

## **Crown Pastoral Land Tenure Review**

**Lease name : ROBROSA**

**Lease number : PO 252**

### **Conservation Resources Report - Part 9**

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.

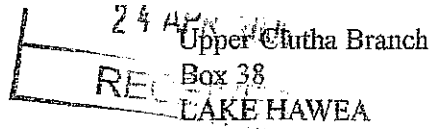
Note: Plans which form part of the Conservation Resources Report are published separately.

These documents are all released under the Official information Act 1982.

**August**

**06**

21st April 2006



FOREST  
& BIRD

ROYAL FOREST &  
BIRD PROTECTION  
SOCIETY  
NEW ZEALAND

Mr Tony Perrett  
The Manager Tenure Review  
Department of Conservation  
77 Stuart Street  
PO Box 5244  
DUNEDIN

Dear Tony

**ROBROSA - An Early Report**

This property was introduced to us at the last meeting of stake holders held in Alexandra on 23<sup>rd</sup> August, 2005 and again discussed on 12<sup>th</sup> April 2006.

We have inspected this property with the kind permission of Mr John Lee and would like to take this opportunity to thank him for allowing us to do so.

Our branch, as does the whole society nationwide, supports the Crown Pastoral Land Act 1998 and also the complementary objectives to that act announced in February last year. (Please refer to EDC Min 5/3; CAB Min (03) 11/5). These are:-

- *To promote the management of the Crown's high Country in a way that is ecologically sustainable*
- *To promote the significant inherent values of reviewable land by the creation of protective mechanisms; or preferably, by the restoration of the land concerned to full Crown ownership and control*
- *To secure public access to and enjoyment of high country land for the public to enjoy*
- *To ensure that conservation outcomes for the high country are consistent with the New Zealand Biodiversity Strategy*
- *To progressively establish a network of parks and reserves*

We would be pleased if you would accept these comments and suggestions on Robrosa.

In this review of Robrosa we must fully take into consideration a final outcome whereby the result is in keeping with the objectives above; especially: "*To progressively establish a network of parks and reserves*", as this property has been identified as a key lease for the Pisa Range Conservation Park, one of the Parks mentioned by Government in "*A Six Pack of Parks*".

**1. General Points to be Noted**

Robrosa is a moderately sized lease (3 683.93ha) situated in the Cardrona valley, about 5km down valley from Cardrona Village and 17km away from Wanaka township. It comprises most of the country between the Waiorau Snow Farm Road and Deep Creek (refer attached map).

This property fronts on to the Cardrona Valley Road for about 1.5km. The Cardrona Valley

Road (SH89) is a major route connecting Wanaka and Queenstown. The lower third of the property facing west onto the Cardrona River is the only part of the property that can be viewed from SH89. The Cardrona River runs through the valley floor area which is at about 450m asl. A marginal strip runs along the river, resulting in a very narrow strip of leasehold land between river and highway.

The property also extends right over the top of the Pisa Range. It is essentially a 3-4km wide "slice" of the range, including a portion of western range slope (the sunny west facing true right of the Cardrona valley) ranging from 450m asl to around 1300m asl at its crest; and a portion of the range summit plateau from one side to the other, reaching just over 1900m altitude on the eastern rim near Mt Pisa (1964m asl). The plateau area comprises around two thirds of the property.

The property takes in the head waters of Luggate Creek including Cliff Burn and Princess Creek, draining northwards. The headwaters of these creeks are impressive finishing up in cirques and tarns, alpine in character, home to many varied plant communities some of them exclusive to the Pisa range. The western range margin and valley slopes all drain into the Cardrona River.

Two thirds of the property, the land above 1000m approximately, is all Class VIIe and Class VIIIe land thus with very limited potential for on-going pastoral productivity (refer attached map). It is unlikely to be able to be farmed in an ecologically sustainable way as the fertiliser inputs would cost more than the returns earned off it. Runoff into all the streams, bogs and seeps would also be of concern.

Robrosa lies within the Pisa Ecological District, essentially characterised by a huge isolated schist fault block mountain range with steep slumping sides and a gently tilted high alpine plateau summit, the highest in Otago. This is one of the most distinctive landform and ecological regions of New Zealand, a remarkable summit landscape (PNA Survey Report for Lindis, Pisa and Dunstan Ecological District 1994); "stunning high country" with extensive views across the Clutha, Cromwell and Wakatipu Basins (Pisa Conservation Area pamphlet DOC Oct 2005); a defining landscape of Otago (Six Pack of Parks Poster).

