

Crown Pastoral Land Tenure Review

Lease name : BEAUMONT STATION

Lease number : PO 362

Conservation Resources Report - Part 3

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.

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APPENDIX 11: FMC Report on Recreational Values, including Supplementary Report

F362



FEDERATED MOUNTAIN CLUBS OF NEW ZEALAND (Inc.)
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PASTORAL LEASE TENURE REVIEW

**Preliminary Report on the Recreational, Landscape, Historic
and other Conservation Values of, and Recommendations
for the Outcomes of Tenure Review**

BEAUMONT STATION

March 2010

**Compiled for Federated Mountain Clubs (FMC) of NZ (Inc.)
by Dr Michael J S Floate, High Country Consultancy**

**PRELIMINARY REPORT ON THE RECREATIONAL, LANDSCAPE, HISTORIC
AND OTHER CONSERVATION VALUES OF, AND RECOMMENDATIONS
FOR THE OUTCOMES OF TENURE REVIEW ON BEAUMONT STATION**

**A Report for FMC based on Field Inspections and other research
to assist in the Crown Pastoral Lease Tenure Review Process**

February 2010

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Fig. 1 Beaumont homestead and farm headquarters are situated at about 400m above sea level, and about 300m above the Clutha River between Beaumont and Millers Flat. The main farm buildings are situated among improved pastures developed over the years by scrub clearance and oversowing and topdressing. Some remnants of sprayed scrubland can be seen in this view.

Fig. 2 The property extends over 20,000ha of upland and high country with tussock grasslands rising to 1,200m on Lammerlaw Top and includes extensive wetlands. In the north west corner, its boundary follows the shore of Lake Onslow at almost 700m above sea level. The lake level has been raised three times to provide irrigation water and a source of hydro electric power. Water harvesting is an important issue in this tenure review.

Fig. 3 Much of the lower country on Beaumont, up to about 800m, has been developed into improved pastures. The best of these, at lower altitudes, are intensively farmed with sheep and cattle grazing. Some evidence of former Manuka/Kanuka shrubland can be seen as remnant patches in some gullies.

Fig. 4 The higher country, above about 800m, includes areas of high natural and landscape value which contribute to the wider experience of travelling into the heart of Central Otago and exploring its block mountain ranges. Although not currently easily accessible by the public, there is a case for these resources to be returned to Crown control for the public to enjoy. Lammerlaw Rock is a notable feature of these uplands.

Fig. 5 Wetland features such as small gully-head bogs are more usual above about 1,000m but on Beaumont start to appear at about 800m. This may be related to geographic/climatic factors such as south facing aspect and prevailing winds from the Antarctic. These bogs, sometimes with bog pine, are significant ecological features which are important for the vegetative and landscape diversity of the Lammerlaw uplands.

Fig. 6 The transition from developed pasture to less modified tussock grassland is well seen in the upper catchment of the Talla Burn. Improved pastures can be seen in the distance at about 600m above sea level, while the tussock grassland in the foreground at about 800m is little modified. Even at this altitude the tussock grassland is in good condition and is worthy of protection by return to Crown control.

Fig. 7 The Lammerlaw Range is not a prominent feature but it does reach over 1,200m at its highest point on Lammerlaw Top. It is the only place on Beaumont Station where sub-alpine scrub occurs, reflecting the severity of exposure on these ranges. It is likely to become a recreational destination "just because it is there" as the highest point on the range and because of its unique flora.

Fig. 8 The Teviot Swamp — a large wetland situated at 1,000m on the Lammerlaw Uplands — covers about 200ha and is the collecting basin for the much wider area which forms the headwaters of the Teviot River drainage system. Its vegetation and ecology have been the subject of national and international scientific studies and it is truly a conservation icon which, together with its entire catchment, must be protected.

Fig. 9 The main farm track to the Teviot Swamp and beyond would provide an excellent mountain bike route with a 'top of the world' quality and landscape diversity in the form of rolling tussock grasslands interspersed with wetlands both great and small. The view here is from the Teviot Swamp at about 1,000m, looking back towards Beaumont.

Fig. 10 Looking down to the Canadian Flats from the 'Hydro Road'. The lack of public access to the uplands of Beaumont is a problem which needs to be resolved. The 'Hydro Road' passes through the

northern part of Beaumont station from the Canadian Flats to Lake Onslow but is controlled by locked gates, and part of the route passes through private property on Stonehenge.

Fig. 11 The only secure public access is from Te Papanui Conservation Park, and this is only seasonal. This access leads to the Lammerlaw Range and thence to the Teviot Swamp. What is then required is to be able to exit Beaumont via another route. A possibility might be to use the main farm track between the Talla and Fruid Burns, especially if a diversion could be constructed to avoid intrusion of privacy at the homestead.

Fig. 12 The Red Swamp is a wetland similar to, but smaller than the Teviot Swamp, situated at about the same altitude, but which drains into the Taieri River system. It contributes to the landscape diversity in the vicinity of Davidsons Top and the rolling Lammerlaw uplands.

