

Crown Pastoral Land Tenure Review

Lease name : Dalrachney Station

Lease number : PO 292

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 REPORT TO KNIGHT FRANK LTD ON
TENURE REVIEW OF DALRACHNEY STATION PASTORAL LEASE**

PART ONE: INTRODUCTION

Dalrachney pastoral lease (7965 ha) is situated west of the Lindis Pass State Highway. The property encompasses the steep tussocky mountains of Mt Longslip and part of the main ridge running north to Dromedary Hill on Longslip.

Dalrachney Station is situated in the Ahuriri and Lindis Ecological Districts. Both ecological districts comprise folded mountains clothed in short tussock grasslands and exotic pasture grasses on the lower slopes, while tall tussock grasslands occur on the higher slopes.

Dalrachney Station was surveyed as part of the Protected Natural Areas Programme (PNAP) in the mid 1980s. These ecological surveys were done as two separate programmes. One surveyed the Lindis/Pisa/Dunstan Ecological District, while the other surveyed the Mackenzie Ecological Region. These surveys identified three recommended areas for protection (RAPs) were on the property: Lindis B1 Upper Smiths Creek, Lindis B2 North Lindis Pass, and Ahuriri 14 Lindis Pass. The latter two RAPs adjoin the existing Lindis Pass Scenic Reserve of 403 ha.

PART TWO: CONSERVATION RESOURCE DESCRIPTION

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2.1 Landscape

Dalrachney is situated at the northern end of St Bathans Range, north of the Lindis Pass. The property extends from SH8 (Lindis Pass) in the east to the Lindis River in the east.

The eastern part of the property is well known as it is located alongside the Lindis Pass State Highway, a major tourist route. The distinctive landscape surrounding the Pass is perhaps the best known tussock landscape in New Zealand and is a highly identifiable Canterbury landscape.

Broadly, the property forms one more or less homogenous landscape type which is mainly a reflection of a similar geological type over the whole property.

There are however, discernible differences. This is mainly due to differences in the condition of vegetation.

1. The condition of the vegetation varies from west to east. A more continuous, less depleted cover of tussock occurs at the higher Lindis Pass end compared to further west.
2. A reduced incidence of shrubland in the Lindis Pass area compared to significant areas in the Smith Creek catchment.

For both factors (i.e. 1 and 2) altitude is probably the main reason for the differences.

3. More pronounced, broken landscape in the Smith Creek Catchment, (and rounded landforms separating Smiths Creek and the Lindis River) compared to broad, smooth slopes and angular mountains nearer the Pass.

Though broadly the property forms one landscape type, it is convenient to divide it in two for assessment purposes.

1. Lindis Pass

The Lindis Pass type encompasses the front ranges around Longslip Mountain. The small pockets of flat land are developed while some of the lower slopes have been oversown and topdressed. Above 1000m countour the vegetation is primarily homogenous, tall tussock grassland of varying density. While tussock cover is scattered and sparse in some areas, it still conveys the feeling of continual tussock.

The characteristics of the Lindis Pass landscape include:

- The distinctive landform type and enclosure, i.e. smooth rounded low hills contrasting with distant, tall, angular hills and peaks.
- The distinctive colour and texture of the dominant tussock cover.
- The absence of woody vegetation - both native and exotic.
- Cultural/heritage factors. Perceptions associated with the South Island high country. Lindis Pass is portrayed in folklore, legend, poetry, books and paintings.
- Strong visual effects created by lightning on land forms and vegetation.

	High	Mod-High	Moderate	Mod-Low	Low
Intactness					
Coherence					
Distinctiveness					
Visibility					
Significance					

Smiths Creek

Smiths Creek catchment has similar characteristics to the Lindis Pass in terms of geology, landform and vegetation, the greatest difference being in the condition of the vegetation. The western slopes of the main Longslip Range have a similar homogenous, tall tussock landscape to the Lindis, however, the lower slopes, spurs and valley floor are more modified with depleted short tussock, *Hieracium*, exotic pasture species and large drifts of matagouri dominated shrubland.

	High	Mod-High	Moderate	Mod-Low	Low
Intactness					
Coherence					
Distinctiveness					
Visibility					
Significance					

Note: A middle range score for factors of intactness, coherence and visibility reflect that higher parts of Smiths Creek, notably the western slopes of the main Long Slip spur have a higher rating for these factors while lower slopes and the valley floor have a comparatively rating.

