is visible from SH 72 which runs roughly parallel along the full length of the front ranges and foothills. The visually striking juxtaposition of the highly modified, man-made patchwork of the plains with the relatively natural, steep, mountainous slopes of the eastern ranges is one of the very essential and distinctive characteristics of Canterbury. Virtually all of this landscape is considered regionally significant in the Canterbury Regional Landscape Study carried out by Boffa Miskell and Lucas Associates in 1993.

There are two types of landscape recognised on the lease. In the south-west corner of the lease is a small area which is part of the Low Altitude Plains landscape type. It is an alluvial terrace formed by the Orari River which has cut down some 10-20m below the terrace surface to its present position. It is a highly modified area divided into paddocks of exotic pasture lined with shelterbelts.

Most of the lease is part of the Foothills landscape type comprising steep greywacke hills. This type can be subdivided into 4 separate units on Scotsburn. These units are:

1. Scotsburn Stream Valley

The lower true right of Scotsburn Stream valley is in the lease, with the marginal strip adjacent to the stream forming the north-east boundary for about 1.5km. The north-east facing valley slope consists of a number of small spurs and gullies giving a variety of microaspects. The country is generally steep and rises to an undulating ridgeline at around 700m a.s.l. This unit is an integral part of the Scotsburn Stream catchment which is predominantly natural and links well with the Mt Peel Range. It is also part of the mainly natural backdrop to Blandwood and the Peel Forest village.

2. Boundary Gully

This is the large branching basin on the west side of the main ridge, draining into the Orari river via a narrow gully. It comprises a number of angular spurs and small, steep gullies concentrated on its northern side and smoother, more planar slopes on its southern side. The unit has some natural cover remaining in the head of the basin but is mainly well developed. It is part of the backdrop to the Orari Gorge.

3. Orari Gorge Faces

The west facing, steep hill slope overlooking the Orari River gorge. The predominant cover here is exotic. The 4wd track traverses and climbs the face to the ridgeline.

4. Front Slopes

Four small valleys that look southwards over the adjoining downlands and plains. They drain both west into the Orari River and east into Scotsburn Stream. The topography here is more rolling, rising to low knobs just over 600m a.s.l. Valley sides tend to be planar and rather concave in form, with narrowly rounded spurs between valleys. Vegetation cover is regenerating native around the foot of the slopes and in the valleys with exotic pasture above.

Excellent views out across the Canterbury Plains and over the surrounding hill and mountain country exist from the high ridges and knobs on Scotsburn. From Little Mt. Peel on the Haoa Range in nearby Peel Forest Park there are good views out across the lease. The overall natural appearance of Scotsburn country is also considered to contribute significantly to the recreational setting of the Haoa Range and, on the eastern side, to the experience available in the Scotsburn Stream.

2.2 Landforms and Geology

Scotsburn pastoral lease consists of moderately steep dissected hill country rising from an altitude of 300m a.s.l to 710m a.s.l. with a small area of flat land adjacent to the Orari River.

The underlying bedrock consists of Torlesse aged greywacke and argillite of medium induration. The hill soils are all Tengawai/ Hurunui Hill soils of medium natural fertility, consisting of approximately 20 centimetres of stony silt loam on deep stony clay over rock. The flats are all Hororata soils of medium natural fertility. There is minimal erosion on the property.

2.3 Climate

The climate for the area is classified as subhumid. Rainfall is 1000-1200 mm/annum. There are occasional heavy winter frosts and snowfalls.

Strong norwest winds are a feature but most of the rain comes from the south. The strong southerlies can mean the weather changes very quickly from a pleasant, sunny day to very cold and sometimes severe conditions. The moist climate, however, provides suitable conditions for a relatively diverse flora.

2.4 Vegetation

The vegetation on the lease varies from cultivated pastures on the flats, oversown and top-dressed tussock grasslands on the hillslopes and regenerating and native bush in the valleys. There is a fair amount of weed cover, particularly around the bush edges and on the colder south or west facing slopes. The vegetation classes are described below.