Fig. 13 The Lammerlaw upland might be described as a rather repetitive landscape of interlocking, gentle tussock ridges and equally gentle swales, often occupied by small wetland features sometimes known as gully-head bogs or mires. Although repetitive, this whole striking landscape resembles a gently crumpled velvet bedspread which is best seen, and photographed, in low-angle early morning or evening light.

Fig. 14 Scattered snow tussocks and interspersed sub-alpine plants provide interest for botanists, both amateur and professional, with interests in passive as well as active recreational pursuits. The summit Lammerlaw Top is one place where sub-alpine plants such as bog pine (*Halocarpus*) and *Drachophyllum* can be found.

INTRODUCTION

This report has been prepared following the Early Warning Meeting in September 2009 at which the properties entering the tenure review process in 2009 were introduced. An inspection of the property was carried out by the author of this report in January 2010, with the kind permission and co-operation of the runholders, Alan and Richard Hore. This report is based on that inspection and other material listed below. The report is offered as a contribution to the statutory consultation process undertaken by the Department of Conservation.

The purpose of the report is to identify those features, resources and characteristics of this pastoral lease property which are relevant to tenure review and are important from a recreation and conservation perspective. The report will include an examination of the key issues and why they are considered important. The rationale underlying decisions related to the Crown Pastoral Land Act, future land tenure, protection of natural and historic values, and public access will be discussed. The final section of the report will deal with these issues and the recommended outcomes for the tenure review of Beaumont Station from a recreation and conservation perspective.

Beaumont Station (Po 362) is a large pastoral lease of about 21,000ha straddling the Lammerlaw Range with the homestead situated at about 400m in the Clutha valley above the Millennium Track from Millers Flat to Beaumont (Fig. 1). It adjoins Avenal Station to the north-west and Te Papanui Conservation Park and Castle Dent to the south and east and stretches some 20km (as the crow flies) away to Lake Onslow in the north west corner (Fig. 2). This report focuses on those features of Beaumont which are important for public recreational interests. It should be noted that while some of this interest focuses on access (mainly across the property to the Lammerlaws, the Te Papanui Conservation Park and beyond), the natural, landscape and historic values and of the place have a fundamental impact on the recreational value of the property and greatly influence the quality of recreational experience enjoyed. It is for this reason that reference is made to these values in this report. The inherent natural values are outstanding on Beaumont Station with features such as the Teviot Swamp, Fortification Creek, and MacKays Creek being of national and international ecological significance. No less than 4 Recommended Areas for Protection (RAPs) were recognised during the Protected Natural Area Programme (PNAP) survey.

The landscape of the eastern face of the Lammerlaw Range is prominent for travellers on State Highway 8 between Lawrence and Roxburgh. Most of the downland and front country has been developed as pastureland by scrub clearance and oversowing and topdressing over a number of years (Fig.3). The higher country, above about 800m, includes areas of high natural and landscape value and which are part of the wider experience of travelling into the heart of Central Otago and exploring its block mountain ranges (Fig. 4).

Elsewhere, the transition from developed farmland to land with significant inherent values often occurs at about 1,000m above sea level but in this case it appears to be lower than usual. Oversowing and topdressing (OSTD) on Beaumont has mostly been below about 750m where the greatest response to pasture improvement occurs. Sub-alpine wetland features (gully-head bogs, Fig. 5) start to appear at about 800m and both these observations are probably related to geographic/climatic factors such as south facing aspect and little interruption to prevailing winds from the Antarctic. These sub-alpine wetland features will be discussed later in the section on significant inherent values, but meantime they will be referred to as 'gully-head bogs'. Most of the developed country, situated on soils of Land Use Capability (LUC) Class VI or better, are situated on the slopes up to about 750m.

The higher country, occupying more than half of the property lies above about 800m (Fig. 6) and is characterised by High Country Yellow Brown Earth soils which have been classified in Land Use Capability (LUC) Class VIIc and VIIe. This upland and high country has high conservation and recreation values which suggest that it should be considered as a potential new Conservation Area,

eventually to be added to Te Papanui Conservation Park which it adjoins along some 15km of its eastern boundary from the Canadian Flats in the north to Castle Dent above the Beaumont township. The upland area also has important ecosystem service values (such as water harvesting) which are likely to become increasingly important in future as world wide climatic changes occur.

METHODS OF SURVEY AND ASSESSMENT

This report is based on the author's January 2010 field inspection and, in part on information gathered from other sources. These include studies of topographical and LUC maps, consultation with recreational user groups and a knowledge of the landscapes seen from the State Highway 8, the Lammerlaw and Lammermoor Ranges and Te Papanui Conservation Park.

A study of "Outdoor Recreation in Otago" was undertaken by Mason (1988) and published by FMC. Reference is made to this Recreation Plan for Otago below. The Conservation Management Strategy for Otago (1998) and a Botanical Report (Johnson and Lee, 1988) have also been used as sources of reference.

GENERAL DESCRIPTION OF BEAUMONT STATION

Beaumont Station pastoral lease (Po 362) covers some 21,000ha and straddles the Lammerlaw Range, extending from the Clutha River in the south to Lake Onslow and the Canadian Flats along the Taieri River in the north (Figs. 2 and 10).

The Lammerlaw Range is not a prominent feature but is very significant geographically as it forms the drainage divide between the Clutha River system to the south and west and the Taieri drainage to the east and north.