The higher eastern part of the summit area is part of the PISA TOPS RAP A3, recommended for protection under the PNA programme (refer attached map). The area is rated High in nearly all criteria classes in the PNA survey and is of outstanding representative significance

## **2. Surrounding Lands (refer attached Map)**

- to the northeast round to the south the Pisa Conservation Area adjoins
- to the north, the middle part of the lease adjoins the Mid Run Special Lease
- to the north of the western summit area and range slopes there is freehold pastoral land. The Criffel Conservation Area – a small isolated area some 4-5km square – lies about 1.5km away from the Robrosa boundary to the north, accessed by a walking easement from the Cardrona Valley Road on the south boundary of Avalon, a former pastoral lease now freehold through tenure review. The Larches pastoral lease – the last remaining along this side of the valley besides Robrosa – shares the north boundary of the Criffel Conservation Area.
- opposite on the west side of the Cardrona valley is The Branches pastoral lease
- to the south, between the Pisa Conservation Area and the Cardrona Valley Road, is the

freehold Waiorau Snow Farm area. The access road is very close to the south boundary of Robrosa. The summit area of the Snow Farm has been extensively developed for commercial skiing and vehicle testing resulting in devastating adverse visual effects on landscape as a result, mainly through earthworks which have not been mitigated successfully through re-modelling and re-vegetation.

### 3. Property Description

The property can be divided into four distinct areas of landscape character:

- 1 Range summit (plateau)
- 2 Upper range slopes
- 3 Lower Range Slopes
- 4 Valley Floor

#### 1 Range summit (plateau)

The summit area is in the Meg Land System. It is a very distinctive alpine landscape featuring extensive cushionfield and short tussock, limited tall tussock, lag gravels and stone pavements on exposed ridges; its topography being surprisingly gentle belying its high altitude (PNA Survey Report for Lindis, Pisa and Dunstan Ecological District 1994). It comprises an ancient peneplain, tilted gently to the northwest. Its surface is quilted with stream valleys, separated by large gentle rounded spurs. Some larger valleys have flat floors of peat bog, sands and gravels. On the highest part of the range around Mt Pisa are shallowly glaciated cirque basins such as the head of Cliff Burn, infilled with till; but periglacial phenomena are most prevalent over the plateau – soil hummocks; solifluction forms; frost heave patterns in surface rocks and gravels. The plateau area is abruptly bounded by fault margins. Cliff burn is a geopreservation site on account of its glacial features.

The plateau area is habitat and breeding ground for a number of birds – dotterel, tern, oyster-catcher, gull, for example – unusual at such high altitude.

Cultural features are limited to a few 4WD tracks and stock fences (in great contrast to the extensive scarring earthworks and various buildings and fences associated with the Snow Farm adjacent).

(See Photos # 8-10).

#### 2/3 Upper and Lower Range Slopes

The steep western side of the range is in the Criffel Land System. The range sides consist almost entirely of deep seated slumps into which numerous gullies are incised, formed an intriguing irregular topography of small knolls and basins, ridges and gullies with numerous rock outcrops (see Photo 3). This is one large landslide zone. A tor-studded headscarp between 1000 and 1300m forms the abrupt change in slope, separating plateau from range sides (see Photos 3-5). It forms a castellated skyline seen from the valley floor (see Photos 11 and 12). Modified short tussock grassland (replacing former tall tussock at higher altitudes), exotic pasture, sweet briar and grey scrub forms the cover.

The upper range slopes above 900-1000m are “cleaner” with relatively little shrub vegetation. Numerous rock tors of various sizes and shapes dot the landscape, giving it a special and intriguing character.-

The middle ground between 700 and 1400ms sees the silver tussock fading out and fescue tussock becoming more evident; and above about 1000ms the cover becomes depleted and blue tussock and spaniards dominate the pasture. Snow tussock is present in a few favoured places. At 1400ms the ground becomes very bare (see Photo # 5 ):-

Lower slopes are of more even gradient, incised by relatively straight gullies; and have a

thicker cover of scrub, large patches of which have been sprayed. The cover on the lower slopes from the valley floor up to the first fence at approximately 740ms mainly consists of exotic grasses such as brown top, sweet vernal, some cocksfoot and fescue, barley grass is also evident on the sheep camps. These lower slopes carry some silver tussock and many woody grey shrubs such as matagouri and coprosma and a few olearias, as well as sweet briar (see Photo # 1).

A 4WD track zig zags up the middle of the range slope. The lower part is fenced into smaller grazing blocks.

#### 4 Valley Floor

The valley floor at around 450-500m altitude consists of narrow alluvial floodplain formed by the Cardrona River. Small alluvial fans with steep scrubby river cut scarps lie at the mouths of larger gullies. These areas have been largely cultivated for exotic pasture. The riverbed itself is gravel and boulders with extensive willow and broom/gorse cover. Small stands of mature conifers and the farm buildings are located here.