Conclusion

The main focus of landscape interest in the property is in achieving some wider protection for the Lindis Pass landscape. The Pass is well known for its spectacular tussockland scenery and is widely recognised as a landscape of national significance.

In terms of landscape character and quality the area identified as priority for landscape protection represents the best example of the typical Lindis Pass landscape type. Its location forming part of the Lindis Pass highway corridor, adds considerable weight to priority being given to this area.

The Lindis Pass landscape is highly vulnerable to change. It is critical that formal protection is secured for an enlarged Lindis Pass representative landscape.

2.2 Landform and Geology

The majority of Dalrachney is relatively steep, rising from 600m to 1554m above sea level. Small flats exist around the homestead gully and alongside Longslip Creek. There are more extensive flats in the valley floor of Smith Creek and its tributaries.

The main mountain range is primarily finely foliated schists. The slopes are dominated by smooth colluvial slopes with predominantly narrow but rounded undulating ridges. The valleys have been infilled by alluvial fan gravels. The soils are Kaikoura and Cass yellow brown earths.

The Longslip and Smiths creeks have numerous tributaries feeding into them forming an even but dissected catchment pattern. The western-most corner of Dalrachney touches the Lindis River for a short distance. The property, in effect, drains into two totally different catchment systems, Smiths Creek/Clutha River and Longslip Creek/Waitaki River.

2.3 Vegetation

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The most notable feature of Dalrachney is the extent of modification to the native vegetation that has occurred over much of the property. Virtually no beech forest remains, shrublands are not extensive though they may be increasing, snow tussock cover is highly variable with excellent cover in some upper catchments; it generally improves above 1000m but is very patchy and sporadic elsewhere. Most of the lower hill slopes are a mix of hard tussock and exotic grasses such as sweet vernal with mouse ear hawkweed often dominant. This community on the more fertile slopes still has a greater component of native herbs and grasses. Most of the valley floors and lower fans are primarily covered by exotic communities with only small areas of native vegetation occurring such as the red tussock communities along the upper Lindis Pass Road (SH8) and some shrublands in Smiths Creek. In places along the ridge tops, green, grassy areas with chewed down slim-leaved snow tussock shows the effect of nutrient enrichment and heavy grazing pressure around sheep camps on this high altitude vegetation.

The best of the remaining native tussock grassland and shrubland vegetation lies to the south and west of Longslip Mountain and the upper catchments below point 1554m. The main ridge slopes have excellent tall snow tussock cover with very few exotic species present.

On Dalrachney there are five main vegetation communities. These are:

i) Exotic Grasslands

Exotic grassland of sweet vernal, (*Anthoxanthum odoratum*) brown top, (*Agrostis capillaris*) mouse ear hawkweed (*Hieracium pilosela*) are sometimes dominant. The native hard tussock (*Festuca novae zelandiae*), small herbs and other plants such as patotara (*Leucopogon fraseri*), hawksbeard (*Crepis capillaris*) and white clover (*Trifolium repens*), covers most of the lower flat land, terraces, and fans and extends to the mid hill slopes in some areas, particularly towards the western side of the run in the Smiths Creek catchment and the catchment north of Longslip Mountain to about 700m. On particularly dry areas and around sheep camps, barley grass *Hordeum murinum*, the bromes (*Bromus tectorum* and *B. hordeaceus*) and other exotic species such as horehound (*Marrubium vulgare*) and woolly mullein (*Verbascum thapsus*) are prominent. Scattered shrubs of matagouri (*Discaria toumatou*) and sweet brier (*Rosa rubiginosa*) occur throughout and form patches in places with the native broom (*Carmichaelia petrei*) and porcupine shrub (*Meliccytus* sp.)

Where fertility is higher such as along lower stream banks and tracks, silver tussock (*Poa cita*) is dominant along with exotic grasses.