The Lammerlaw and Lammermoor Ranges are part of a block mountain complex which also includes the Rock and Pillar Range. This block mountain range complex has been described by Mason (1988) as follows:- *"The Lammermoor Range is a distinct but lower southern extension of the Rock and Pillar block mountain, rising to an average of 1100 m along its crest. The range crest is over 10 km broad, gentle, and intricately dissected by small valley systems. Steep faces only occur on the eastern escarpment above Deep Stream and in the upper Taieri Gorge. The Lammermoors about the Lammerlaws at right angles at their highest point (1158 m), the latter extending eastwards into the Waipori catchment, and north-westwards to gradually descend into the vast Teviot uplands. The Lammerlaw range crest tends to be more narrow and undulating than the Lammermoor crest. The Taieri River [which forms part of the eastern boundary of Beaumont] begins its circuitous course from the upper slopes of the Lammerlaws via an inland route through the Maniototo, around the northern end of the Rock and Pillars, and finally southwards through the Strath Taieri and Taieri Gorge to the sea. Relatively short, steep catchments drain the southern flanks of the Lammerlaws into the Clutha and Waipori Valleys"*.

Beaumont Station itself is bounded by rivers around most of its boundaries. The Taieri River lies to the east and the Clutha to the south, while the Fruid Burn and the South Branch of the Teviot River mark much of the western boundary. The pastoral lease land is complemented by a large area of freehold which runs from the vicinity of the homestead at about 400m, down to the Clutha River at less than 100m above sea level.

The highest points on the station, Lammerlaw Top (Fig. 7 at 1,210m) and Davidsons Top (1127m) could be destinations for recreation in summer or winter, while Teviot Swamp (Fig. 8), covering some 200ha at 1000m and Red Swamp at 950m are conservation icons. Lake Onslow (Fig. 2) with its associated wetlands in the upper Teviot River and Fortification Creek are important for their significant inherent wetland values. Lake Onslow, with its current lake level at 684m having been artificially raised 3 times for irrigation and power generation is also a mecca for fishing.

The lower country around the homestead and up to about 700m is dominated by Lowland Yellow Brown Earth (YBE) Tuapeka soils and Upland YBE Wehenga and Pukekoma soils which have been classified in LUC Class VI. Such soils are defined as being of medium suitability for pastoral farming and should therefore be capable of supporting ecologically sustainable pastoral production so long as nutrient removals in animal products are replenished with regular maintenance fertilizer. Most of this land has been cleared of scrub and developed over a number of years (Figs 1 and 3) and so disposal as freehold land would be appropriate.

There is a rapid transition (Fig. 6) between about 700 to 800m to less modified country with increasing tussock cover with gradually increasing altitude. At about 800m on the divide between the Fruid and Talla Burns, small wetlands with *Halocarpus* or bog pine (gully-head bogs) appear on the margin of the Talla Burn catchment (Fig. 5). These are associated with increasing dominance of High Country YBE Teviot and Teviot Hill soils classified LUC Class VIIe and VIIc. Such soils have severe limitations for pastoral use and only small response to applied fertilizer because of climatic limitations on growth potential. This means that it is usually not economic to replenish the nutrients removed in animal products, so there are real problems in managing the land in a way that promotes ecological sustainability, as required by the Crown Pastoral Land Act 1998.

There is a large area (in excess of 10,000ha) on the Lammerlaw Range and northwards to Davidsons Top and beyond which are dominated by Teviot High Country YBE soils classified LUC Class VII. This area averages about 1,000m above sea level and has serious limitations for pastoral use, but very high landscape and significant inherent values. It can also provide important ecosystem services (water harvesting) and therefore has important economic value. The area includes the Teviot Swamp (Fig. 8) and Red Swamp as well as wetlands associated with Lake Onslow (Fig. 2) and its contributing streams such as Fortification Creek and the South Branch of the Teviot River. These important resources have been recognised nationally by the PNAP survey and internationally for their scientific importance. These wetlands should be protected for their iconic conservation values as well as their importance for water harvesting and storage.

There is potentially good access through the property heading north from the vicinity of the homestead. A good track climbs the ridge between the Fruid and Talla Burns, reaching about 1,000m at the Teviot Swamp. Just south of Teviot Swamp a side track heads over Lammerlaw Top and along the Lammerlaw Range to the western boundary of Te Papanui Conservation Park. The main track continues northwards to Davidsons Top and Red Swamp before dividing into two. Both branches lead to the 'Hydro Road' servicing the power lines from Roxburgh to Rocklands. Although there is a locked gate, the 'Hydro Road' connects with the public Lake Onslow Road and could be an important recreational access to Beaumont from the north. The 'Hydro Road' also leads to the Canadian Flats in the upper Taieri. None of these tracks are currently available to the public without permission.

An important issue in this tenure review will be establishing secure public access to the recreational and conservation values of the Beaumont high country on the Lammerlaws and the Teviot Swamp.

RECREATIONAL ACTIVITIES AND POTENTIAL

Despite its extensive upland area, relatively little recreational use has been made of Beaumont Station in the past. In part this has been because of pastoral lease tenure and the need to obtain permission for access. With the property under tenure review, that situation may be changing in the future and it is therefore appropriate to consider both existing and potential recreational use of Beaumont.