### 4 Inherent Conservation Values

#### Cardrona Valley Faces

The Cardrona valley faces of Robrosa are an integral part of the whole valley landscape, which has been classified as outstanding natural landscape in the Queenstown Lakes District. There are no visual cues as to where one property starts and finishes. The homogenous cover of generally brown to gold pasture grasses and short tussock and grey scrub and briar, with kamuka scrub in places, over a—topography consistent in form the length of the range is quite remarkable. A strong sense of naturalness and visual intactness and coherence is evident, with a pastoral overlay. Apart from the Snow Farm road and an obvious zig zag farm track nearby there are few visible fence lines and tracks across the range.

The slopes are highly visible from the Cardrona Valley Road, an important New Zealand tourist route. They create a distinct highway experience dominated by natural landscape. Robrosa is an important part of that. The skyline is distinctive and eye catching, with its overall consistent height but detailed micro topography studded with rock tors. The west facing range slopes are also a major part of the expansive outlook from Cardrona ski field.

Indigenous woody vegetation is a feature of the mid to lower slopes, despite the spraying that has been undertaken. Given freedom from interference a thicker cover would probably return as there is plenty of seed source around. These shrubs peter out at about 900ms (See Photo #2). There are currently no areas along the range face that are protected for their vegetation and landscape values. This tenure review provides the opportunity. A small area of mixed shrubland in Deep Creek just downvalley of Robrosa was identified as RAP B5, containing the vulnerable broom *C. kirkii*. However this is only a very small area; it is on freehold land; and there is no certainty its protection can be secured.

Over the upper range slopes, the open “clean” grassland cover combined with the small scale hummocky topography and fascinating rock tors provides a very interesting natural landscape of high aesthetic value. The upper range landscape with its numerous tors and hidden gullies and basins invites exploration and would offer marvellous photographic subject matter.

The loss of healthy tussock cover including loss of tall tussock altogether is a detracting factor, but the area retains its significant inherent landscape values.

There are panoramic views of the Cardrona valley including the steep rugged country of The Branches through to Hillend from higher vantage points.

We have been advised that some of this country has been over sown and top dressed in the past, but it is not very evident today. These faces still retain a natural short tussock grassland appearance, therefore they must be protected (see Photos # 3 & 4 ).

There is only one formal public (walking) access route up the face of the Criffel/Pisa Range (the easement on Avalon). The vehicle access via the present Snow Farm road to the south of Robrosa may no doubt also be regarded as access to Robrosa, but it must be remembered that this is a toll road at the discretion of the land owner.

Walking access is only provided from a point some hundred or so metres amongst the buildings north of the Snow Farm car park. This enables walkers (and we presume skiers) to descend to the Meg Stream, cross that stream and on to the present Pisa Conservation Area - we believe any area coming out of Robrosa above 1000ms deserves more reasonable and secure access to it.

Robrosa's tenure review provides a good opportunity to secure additional permanent public access from the Cardrona Valley Road up into the Pisa Conservation Area. The existing 4WD is an excellent existing route providing walking, tramping and cycling access right across to Mt Pisa and the head of Cliff Burn. This would support rewarding trips from one side of the range to the other, as well as loop trips along with the Avalon easement or Tuohys Gully-

It must be noted here that this 4WD route passes through into the Waiorau Snow Farm at the crest of the range at about 1500ms, therefore it would not give direct wheeled access to the Pisa Conservation Area where it starts at the saddle between Luggate Creek and the Meg Creek. There is no reason however that would preclude 4WD access being provided, if required, through the top of Robrosa to join up with the 4WD route that zig zags up the present north boundary of the present Pisa Conservation Area.

### **Pisa Range Summit**

The extensive plateau area has irrefutable significant inherent values particularly in respect of landscape and recreation. As stated earlier it has been described as a stunning and remarkable high country alpine landscape, one of the most distinctive landform and ecological regions of New Zealand. It is a large and integral part of the impressive and expansive alpine area, with high attributes of naturalness, visual coherence and intactness, despite degradation of tall tussock communities. It shares the alpine cushionfield, bog and grassland communities present in the existing Pisa Conservation Area. At the head of Deep Creek which rises to the west of the Criffel - Luggate watershed there are considerable interesting flushes (see Photo # 6). There are also considerable flushes at the head of the Luggate Creek (see Photo # 7).

Periglacial and glacial features and solifluction phenomena are just as widespread through the Robrosa area as anywhere else. The head of Cliff Burn is a spectacular area of cirque basin, rock walls, tarns, ice gouged rock, till and talus (see Photo 11). It is a geopreservation site.

-6-

There are several uncommon plant species present on the plateau as well as some threatened species, eg. Chionohebe, Cotula, Myosotis, Epilobium and Poa species.

The plateau area offers superb recreational opportunities and a special landscape experience.