2.4.1 Cultivated Land

Most of the flat paddocks adjacent to Orari River Road have recently been cultivated. Exotic conifer shelter belts are present, with patches of gorse and scattered silver tussock still present in parts of these paddocks.

2.4.2 Exotic and Short Tussock Grassland

Oversown and top-dressed short tussock grassland is the most common vegetation type on this property, extending from the flats between Orari River Road and Orari River (300m) to the highest hillslopes of Scotsburn Station at 760m. Tussock density increases with altitude. This community tends to occupy the warmer, drier hillslopes, and where regenerating shrubland or forest are absent. Silver tussock (*Poa cita*) is the most common native species, together with the occasional fescue tussock (*Festuca novae-zealandiae*), Maori onion (*Bulbinella angustifolia*), blue wheatgrass (*Elymus solandri*), *Muehlenbeckia axilaris*, and creeping fuchsia (*Fuchsia perscandens*).

The dominant cover is exotic grasses such as brown top (*Agrostis capilaris*), sweet vernal (*Anthoxanthum odoratum*), Yorkshire Fog (*Holcus lanatus*), clover and small amounts of mouse-eared hawkweed at dry sites. On shady faces, and adjacent to regenerating bush gullies, the natives prickly shield fern (*Polystichum vestitum*), bracken (*Pteridium esculentum*), matagouri (*Discaria toumatou*), and mingimingi (*Coprosma propinqua*) can be common. In moist seepage zones, *Schoenus pauciflorus* and flax (*Phormium cookianum*) dominate. The woody weeds gorse (*Cystisus scoparius*), broom (*Ulex europeae*) and Himalayan honeysuckle (*Leycesteria formosa*) are prevalent around the bush edges and on the steep, cold faces (approximately 5% of the property).

2.4.3 Snow tussock grassland

Snow tussock grassland, dominated by *Chionochloa rigida*, is not a common vegetation community on Scotsburn Station. It occurs in one small locality at about 500m a.s.l. on a steep south west facing slope on the Orari River side of Hill 705m. Below is an area of fernland and regenerating bush and, above, it grades back into short tussock grassland.

2.4.4 Grey Scrub

Mixed grey shrubland, comprised of mingimingi (*Coprosma propinqua*), shrubby wineberry (*Aristotelia fruticosa*), *Coprosma rigida* and matagouri (*Discaria toumatou*), occurs at the periphery of mixed broadleaf shrubland, and on shady faces where over-sowing and top dressing has occurred.

2.4.5 Broadleaf/Hardwood Forest

Many of the gullies, and associated south facing slopes, are occupied by regenerating broadleaf/ hardwood forest. The bush varies in its maturity, as reflected in its openness and stature. Bush present in the Scotsburn catchment is the most mature, while that located

in the other catchments varies from being transitional between shrubland and bush, to moderately dense bush. Forest cover is over approximately 10% of the property.

Broadleaf (*Griselinia littoralis*) is the dominant forest species. It commonly occurs where the original beech forest cover has been removed, or where the podocarp overstorey of mixed broadleaf/hardwood forest has been, for example, logged. The prevalence of broadleaf can be attributed to its longevity. The range of other species present depends on the site characteristics, and length of time since the site was disturbed.

At sites where disturbance (probably burning, but also slips), has been relatively recent, the forest is of low stature, and is characterised by broadleaf, three finger (*Pseudopanax colensoi*), wineberry (*Aristotelia serrata*), *Olearia avicenniifolia*, *Pittosporum tenuifolium*, lancewood (*Pseudopanax crassifolius*), tree fuchsia (*Fuchsia excorticata*), cabbage tree (*Cordyline australis*) and *Hebe salicifolia* are present. Kowhai and mountain ribbonwood are also common, occupying fertile sites. This type of bush is common on the open bush clad gullies in the side streams of Orari River. *Cassinia leptophylla*, native broom (*Carmichaelia* sp.) and *Dracophyllum longifolium* occur on the edge of the gullies at rocky sites. Prickly shield fern dominates the ground cover.