Beaumont has been host to occasional commercial 4WD trips and fundraising 4WD excursions. The Otago Goldfields Cavalcades have also been granted permission to use Beaumont Station in the past.

Private use has been very limited and only a few cross-country ski parties have used the Lammerlaw Range.

Cross-country skiing tends to be concentrated on the Rock and Pillar Range, with longer traverses sometimes enjoyed in Te Papanui Conservation Park and on Lammerlaw and Lammermoor Ranges, but such parties need to be fully self contained and able to navigate in white-out conditions.

Increasing popularity of mountain bike recreation is widening the scope of recreational opportunities where longer journeys on foot were impractical for day trips. The extensive track network and wide vistas on Beaumont are likely to become more popular for mountain bike travel or possibly horse trekking if access is provided through tenure review. The main farm track to the Teviot Swamp and beyond would provide an excellent mountain bike route with a 'top of the world' quality and landscape diversity in the form of rolling tussock grasslands interspersed with wetlands both great and small (Fig. 9).

The lower parts of Beaumont (below 400m at the homestead) and down to the Clutha River at about 100m is largely freehold. The higher country, extending from The Beaumont Station Road to Teviot Swamp and beyond has a track network with many features to attract recreational users. This network extends to Lammerlaw Top (Fig. 7) at 1,200m and northwards to the 'Hydro Road' from Canadian Flats beside the Taieri River (Fig. 10) to Lake Onslow (Fig. 2). There is also a track from the western boundary of Te Papanui Conservation Park (Fig. 11) to link with the network described above near Lammerlaw Top. Highlights of travel over this track network would include exploration of the natural and scenic attractions of Teviot Swamp (Fig. 8), Red Swamp (Fig. 12) and Lake Onslow (Fig. 2).

Thus, there is a range of opportunities for active recreation (mountain bike riding, tramping and skiing) but the inherent natural values also provide subjects for more passive recreation such as photography, painting, botanical study and bird watching.

It is understood that there is a musterer's hut in the vicinity of the airstrip in the catchment of the Red Swamp Creek which was not visited on our inspection. This hut could be very valuable for recreational users of areas which could become new conservation land because of the size of this property and the distances to be travelled to find any kind of shelter in winter, and in the event of adverse weather at other times of the year. It might also be a base for parties wishing to explore or study the natural values of those more remote parts of Beaumont beyond Davidsons Top and the Red Swamp.

Access to the track network on Beaumont could be gained from existing public access at Te Papanui Conservation Park and from the Lake Onslow Road, but only with permission. Note however, that there is currently a locked gate on the 'Hydro Road' preventing unauthorized access to Beaumont Station lan Access from the south would have to use the main farm access track starting near the homestead, thereby causing an intrusion into the landowner's privacy at the homestead. It may be possible to create a short diversion, perhaps starting near the Fruid Burn bridge to divert recreational users away from the homestead. This issue will be discussed more fully under the section headed "Access Requirements".

SIGNIFICANT INHERENT VALUES AND THEIR IMPORTANCE FOR RECREATION

This report focuses on those features of Beaumont Station which are important for public recreational interests. While some of this interest focuses on access, the natural and historic values, as well as the landscapes of the areas concerned, greatly influence the quality of recreational experience enjoyed. It is for this reason that significant inherent natural values, landscape and historical values, access and recreational use are all considered together in this section of the Report.

There is no doubt that the ecological and scenic highlights of Beaumont Station are the wetlands associated with the high uplands on the Lammerlaw plateau surface. Most prominent among these is the internationally recognised Teviot Swamp (Fig 8) covering some 200ha of wetland and bog at about

1,000m, with associated peat-filled drainage channels and mires which eventually drain into the Teviot and Clutha River system. Sub-alpine wetland features have been variously called patterned mires, gully-head mires, gully-head ribbon fens, terrace tarns, bog pool systems and even string bogs by analogy with similar features in the arctic. They are referred to here as gully-head bogs. The Red Swamp (Fig. 12) is a feature similar to, but smaller than the Teviot Swamp situated at about the same altitude, but which drains into the Taieri River system. Fortification Creek drains into Lake Onslow (Fig. 2) at about 700m and also includes an extensive wetland area in the upper Teviot catchment, while the upper catchment of MacKays Creek also contains many gully-head bogs. A number of scientific publications describe the botanical detail of these wetlands. These Reports include Johnson (1986), Johnson and Lee (1988) and Rapson et al (2006).

The PNAP surveys identified four RAPs on Beaumont. These are important for inclusion within any proposed new conservation area and are briefly described as follows:-

RAP.1 Fortification Creek

“This area is significant for its meandering streams and ox-bow lakes. The lakes and ponds have been created by the streams changing course. There is a relatively large area of patterned ground between the Teviot River and Fortification Creek. *Chionochloa rubra* is the dominant canopy species on the valley floor, giving the landscape its distinctive character. This is one of the last relatively uniform areas of red tussock combined with meandering streams remaining in the Waipori Ecological District. It is also valuable habitat for water fowl.”