There is a real sense of remoteness, exposure and naturalness. The relatively gentle topography at such high altitude provides an interesting setting. This whole area with its high cirques and basins is a mecca for cross country skiing in winter.

This top area will prove of immense value for tramping, mountain biking in summer, and general nature appreciation for those interested in botany and photography. The stark beauty of

the area, the rugged wind-blasted pillars and blocks of rock in contrast to the smooth rounded expanses of grass, prostrate plants and gravels offer superb artistic opportunities.

The area above 1000ms and particularly the plateau area is central to the achievement of the Pisa Conservation Park. The plateau area on Robrosa would be a substantial and valuable addition to the existing conservation area, including a variety of natural features and some of the highest altitude glaciated areas.

It would allow the large compact area identified in the RAP to be protected. At least half of the summit area on Robrosa is part of the large (8560ha) compact Pisa Tops RAP A3. Its values are similar to those of the area already made a conservation area through the Mt Pisa tenure review. If the plateau area were to become part of the Pisa Conservation Area, the isolated Criffel Range area would be much less isolated. Access into the Pisa Conservation Area from the Criffel Range would be much easier and more direct. A far more comprehensive protection of outstanding natural landscape would be achieved.

The remote Fatboy Diggings in the Princess Burn catchment are important as they are an example of a near complete gold mining system including extensive sluicings and water races.

## 5 Discussion and Recommendations:

**Our recommendations are shown in Map 1 and in Photomontages 1 and 2.**

1. the landscape of the Cardrona valley, the west facing side of the Pisa Range, has significant inherent values and is outstanding natural landscape. It is a key part of an important tourist highway corridor. There is an opportunity to secure public access from the road up into the summit plateau conservation area, and to achieve an almost a full sequence of valley floor to summit landscape, something that has not been achieved anywhere else in the valley.
2. the upper slopes above 1000m altitude are Class VII and VIII. They have limited ability to sustainably carry pastoral use. The area has substantial significant inherent values however.

**It is our recommendation that:**

1. a vertical strip of land centred about gullies with a stronger native shrub component and close to and including the existing 4WD track is fenced off and retained as conservation land; to promote regeneration of native shrubland and tussock cover at lower altitude and provide permanent year round public access to the tops. Access would be for walking/running, mountain biking and horse riding only.
  - (i) all the land above approximately 1000m altitude is fenced off from the lower range land and retained as conservation land, allowing free exploration of the area by the public and rejuvenation of the native cover.
  - (ii) public access be provided by way of a short 300m easement between the Cardrona Valley Road and the proposed conservation area; or from the Cardrona River marginal strip, if better access between road and river is available elsewhere in the

vicinity.

(iii) farm access by way of easement would be required over that portion of the 4WD track within the proposed conservation area.

The summit plateau area has irrefutable significant inherent values, similar to those of the existing conservation area, as they are both part of the same extensive RAP. It deserves protection from any development whatsoever and it deserves a chance to recover its natural vegetation over time. It will form a valuable part of the new Pisa Conservation Park. Its landscape, even in its modified state, is essential to the enjoyment of the recreational values present in this upland plateau.

The Crown in the 1980s went to a considerable amount of trouble to conduct surveys in the various ecological districts to identify any Protected Natural Areas. These surveys were conducted in a professional manner by experts and in the case of Robrosa most of the upper reaches of the Luggate Creek and its tributaries, the Cliffburn and Princess Creek were recommended as an area for protection - PISA RAP A/3. In our opinion the tenure review process is the correct time to return this country to full Crown control for protection.

The plateau area has its own ecosystem and biota. The Crown intends *"...To ensure that conservation outcomes for the high country are consistent with the New Zealand Biodiversity Strategy..."* Here again the tenure review process is the correct method of returning the land to the Crown to conserve the unique biota.

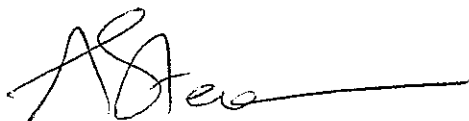
In our inspection it became evident to us generally that the land above about 1000ms could not be regarded as being ecologically sustainable in that it would not be economically viable to apply fertiliser to replace the minerals taken off in the way of meat and wool.

**It is our recommendation that the entire summit plateau area be retained by the Crown for the purposes of conservation and public recreation.**

If this review were to proceed it would be possible - if care were taken - to find a discreet fence line somewhere around the 1000m contour (see Photo # 4).

We thank you for inviting us to comment on this property and we await with interest the possibility of a suitable preliminary proposal becoming available for us to pass further comment on.

Yours faithfully,



John Turnbull and Anne Steven  
For Upper Clutha Branch

*Attachments:* Photos 1-12, Photomontages 1 and 2, Map One



Photo # 1. This photo shows the woody shrubs present in the modified tussock - silver tussock being present up to about 700ms.