These exotic grasslands are interspersed with a few native species and also are difficult to differentiate from the mixed native/exotic community described below.

ii) Mixed Native/Exotic Grassland

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The dominant species here are hard tussock and sweet vernal, often with mouse ear hawkweed prominent along with a wide range of native herbs such as *Raoulia subsericea*, *Leucopogon fraseri*, *Brachyglottis haastii*, *Celmisia gracilentia*, the grasses, blue tussock (*Poa colensoi*), *Rytidosperma pumila* and small shrubs like *Pimelia oreophylla*. The shady south east faces usually contain a wider range of native species than the drier, sunny north and west faces. Narrow-leaved snow tussock (*Chionochloa rigida*) is frequently present either as scattered plants or forms small patches of low stature. This community of hard tussock comprises 15 to 25% ground cover with sweet vernal (10 to 20%), mouse ear hawkweed, where present up to 30% bare ground 5 to 10% (higher on sunny slopes) with other herbs, grasses and mosses making up the rest of the ground cover. Where soil moisture is higher brown top is more prominent. On open ground and shallow soil sites such as some ridge tops, mouse ear hawkweed is more prominent.

This community covers above 60% of the property and forms the major community on the western part of the Dalrachney. This extensive zone has an altitude range 600m to 1100m. While the western portion of the property is predominantly mixed native/exotic grassland some low stature shrubland persists on these faces. Near the main ridge on the Breast Hill/Dalrachney boundary, isolated pockets of shrubland occur along with a few scattered beech trees.

iii) Snow Tussock Grassland

Snow tussock grassland forms the dominant community in the central part of the run over about 900m with narrow-leaved tussock below about 1200m and slim-leaved snow tussock (*Chionochloa macra*) above. Hybrids between the two species often occur where they merge. Some small areas of narrow leaved snow tussock occur at lower levels, including one or two on the steep faces along SH8. The best area of snow tussock is found in the catchment below point 1554m west of Longslip Mountain. Here narrow-leaved snow tussock varies from 50% cover on sunny faces with blue tussock 10%, hard tussock 15%, litter 5%, patotara 5%, *Celmisia lyallii*, *Anisotome flexuosa*, *Pimelia oreophylla*, *Cassinia vauvilliersii*, *Gaultheria novae zelandiae*, *Brachycome haastii*, *Brachycome* sp. (c.f. *longiscapa*), *Lycopodium fastigiatum*, *Aciphylla aurea* and occasional patches of mouse ear hawkweed and scattered tussock hawkweed (*Hieracium lepidulum*). The catchment west of point 1554m also contains patches of *Phyllocladus alpinus* growing at the foot of a large scree slope. Other prominent species occurring here are *Carex coriacea* and *Schoenus pauciflorus*. Seepage areas are generally dominated by *Schoenus pauciflorus* and *Bulbinella angustifolia* but there are also many small sedges, rushes and herbs such *Nertera balfouriana*, *Ranunculus gracillipes*, *Ourisia caespitosa*, *Dolichoglottis lyalli*, *Uncinia divaricata* and *Craspedia* sp. South east of Mount Longslip on a big scree is found *Ranunculus haastii* which is one of the most extensive sites found in the Mackenzie Basin.

Above 1200m slim-leaved snow tussock appears with a cover of 25 to 50% with more bare or stony ground (5 to 30% in places), blue tussock 5%, *Raoulia grandiflora* 20%, *Lycopodium fastigiatum* 10%, *Gaultheria novae zelandiae* 15%, litter 5%. Other species here include *Celmisia densiflora*, *Leptinella pectinata*, *Kellaria dieffenbachii*, *Aciphylla montana*, *Gentiana sp.*, *Hebe buchananii* and *Leucogenes grandiceps* appearing on rock outcrops.

The summit ridge top can be relatively bare, with slim-leaved snow tussock chewed almost to ground level and often sparse or completely gone. Exotic species can be dominant.

Good snow tussock is also found in the adjacent upper catchments to the north of point 1554m. These catchments also contain good shrublands in their lower reaches.

This tall tussock community comprises the majority of the three RAPs that were identified during earlier PNAP surveys. These were:

- a) **RAP B1 Upper Smiths Creek.** This RAP identified a 630ha catchment of upper Smith Creek which was considered worthy of protection. This RAP was identified as a mixture of shrubland communities in the lower reaches, extending through to tall tussock grasslands on the upper colluvial slopes. The shrubland in this RAP is mainly confined to the narrow valley sides and is predominantly Matagouri, *Coprosma propinqua* and the occasional plant of *Coprosma intertexta*. The PNAP report rated this RAP as being a second priority RAP that was analogous with Lindis A1 on an adjoining property. The summary criteria rated the representativeness, viability, and buffering as high, with the remaining criteria as being medium. The report noted that the lower altitude slopes were not as diverse. A re-inspection reinforced this, and the majority of the land below 900m has been a high incidence of introduced pasture grasses.
- b) **RAP B2 North Lindis Pass.** This 720ha RAP was also identified as being analogous to Lindis A2 (Double Peak) and would supplement the adjoining Lindis Pass Scenic Reserve. Although the area is somewhat modified at the lower altitudes it is still largely a natural community. Narrow-leaved snow tussock occurs as single plants or patches within the lower part of this RAP. On the moister alluvial surfaces it has hybridised with red tussock and the latter forms a narrow band alongside the upper portions of Longslip Creek. The other prominent species occurring here are *Carex coriacea* and *Schoenus pauciflorus*.
- c) **RAP 14 Lindis Pass.** This RAP was identified during the Mackenzie PNAP survey and largely overlaps with B2 above.

The Lindis Pass Scenic Reserve RAPs and environs have been the subject of a number of botanical reports and recommendations over the years, all endorsing that

the island of tussock grassland is too small as a reserve, requires adequate buffering and that the area has importance from a scenic viewpoint.

4. Shrublands

Shrubland fills many of the narrow valley floors and is slowly revegetating some lower slopes, with matagouri being the main plant. Sweet brier is also prominent, especially along the faces above SH3. The main species which are present are *Olearia odorata*, *Olearia bullata*, *Melicytus sp.*, *Aristotelia fruticosa*, *Carmichaelia petriei* and *Coprosma propinqua*. Manuka (*Leptospermum scoparium*) is returning to some slopes near the western Dalrachney/Breast Hill boundary. A few isolated mountain beech trees also occur on the ridge alongside the boundary fence and adjoins a more extensive area on the neighbouring property of Breasthill. The western slopes are largely grassland with any remaining shrublands being low in stature and diversity. *Drachophyllum* spp., mainly *uniflorum* but a few *D. longiflorum* and small areas of *D. prorum* appears to be increasing along some south or east facing ridges in the northern parts of the run. *Coprosma intertexta* is also found scattered amongst these shrublands.

The most diverse shrubland remnants are found in the lower catchments which extend onto the main ridge of Dalrachney that runs through the centre of the property.

5. Rock Bluffs and Rocky Ridges

A number of plants favour rock bluffs or the shallow soils of rocky ridges where competition is less or where there is protection from browsing and/or fire. Plants here include *Hebe rakaiensis*, *Oreomyrrhis ramosa*, *Anisotome brevifolia*, *Festuca mathewsii*, *Luzula migrata*, *Parahebe decora*, *Epilobium pubens* and the ferns *Polystichum richardii*, *P. vestitum*, *Asplenium flabellatum* and *A. richardii* on lower bluffs and *Celmisia densiflora*, *Hebe buchananii*, *Pimelia traversii*, *Gaultheria crassa* and *Podocarpus nivalis* on higher bluffs and ridges.

Problem plants on Dalrachney are largely confined to brier and hawkweed. The latter occurs mainly at the lower altitudes or where the ground cover is depleted. The Longslip Creek catchment is a source of Russell Lupins, tree lupins and crack willow. The tree lupin is a recent arrival, having been brought in by road gravel.

The vegetation communities on Dalrachney have largely been defined by past and present farming practices. The lower altitudes are made up of exotic grassland with small remnant patches of native vegetation. Any remaining natural sequences have been destroyed by grazing.

However, the central spine of the property has a very high degree of naturalness. The upper left branch of Smiths Creek has relatively intact shrubland growing alongside the creek margins. These shrublands are moderately diverse and contain the majority of the species listed above. The shrubland edge is abrupt and grades into narrow-leaved snow tussock. These snow tussock faces are relatively uniform

and extensive to the ridge tops. Small screes or rocky outcrops interrupt the overall patterns. Higher up, the narrow-leaved snow tussock grades gradually into slim-leaved snow tussock. This transition is not obvious on the ground.

While the majority of the central portion of the property is fairly natural, a catchment directly north and below Longslip Mountain has been highly modified. The extensive snow tussock slopes are not present, and only remnant scattered plants occur. Elsewhere, the vegetation is a mix of Fescue tussock and exotic grassland. The high inherent values are not present.