RAP.2 Teviot and Mackays

“Teviot Swamp and the headwaters of Mackays Stream have similar landforms and both drain off the north and east slopes of Lammerlaw Top. The ridges and spurs of Lammerlaw top have a repetitive pattern created in part by the angle of dip in the schist bedrock and by the action of cold climate processes leading to snowbank formation. Bog pools are common on the sphagnum flats of the Teviot Swamp and the streams at the head of the Teviot and Mackays catchments have a step-like longitudinal profile with miniature waterfalls alternating with shallow sphagnum basins. The pools are variable in dimension; they occur in steep steps with high downstream banks and in networks with string-like barriers between each pool. The vegetation has two components – *Chionochloa rigida* on the side slopes while *Sphagnum cristatum* dominates the peat accumulating wetlands. *Oreobolus* and *Drachophyllum* give the wetlands a distinctive colour. The snowbank communities are a major part of the ecological character of the RAP. Banded Dottrels and Oyster Catchers have been seen on the bogs. This RAP represents some of the best alpine wetland vegetation in the highest westerly section of the Waipori Ecological District.”

RAP.4 Lammermoor

Most of this large RAP (3300ha) is situated within the Te Papanui Conservation Park and will not be described here.

RAP.8 Taieri Rapids

“The Taieri Rapids gorge is formed where the river leaves the headwaters on the upland plateau and cuts down steeply to the plains below to create a dramatic landform. Within the gorge, waterfalls are visually and audibly impressive. The river is bound by rock cliffs with the strata dipping in a steep easterly direction. The strata outcrop in long spurs running from top to bottom of the slope. The chutes between the spurs are like blockfields which run in long tongues from the top of the side slopes to the edge of the river. Vegetation in the gorge is characterised by two shrubland communities with some modified grassland. One of the shrubland communities consists of small-leaved divaricating shrubs including *Coprosma* and *Corokia*, together with *Melicytus* and *Carmichaelia*. The other community is associated with rubblefields and rock outcrops in very dry areas. The gorge has the most dramatic rocky cliffs and large rock and boulder fields in the District. It is worthy of protection because of its landform attributes alone. The gorge also has high entomological value with many moth species of restricted distribution present. It is also home to a number of birds including the NZ falcon.”

The Lammerlaw Range forms the divide between the Clutha and Taieri river systems. Within Beaumont Station there are some notable high points on the Lammerlaw Range (Fig. 7) which although not very prominent, nevertheless serve as landmarks and features of note in an otherwise rather repetitive landscape of gently rolling tussock ridges and swales, often occupied by gully-head bogs (Fig. 13). This whole striking landscape resembles a gently crumpled velvet bedspread which is best seen, and photographed, in low-angle early morning or evening light. The high points which will no doubt become destinations for recreational visitors include Davidsons Top, Lammerlaw Top and Lammerlaw Rock which, although of lesser height than Lammerlaw Top, can be seen from most corners of Beaumont Station.

Lammerlaw Top is interesting for a number of reasons. Its Trig is a landmark which can be seen from Te Papanui, and its vegetation is unusual in being the only example of sub-alpine shrubland on Beaumont Station. It is therefore, not only a recreational destination but also a subject for those with more passive interests such as botany and photography (Fig 14).

There is a very extensive area of tall tussock grassland above about 800m. The southern limit of this grassland is significantly modified by pastoral farming but the degree of modification diminishes with increasing altitude towards the Lammerlaws (Fig. 6). Some of the best tussocklands are situated on the upper, south facing slopes of the Lammerlaws and extend northwards to Davidsons Top and beyond. There are a few small areas of sub-alpine dwarf shrubland and cushion fields as on Lammerlaw Top (Fig. 7) which add significantly to biodiversity in the landscape. Further north the stature of the tussock grassland seems to diminish, perhaps related to dryer or harsher inland conditions or to past management related to grazing and burning.

Although the stature of the tussock grasslands diminishes north of the Red Swamp and Davidsons Top, there are still good reasons to consider this area worthy of return to Crown control. Firstly, the area is most important for its ecosystem services, in particular water harvesting. It has already been noted that the percent yield from incoming rainfall is remarkably high in this area. This is particularly important as water harvesting in this area contributes to both the Taieri and the Teviot river systems. The water in both these river systems is used for irrigation, power generation and water supply. Furthermore, with climate change, water supply is likely to become an increasingly important issue into the future. Secondly, the sheer remoteness of the area is part of its significant inherent value and as such, this area would be a valuable, largely unmodified, addition to Te Papanui Conservation Park. And thirdly, like all of the upland areas of Beaumont Station, it has very high landscape values related to its remoteness, sheer size of the unmodified area and wild character of such an expanse of tussock grassland.

The extensive rolling tussocklands are occasionally interrupted by features which are obvious and distinctive – these include gully-head bogs (Figs 5 and 13) and an historic gorse fenceline. The upper catchment of the Talla Burn on the south facing slopes of the Lammerlaws include small gully-head bogs which are particularly striking when they are populated by bog pine (*Halocarpus*) shrubs (Fig. 5). The historic gorse fence is first seen near the western boundary of Beaumont (Fig 15) at about 800m where it runs along a modern farm fence before descending into a gully and traversing east across the property. It finally runs across the eastern boundary into Castle Dent at about the same altitude. Gorse fences were planted in the early days of pastoralism in the 19th Century when fencing materials were unobtainable or impossibly expensive and when it is reputed that a pocket full of gorse seed was worth more than a pocket full of gold.