Photo # 2. Shows the last of the shrubs and the short fescue tussock present in the pasture at about 900ms



Photo # 3. This photo shows the escarpment country between 1000 and 1300ms from just above the boundary with Labrador Park. The upper reaches of Deep Creek are on the left of the picture. The cover is mainly short tussock grassland which fades into depleted country at the top of the escarpment

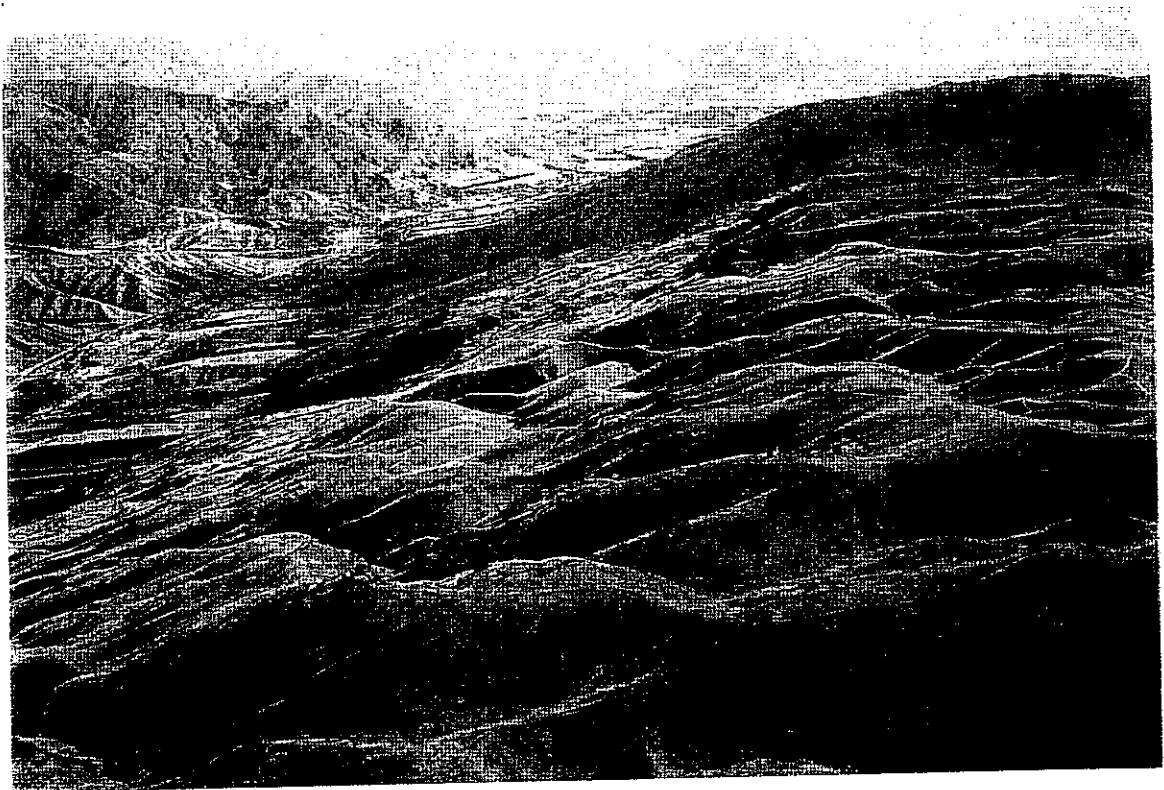


Photo # 4. This photo is taken from the south side of the front faces again looking over the escarpment country.