Forest occupying gullies in the Scotsburn catchment and south facing front slopes tends to be more mature, with a greater diversity of native plants. On steep slopes, broadleaf and tree fuchsia dominate, with wineberry (*Aristotelia serrata*), red matipo (*Myrsine australis*), mahoe (*Melicytus ramiflorus*), and lancewood common. The understorey includes orihou (*Pseudopanax colensoi*), mahoe, pepperwood (*Pseudowintera coloratura*), *Coprosma rotundifolia*, and *C. colensoi*. The climbers present include *Parsonsia capsularis*, *P. heterophylla* and bush lawyer (*Rubus cissoides*, *C. schmidelioides*). The fern *Phymatosorus diversifolius* grows on rotten logs, while the groundcover is dominated by *Asplenium* sp., *Blechnum fluviatile*, *Polysticchum vestitum*, and *Hypolepis millefolium*, with *Dichondra* sp., and seedlings of broadleaf, *Coprosma*, and *Parsonsia* also present. In moist sites near to streams, the ferns heruheru (*Leptopteris hymenophylloides*), *Blechnum chambersii*, together with pate (*Schefflera digitata*) are also present.

Scattered podocarps, including mature matai (*Prumnopitys taxifolia*) and totara, which have survived being logged, are present on gentler slopes. Emerging totara have been observed on the edges of steep spurs. Large kowhai trees and seedlings occur at the edges of such dense bush, along with lemonwood (*Pittosporum eugenoides*).

Kanuka shrubland occurs on dry hillslopes in the Scotsburn catchment, as well as an isolated patch close to The Gorge Station sheep yards.

2.4.6 Beech Forest

Scattered black beech trees (*Notofagus solandri*) are present in the Scotsburn Stream catchment. Other dominant trees include mahoe (*Melicytus ramiflorus*), wineberry (*Aristotelia serrata*), broadleaf, pokaka (*Eleocarpus hookerianus*), putaputaweta (*Carpadetus serratus*), rata, and podocarps (kahikatea, totara, matai). Kowhai, lemonwood and kaikomako (*Pennantia corymbosa*) are also present.

2.5 Fauna

Birds present on the property include NZ pigeon, SI Pied tit, rifleman, bellbird and brown creeper in the bush areas. Blue duck have been reported on the Scotsburn Stream and are present on the Orari River. Both these sites are listed as Sites of Significant Wildlife Interest (SSWI) and, particularly because blue duck numbers are restricted, protection of the waterways are important. Falcon and Harrier Hawk are present on the upper mountain tops.

Long tailed bats have been recorded from the Orari Gorge.

Rich sub-alpine invertebrate communities exist in the tussock grasslands that have not been grazed. The grasshopper *Sigaus campestris* and several other invertebrates were only found in these ungrazed areas. Seven species of butterflies have been observed including the common Tussock Ringlet Butterfly, two Copper Butterflies (Bolder Copper and Common Copper), and New Zealand's smallest butterfly, the Southern Blue Butterfly. The ground dwelling invertebrates include three sub-alpine grasshoppers *Phaulacridium maginale*, *Sigaus campestris* and *Sigaus spp (australis)* and several ground living beetles. There is also a good variety of flying invertebrate species (bees, wasps, flies, etc.).

The beech forest has the richest invertebrate community in both numbers of species and biomass. Excellent ground cover allows a high density of ground living invertebrates and both ground and darkling beetles live under the logs on the forest floor. There is also a large number of moths in the area.

The river and stream system has several species of stoneflies, caddisflies and mayflies. The New Zealand Dobsonfly (the only species in it's order in New Zealand) is found in the Orari River.

The Orari and the Scotsburn are rich in freshwater fish numbers. Native species known to occur or likely to be present in the Orari include Canterbury galaxias, upland bully and longfinned eel along with introduced brown trout. In years when flows permit some salmon may penetrate into and spawn in the gorge area.