There are two areas which were not looked at closely during our inspection of Beaumont – the shore of Lake Onslow and the Canadian Flats beside the Taieri River. Even distant views (Figs 2 and 10) indicate that significant conservation values are likely to be present. It is therefore strongly recommended that both these areas should be carefully assessed for the presence of significant inherent values before decisions are made about future land designation and status.

It is concluded that on such a large property like Beaumont there is a wide range of landscape, natural and historic features which greatly add to the recreational value of the property and provide points of interest for recreational visitors. All the features and values described above deserve to be included in Conservation Areas accessible to the general public.

AREAS TO BE PROTECTED

The discussion above suggests that there is a very large area of land above about 900m on Beaumont Station with significant landscape, natural, and ecosystem service values which deserve protection in terms of the CPL Act 1998. The nature of those landscape and other natural inherent values has been discussed in the previous section and the fact that the front faces and skyline are important features of the Clutha River Valley and landscape seen from the Millennium Track and State Highway 8 was referred to in the introduction.

The most obvious individual features demanding protection are the swamps, particularly Teviot Swamp, Red Swamp and Fortification Creek wetlands draining into Lake Onslow, which were recognised in the PNAP survey. These are obvious candidates for protection by return to full Crown ownership and control because of the significant inherent values which have been well documented in the scientific literature and in the PNAP Report for the Waipori District.

Significant inherent values of the tussock grasslands and the remote rolling Lammerlaw mountain landscapes occur widely over the northern half of Beaumont Station. The lack of prominent geographic boundaries makes it difficult to determine where the boundary of any new Conservation Area should be defined. As well as the significant inherent values of wetland, tussock grassland and remote mountain landscape, other considerations include protection of ecosystems for water harvesting, for their recreational values and for future addition to Te Papanui Conservation Park.

One of the objectives of tenure review is "*to promote the management of reviewable land in a way that is ecologically sustainable*". Two of the factors which influence whether this is likely to be achieved are the nature of the land resource, and the extent to which, if at all, nutrients removed in animal products are replenished through fertiliser use. It was noted above that all the land above about 800m is classified LUC Class VIIc or VIIe which means that it has limitations related to climatic factors or erosion hazards. Class VII land has severe limitations for pastoral production. Climatic limitations on pasture growth are generally accepted as the reason why fertiliser use is not economically justified at this altitude. These factors all combine to suggest that continued pastoral use will not promote ecological sustainability.

On the other hand the landscape values of the uplands, their important and internationally recognised wetlands which have both significant inherent conservation value and ecosystem service values, must be recognised (Fig. 16). Water harvesting is likely to become increasingly important in the future and is particularly on Beaumont because both the Teviot and Taieri watersheds are important sources of water for irrigation, power generation and town water supply.

It is concluded that for reasons related to the significant inherent values of the land, and because it is unlikely that this land could be managed in a way that would promote ecological sustainability, it is recommended that this area should be returned to full Crown ownership and control to be managed for conservation purposes. It is also recommended that if this designation is accepted, then the new Conservation Area should be considered for addition to Te Papanui Conservation Park.

Based on all these considerations, a separation is recommended of the uplands from the developed lower country at about 850 to 900m. The proposed new Conservation Area would therefore include the upper Talla Burn catchment, much of the upper catchment in the northern and eastern branches of the Talla Burn (below Lammerlaw Top), and the northern tributaries of Moffats Stream originating below Carsons

Rock. It would also include all that land to the north of the Lammerlaw Range. The boundary between freehold and new conservation land might start at about Map Reference 260 G44 447.995 on the western boundary of Beaumont station, run around the head of the Talla Burn catchment at about 850m, and head south-east at about 850m or 900m (below Carsons Rock) to the eastern boundary of Beaumont at approximately G44 500.930.

This would leave the lower altitude gully-head bogs in the Talla Burn catchment within the area to be considered for freehold disposal. Because of the significant inherent value of these bogs, with their shrubland content of bog pine, and their unique ecological situation at such a low altitude for a sub-alpine community, it is recommended that these gully-head bogs should be protected under a conservation covenant, within the probable freehold area. That covenant should be subject to conditions which would include prohibition of cattle grazing, burning, and pasture improvement or scrub clearance. This should be accompanied by a stock limitation no greater than 1 SU per ha per annum, or preferably less, together with a rigorous programme of monitoring to ensure that no adverse effects were occurring. In the event that adverse effects were reported, there should be provision for mandatory lowering of the stocking rate.

ACCESS REQUIREMENTS

The CPL Act 1998 requires "*the securing of public access to and enjoyment of reviewable land*", and this is required both to the new Conservation Area(s) and across Beaumont land. Access will be required to allow the public to visit and enjoy the outstanding conservation values described above and which have been recommended as the core of a large new Conservation Area. It is not only the opportunity to visit new conservation areas which will be required, but also the ability to enjoy some of the many recreation opportunities (both active and passive) which Beaumont has to offer.