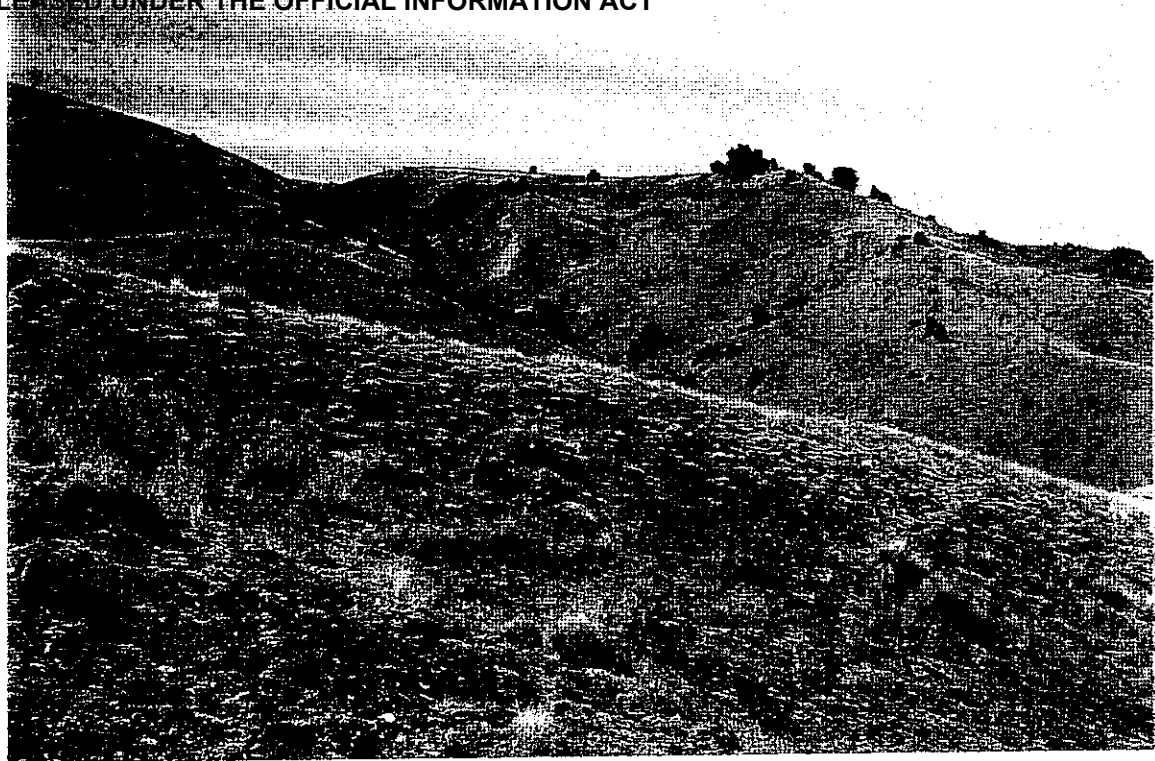


Photo # 5. Depleted fescue tussock country with infestation of Spaniards, between approximately 1300ms and 1400ms. This country is not ecologically sustainable but has conservation values in its landscape.



Photo # 6. This photo shows the flush towards the head of Deep Creek. Note the solifluction on the far side of the flush. The cover is sparse exotic grasses, fescue tussock with some tall tussock in favoured places. Blue tussock is also present in his area. Altitude about 1400ms.



Photo # 7. The country to the left of the photo is RAP A/3PISA. To the right of the fence is Pisa Conservation Area ex Waiorau. The catchment is the head of Luggate Creek with its wetlands. Some scattered tall tussock present. The highest point on the skyline is the eastern boundary of Robrosa and over 1700ms.



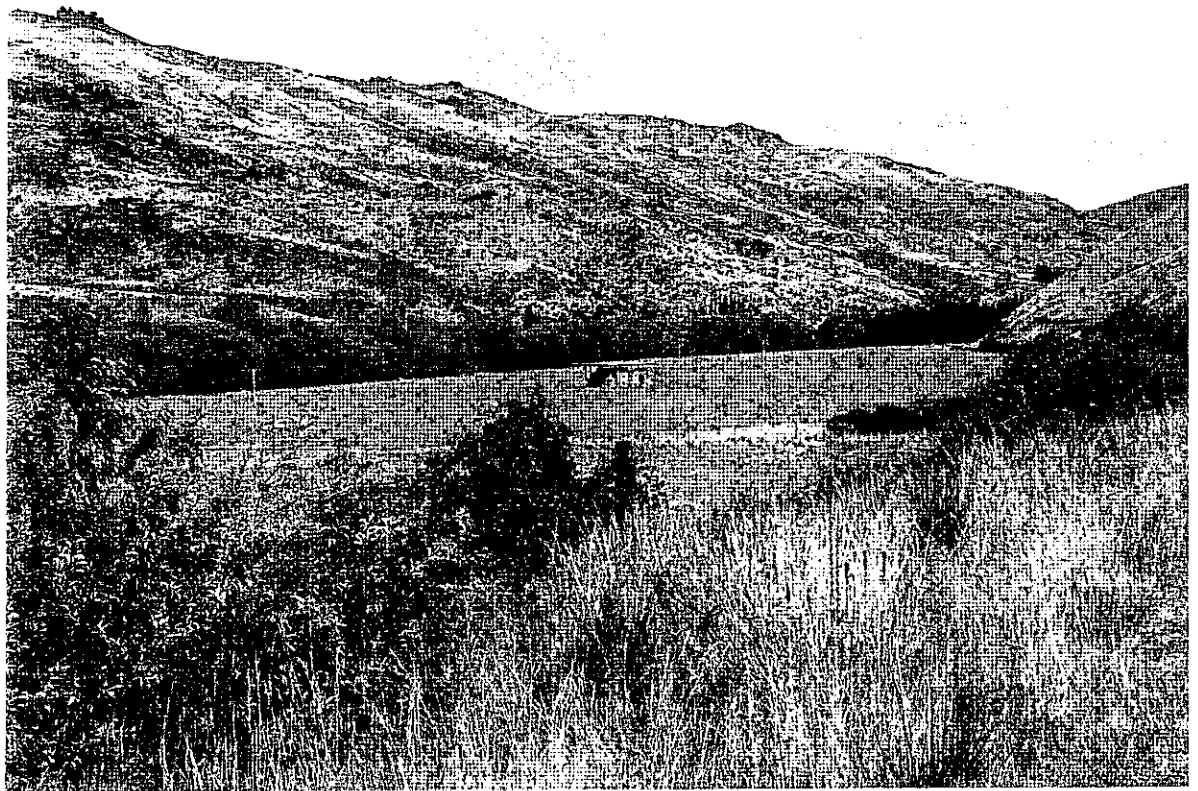
Photo # 8. Photo taken from .1647 near the ridge on the eastern boundary. *Celmisia viscosa* is present on the face in the centre. The cover is a mixture of quartz gravel, lichen and mosses.