Altitudinal patterns in the lower section of Upper Smiths Creek (RAP B1) have been modified over time. However, other catchments have natural values extending to a similar altitude. The northernmost gully next to the Longslip boundary (headwaters of Longslip Creed) provides a similar vegetation component to the central core of Dalrachney.

2.4 Fauna

The shrubland and tussock grassland communities host 23 bird species, six native and 17 introduced species. The rifleman, grey warbler and fantail were noted in the shrublands and beech remnant, while the New Zealand falcon was observed in the east branch of Smiths Creek, and may have been nesting in the rocky outcrops.

Aquatic fauna on Dalrachney was confined to two native species, the upland bully (*Gobiomorphus breviceps*) and the Koara (*Galaxias brevipinnis*). The upland bully is rated 'C' for conservation purposes. Brown trout was also recorded in the streams.

Invertebrates noted were numerous and appear to be closely linked to the existing botanical values. The shrublands in the upper reaches of Smiths Creek hosted the main insect species. Two skink species were located on the property. These were McCann's skink (*Oligosoma marcanni*) and the spotted skink (*O. Lineocellatum*). The latter was plentiful on larger scree slopes along the tops. The common gecko (*Hoplodactylus maculatus*) was also common.

Animal pests are largely confined to rabbits and pigs of the lower altitudes. While the occasional deer, chamois and thar have been noted on the property.

2.5 Historic

Dalrachney was originally part of the huge Morven Hills Run. Morven Hills was taken up in 1856 by the McLean brothers and their sister. John McLean ran Run 235 which extended over the Lindis Pass and included all the land now known as Dalrachney. Morven Hills had a variety of owners and it appears that Dalrachney was sub-divided off in about 1910. It was purchased by Tertius Munro who also jointly owned Longslip. He did not join these two properties together.

The remains of an old hut is still evident alongside the left branch of Smiths Creek. This hut may have been an old boundary hut for the Morven Hills Station.

2.6 Recreation

2.6.1 Physical Characteristics

The Lindis Pass setting is well known to travellers. The distinctive, steep mountain landform of low hills and distant angular peaks is very accessible to the public. Access from the State Highway to the tops and the more remote parts of the property is relatively easy.

2.6.2 Public Access

There are no legal access points through Dalrachney for the public. The Lindis Pass State Highway runs alongside the eastern boundary of the property. The Lindis Pass Scenic Reserve is located in the south eastern corner of the property and while that is available for public recreation the public cannot venture as of right onto Dalrachney.

As the Dalrachney lease has been renewed, any stream over 3m on the property will have marginal strips laid off automatically.

2.6.3 Activities

The Lindis Pass State Highway provides tourists with an opportunity to appreciate the eastern sector of Dalrachney. This appreciation is primarily passive and is oriented around the tussock grassland landscape that survives today. While travellers stop on the Pass, few venture off the main road. For those who do, the majority stagger up a small hill to the north of the pass.

To date, there is little recreational use made of Dalrachney despite the area being easily accessible. Good farm tracks (4WD only) provide access onto the tops, through the property to Smith Creek and to the Lindis River. Considerable potential could exist for tramping, mountainbiking, horse riding and hunting. Also god round trips may be available as other properties join the tenure review process.

PART 3: CONSULTATION AND DISTRICT PLANS

3.1 Consultation

An NGO meeting was held in Oamaru in June 1996. Following on from this, two written comments and one verbal comment have been received. The main issues identified were:

- i) Landscape importance of Lindis Pass.
- ii) Extending the existing Scenic Reserve.
- iii) Excluding stock from Reserve area.
- iv) Obtaining access to Smiths Creek, Lindis River and Mount Longslip.
- v) Access for foot, mountainbikes, cross country skiing and horses.
- vi) Round trips be considered.
- vii) All water courses over 3m to have marginal strips laid off.
- viii) All class VII and VIII to go to DOC.