There are at least four possible entrances onto Beaumont, none of which are without problems. The possible entrances are as follows:-

- (a) From the Lake Onslow Road: Public access would be needed across Stonehenge land and through a locked gate on the 'Hydro Road'. This would probably only be available by seeking permission from the owner of Stonehenge.
- (b) From Canadian Flat: Public access is available to Canadian Flat along an easement from Patearoa and to the start of the 'Pylon Road' across Rocklands Station – access would be needed along both the 'Pylon Road' and the 'Hydro Road' and again such access might only be available by seeking permission.
- (c) From Te Papanui: Seasonal public access is available through Te Papanui Conservation Park to the Lammerlaw Range on Beaumont land. We understand that the Te Papanui/Beaumont gate is locked in winter and even if access to Beaumont was secure, the public would need to be able to exit from Beaumont by another route because the place is so vast.
- (d) Up the Fruid/Talla Burn ridge: This is the main farm access track from the homestead to the northern end of the property – as such it would provide ideal public access to Teviot Swamp, Davidsons Top and beyond. However, public use would involve intrusion into private space near the homestead unless an alternative track was created, perhaps starting east of the Fruid Burn bridge, and joining the existing track out of sight from the homestead. A short easement across new Beaumont freehold would be required for this alternative access.

It is clear that neither of the northern access routes (a) or (b) will satisfy the CPL Act requirement for secure public access. It is therefore important that strenuous efforts are made to secure public access via the southern access routes.

Clearly there is no easy answer to the provision of secure public access on this property. It is also clear that, because of the long distances involved, some form of vehicle access to conservation areas is required. It is recommended that at least the two southern access routes, (c) and (d) above (to provide

both entry and exit points), should be negotiated out of the alternatives listed above. Appropriate easements for public foot, horse and non-motorised vehicle use will be the minimum requirements to satisfy the CPL Act.

OTAGO CONSERVATION MANAGEMENT STRATEGY

"Lammerlaw – Upper Taieri" was identified as 'Special Place' # 16 in the Conservation Management Strategy (CMS) for Otago published in 1998. The description of the Lammerlaw Taieri Special Place included the following:-

"Diversity in these [Lammerlaw] tussocklands is extremely high, from fringe bog systems with *Halocarpus bidwillii* and *Drosera acturi*, to snow bank communities with *Parahebe trifida*, to shrubland communities of *Hebe* spp., *Coprosma* spp., along with *Podocarpus hallii* and *Griselinia littoralis*".

The high plateau, and plateau rise are distinctive landscape units that have high landscape conservation value. These areas are distinctive natural areas that are highly sensitive to change.

Lammerlaw Tops provide a remote setting for recreation in an extensive tussock grassland setting not far from Dunedin. This area presents a navigational challenge in the summer and a serious test of mountaineering skills in the winter. A variety of recreation opportunities are available for the keen enthusiast from cross country skiing, mountain biking and tramping to small game and pig hunting.

Catchments of the area have hydrological importance for protection of the Dunedin City water supply and hence the necessity for retention and protection of the tussock cover. Research has shown that the high water yield from these upland areas is enhanced by the indigenous snow tussock cover and reduced with a pine forest cover."

The Objectives for the Lammermoor - Upper Taieri Special Place include:

"To protect the high conservation, landscape, hydrological and historic values of the uplands while allowing and providing for appropriate recreational use".

The CMS states that this will be implemented by (inter alia) *"Endeavour to negotiate with landowners through a variety of mechanisms including pastoral lease tenure review to provide protection for important landscape, nature conservation, recreational and water supply areas"* and..... *"Improve recreational facilities and access points".*

These statements are clearly important, and relevant to the current tenure review of Beaumont Station. It is interesting to note that the CMS set its priority in 1998 for the Lammerlaw – Upper Taieri Special Place: *"Protection, negotiation and advocacy in relation to the range crest tussock grasslands and scroll plain wetland will be priorities in this Special Place".*

The tenure review of Beaumont Station now presents a great opportunity to advance the declared objective and satisfy the priority stated in the CMS.

ISSUES AND RECOMMENDATIONS

In this section, the resources described above, and the issues and options for their future management and allocation between freehold disposal and public interests are discussed in relation to the Crown Pastoral Land Act, 1998. The issues and recommendations are presented in sections related to Section 24 of the Act as follows:-

S24 (a) (i) To promote the management of reviewable land in a way that is ecologically sustainable

S24 (b) (i) To enable the protection of significant inherent values of reviewable land by the creation of protective mechanisms

S24 (b) (ii) To enable the protection of significant inherent values of reviewable land (preferably) by the restoration of the land concerned to full Crown ownership and control

S24 (c) (i) The securing of public access to and enjoyment of reviewable land [including recreation] and

S24 (c) (ii) The freehold disposal of reviewable land

S24 (a) (i) To promote the management of reviewable land in a way that is ecologically sustainable

The soils and the Land Use Capability (LUC) Classification of Beaumont Station have been considered carefully. Arguments have been presented as to why LUC Class VIIe and ClassVIIc land cannot be managed in a way that is ecologically sustainable without the replenishment of nutrient reserves depleted by pastoral production and tussock burning.