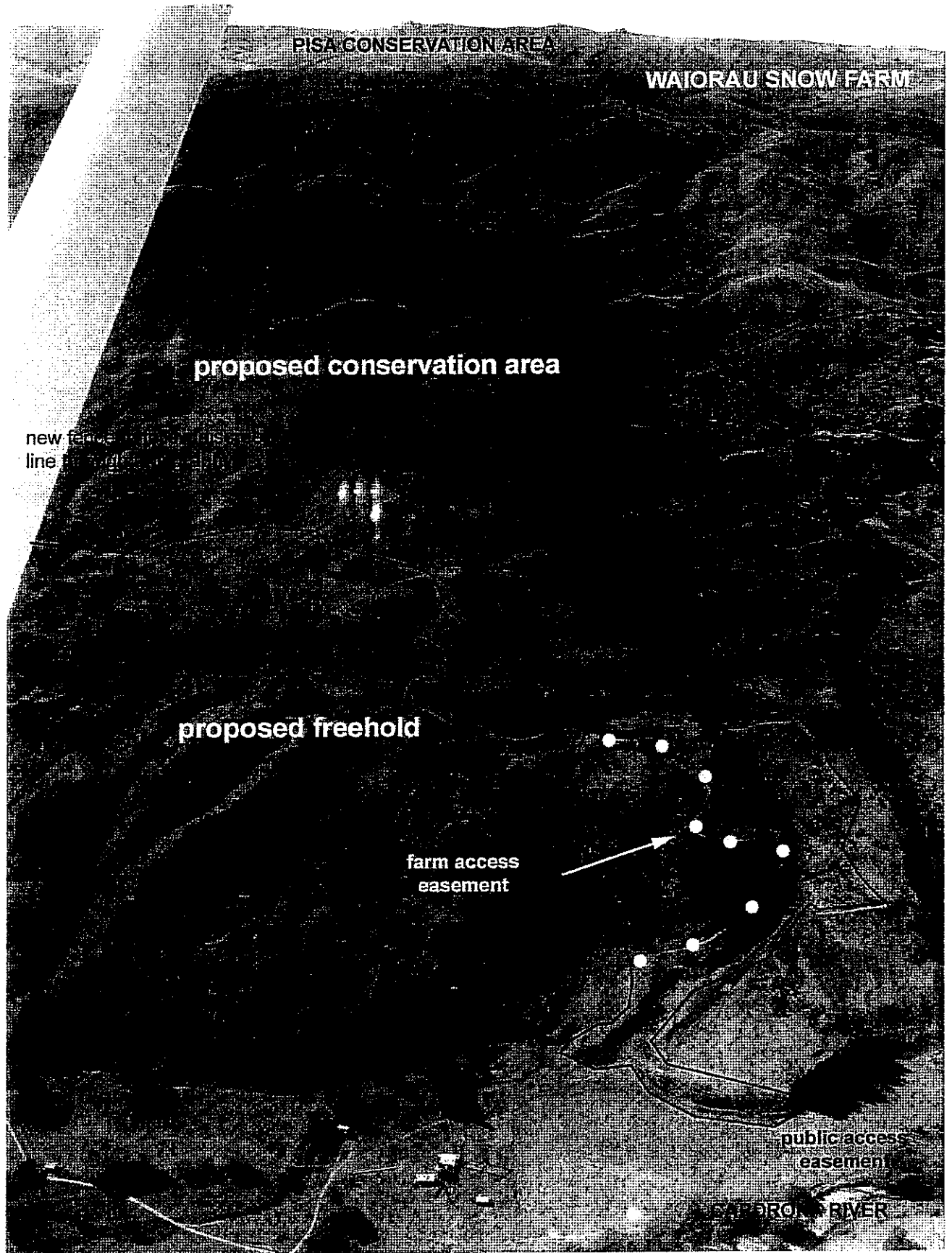
**Photo 9.** Headwaters of Cliff Burn, a glacial cirque with tarns  
(Photo: A Steven February 2006)