Rabbit and hare numbers are not high. Pigs are causing some damage but this is not extensive. The occasional deer enter the property.

2.6 Historic

The lease was probably part of the Peel Forest Run which was first allocated to Francis Jollie in 1853. This property (25,000 acres) consisted of all the land between the Upper Orari Bridge up to Peel Forest, as well as the spurs running down from Little Mt. Peel towards the Orari River. Parts of the Peel Forest Run were later given to Tripp and Acland of Mt. Peel Station. In 1890 the section of land that now comprises The Gorge and Scotsburn pastoral leases was subdivided into three grazing runs.

There is nothing of historic value known on the lease.

2.7 Public Recreation

2.7.1 Physical Characteristics

Apart from the area immediately adjacent to the road and around the foot of the hills the lease is fairly steep and provides a remote experience. The hill country links very well with the Mt Peel range while the Scotsburn Stream links the ranges to the plains.

2.7.2 Public Access

The Orari River Road provides legal access to the lease boundary and to the Orari River. There is a legal unformed road which starts outside the lease boundary and traverses the bottom of the hill from the Orari River Road to Horsfall Road, near the old Scotsburn homestead. A 4wd track partly follows this legal road when the road joins up with the lease boundary.

Marginal strips in the Scotsburn link the lease to an unformed legal road while the stream itself does flow on down below the lease boundary to link directly to the formed Horsfall Road.

There is no internal legal roads or marginal strips. The 4wd track that traverses the bottom of the hill from the Orari River Road, and links with the unformed legal road, branches off the main track which climbs up on to the top of the run.

2.7.3 Activities

The Orari River Gorge is a popular and well known picnic and swimming area. There is access down the cliff to the river from the end of the Orari River Road. Occasional tramping parties traverse the lease from the Orari River and exit via Mt. Peel or the Scotsburn Stream or vice-versa. Some use is also made of the 4wd track which traverses the bottom of the hill linking the Orari River Road and Horsfall Road. This may include occasional mountainbike races.

PART 3: CONSULTATION AND DISTRICT PLANS

3.1 Consultation

None undertaken at present.

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3.2 District Plans

Scotsburn lies within the Timaru District. The proposed district plan was notified in October 1995 and decisions on the plan were released in April 1998. The lease is all on land zoned Rural 3 which cover areas of the District with high natural values where inappropriate use or development might have an impact on natural values nearby. The plan recognises the priority given by the Resource Management Act to protecting and preserving "matters of national importance" when managing natural and physical resources. Development in or near to natural areas will be controlled to ensure the natural values being protected will not be compromised.

Permitted activities in the zone include:

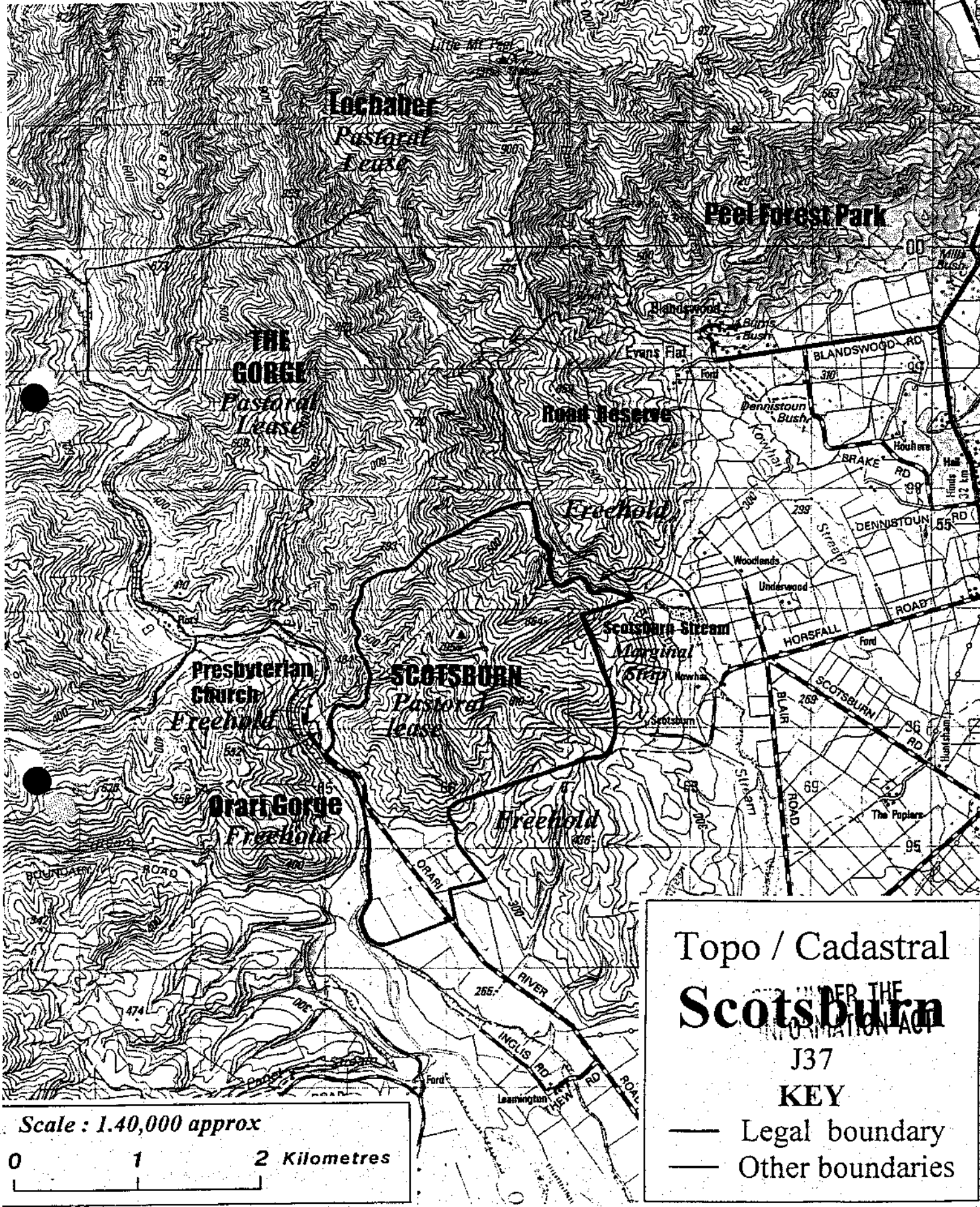
- Public or private land used for conservation or amenity purposes
- Walking tracks, pedestrian bridges, boardwalks and related minor structures which are necessary for those tracks.
- Farming on land which is currently farmed.
- Home occupations in existing household units.
- Shelter belts.
- Prospecting and exploration as defined in the Crown Minerals Act 1991, but not disturbing vegetation cover.
- Mining, quarrying, extraction of soil, rock, shingle, gravel and sand materials occurring naturally on or beneath the site of quantities up to 100 cubic metres in any one year

Controlled activities include:

- Buildings accessory to public or private land used for conservation or open space purposes.
- Any programme of restoration or rehabilitation to enhance the natural values of an area where a use involves the excavation or accumulation of soil or other materials.
- Wood lots

Discretionary activities include:

- Buildings accessory to any permitted activity not provided for as a permitted, controlled or discretionary activity.
- The extension of farming onto land not previously farmed.
- The farming of animals, excluding sheep, cattle, pigs, horses and deer species not already present as feral populations in the area; the introduction of exotic species of flora or fauna in natural areas; the drainage, reclamation, earthworks or clearance of vegetation within 50 metres of any wetland areas.
- Clearance by any means (including burning) of indigenous vegetation.
- Roads, bridges and vehicle tracks.