3.2 District Plan Provisions

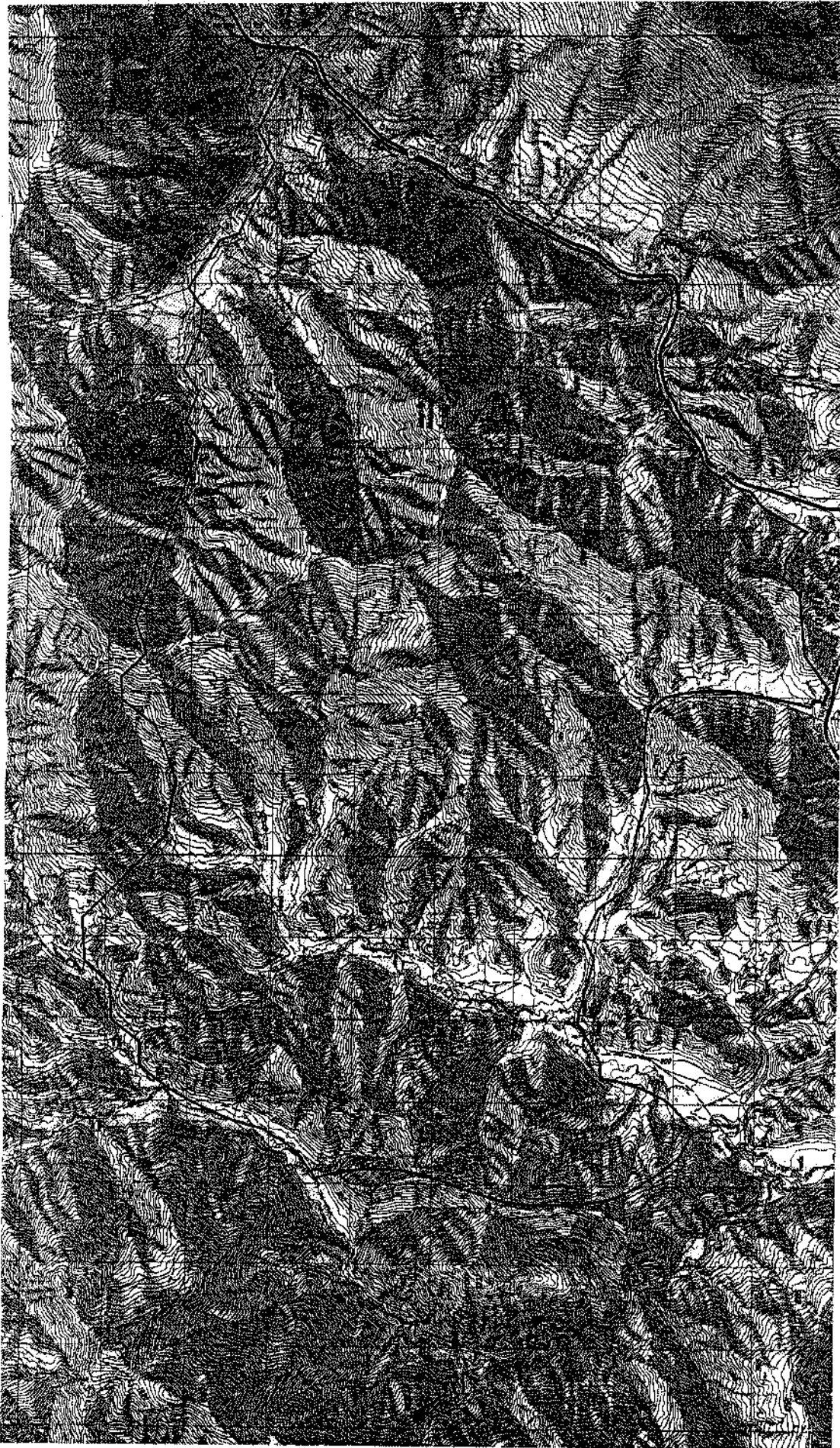
Dalrachney lies within the Waitaki and Central Otago Districts. These plans are at various stages of review. The Waitaki District Plan has been notified and is now operative. The public submissions phase has passed and the submissions are being collated and analysed.

Dalrachney is zoned 'Rural' and is subject to a number of rules. The main rules applying to Dalrachney affect the majority of the land over 900m. The following cannot be undertaken over 900m without a resource consent.

- i) building
- ii) earthworks
- iii) indigenous vegetation clearance
- iv) exotic tree planting.

Resource consents are also required for any activity that has been identified in areas of significant nature conservation value identified within the District Plan, except at this point no areas of conservation value have been identified on any planning map. Although the Department of Conservation has asked for RAPs on Dalrachney to be included. The notified District Plan does not identify any landscape value through the Lindis Pass.

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Key
—— Run boundary

MAP 1
Topo / Cadastral
Dalrachney
G 39

1 0 1 2 km