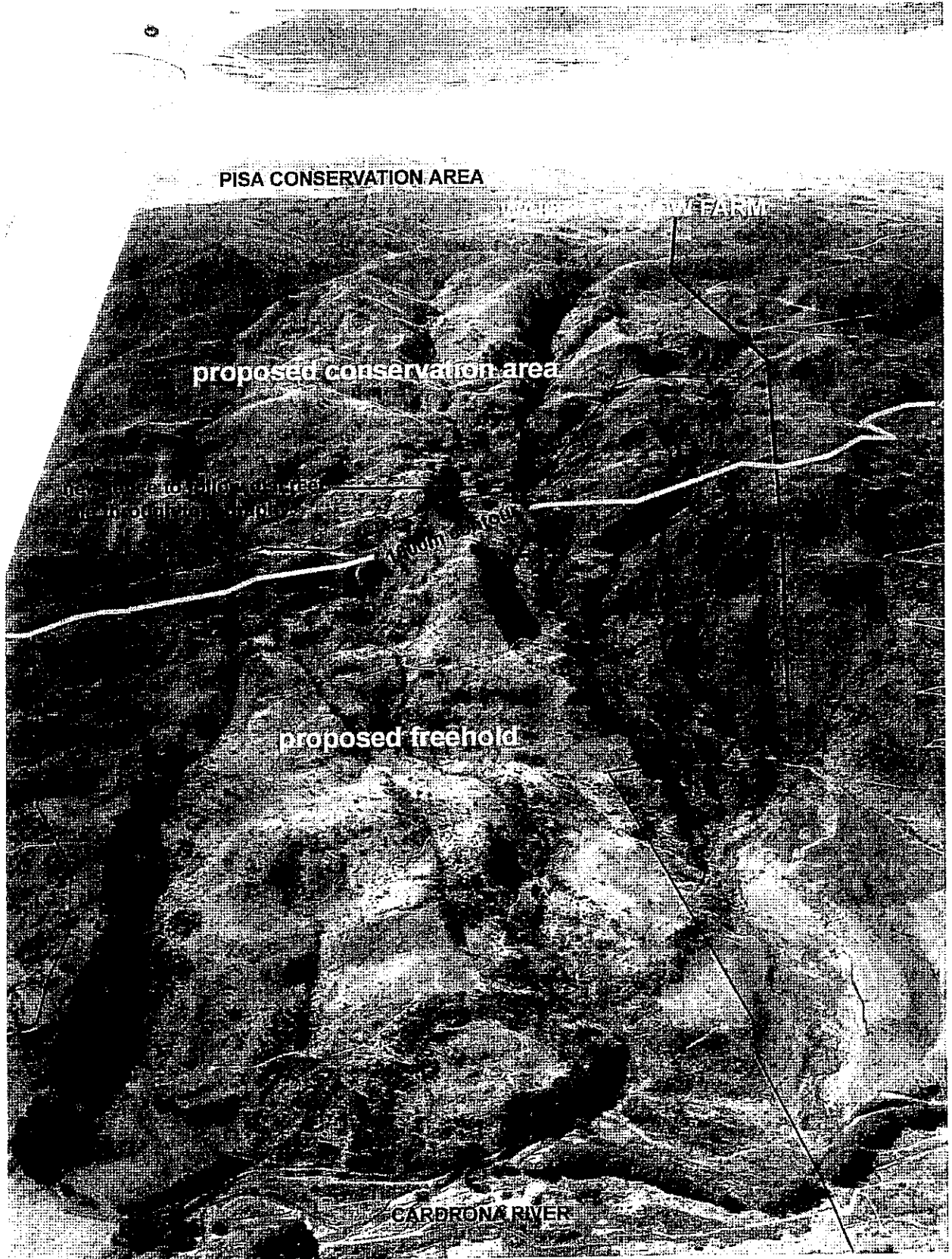
**Photo 10.** Overview of plateau summit landscape from south boundary  
(Photo: A Steven February 2006)



**Photos 11 and 12.** The Cardrona valley slopes, with distinctive tor-studded skyline.  
(Photo: A Steven February 2006)



**Photomontage One.** Recommendations for Tenure Review on Cardrona Valley Faces, to north of Welshes Creek



**Photomontage Two.** Recommendations for Tenure Review on Cardrona Valley Faces, about Welshes Creek