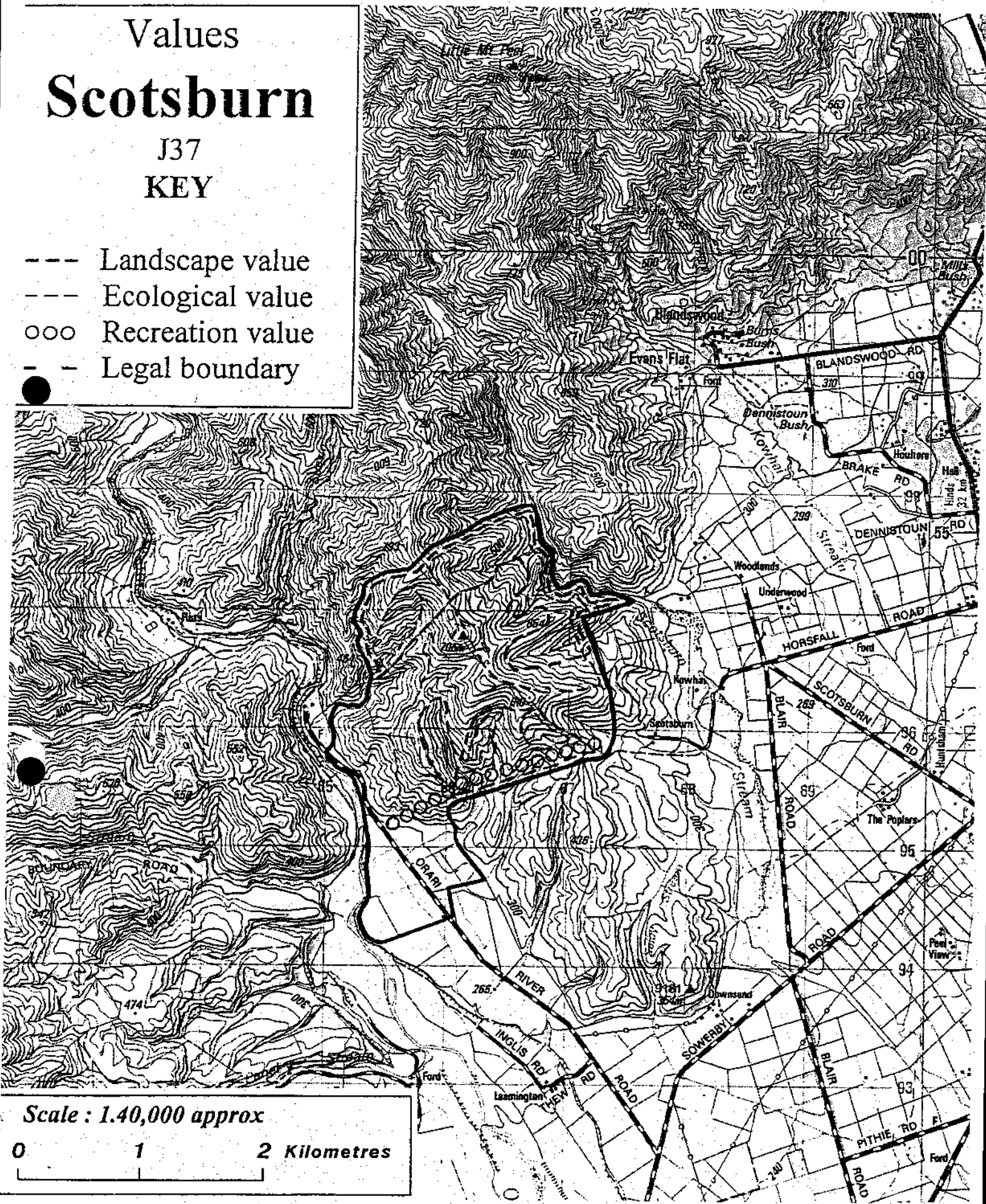
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Topo / Cadastral
Scotsburn
 UNDER THE
 INFORMATION ACT
 J37
 KEY
 — Legal boundary
 — Other boundaries

Values Scotsburn

J37
KEY

- Landscape value
- Ecological value
- ooo Recreation value
- - Legal boundary



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