More than half of the property is situated above 1,000m and is characterised by land in LUC Class VII and is therefore not capable of being managed "*in a way that is ecologically sustainable*". This area extends northwards from a line which approximately follows the 900m contour parallel to and along the south face of the Lammerlaw Range (roughly a line from Lammerlaw Rock to Carsons Rock).

This area extends up to Lake Onslow in the NW and Canadian Flat in the NE. In both these areas there land of LUC Class VI to which the sustainability argument does not apply. These areas were not inspected but are believed to contain values worthy of protection, and would need careful inspection and consideration before future land allocation is decided. Given the above qualifications about these two areas, there is only one part of Beaumont Station which can be recommended as being capable of being managed "*in a way that is ecologically sustainable*". That is all that part of Beaumont Station to the south and west of the 900m contour along the south face of the Lammerlaw Range. This would include most of the catchments of the Talla Burn and Moffats Stream. This area would therefore appear to be suitable for freehold disposal.

S24 (b) (i) To enable the protection of significant inherent values of reviewable land by the creation of protective mechanisms

Environmental NGOs generally agree with the preference expressed in the CPL Act for "*protection of significant inherent values of reviewable land (preferably) by the restoration of the land concerned to full Crown ownership and control.*" However, there are some small discrete areas which may be suitable for protection under conservation covenant ("*protective mechanism*").

The distinctive gully-head bogs in the upper Talla Burn catchment, described earlier in this report, are situated at about 800m in the area discussed above as potentially suitable for freehold disposal. In order that their significant inherent value is recognised, these bogs are recommended for protection under Conservation Covenant with conditions to exclude grazing, and prohibit burning and spraying.

S24 (b) (ii) To enable the protection of significant inherent values of reviewable land (preferably) by the restoration of the land concerned to full Crown ownership and control

The most obvious significant inherent values on Beaumont Station are those recognised by the PNA Programme and recommended for protection as RAPs. These include the Teviot Swamp, MacKays Creek, Fortification Creek and the Taieri Rapids. There are also extensive areas of tussock grasslands which are particularly important for water harvesting. All these areas with important and significant inherent values lie within the area above classified LUC Class VII and deemed unsuitable for ecologically sustainable pastoral production.

The entire area north of the 900m contour across the southern slopes of the Lammerlaw Range is worthy of consideration for protection by "*restoration of the land concerned to full Crown ownership and control*". The reasons for this are not confined to the significant inherent natural and landscape values contained therein, but also include the value of the area for water harvesting, and potential addition to Te Papanui Conservation Park. The wetlands should be protected for their iconic conservation values as well as their importance for water harvesting and storage.

It is therefore recommended that most of the area north of the 900m contour across the southern slopes of the Lammerlaw Range should be protected by "*restoration of the land concerned to full Crown ownership and control*". The exceptions to this general recommendation are those areas around Lake Onslow and the Canadian Flats which have not been inspected, and which require further investigation before decisions about future land tenure are made.

S24 (c) (i) The securing of public access to and enjoyment of reviewable land [including recreation]

There are four potential access points to the 21,000ha area of Beaumont Station. Only one of these (via Te Papanui) is currently available for public access, and only on a seasonal basis. Proposed new conservation land must be accessible to the general public. Because of the sheer scale and size of this property at least one more public access is essential to satisfy the requirements of the CPL Act.

Problems of public access have been discussed in the "Access Requirements" section of this report. The two northern access points require permission from owners not involved in this tenure review and will therefore remain inaccessible without permission. Only the access from the Beaumont Station Road remains a possibility. The main farm access track running north from Beaumont Station headquarters would provide ideal public access to Teviot Swamp and beyond but it is accepted that use of this track would be an intrusion into landowner privacy.

It is therefore recommended that strenuous efforts be made to negotiate public access over the farm track to Teviot Swamp and beyond, if necessary by developing a short diversion, possibly starting near the Fruid Burn bridge, which would be out of sight from the homestead. Such an easement for public access would be for foot and mountain bike use, with vehicle use of the existing farm track at the landowners' discretion.

S24 (c) (ii) The freehold disposal of reviewable land

Freehold disposal of reviewable land follows as a logical consequence of the identification of those parts of Beaumont Station which have been assessed to be capable of being managed "*in a way that is ecologically sustainable*".

Accordingly, it is recommended that land below about the 900m contour line across the southern slopes of the Lammerlaw Range, and including most of the Talla Burn and Moffats Stream catchments is suitable for disposal as freehold.

Finally it is noted that the Conservation Management Strategy for Otago set out important objectives and priorities for the Special Place "Lammerlaw – Upper Taieri" which includes Beaumont Station. If the recommendations made in this report are adopted and implemented significant progress will be made towards the achievements of those objectives, and eventually contribute to the emerging Te Papanui Conservation Park.

ACKNOWLEDGEMENTS

FMC is grateful for assistance from the runholders Alan and Richard Hore in making the assessment possible. Permission for access and use of farm tracks was freely given and accommodation made

available at the shearers quarters. The site inspection was carried out in January 2010 and FMC, acknowledges positive discussion and helpful advice regarding travel on the property.

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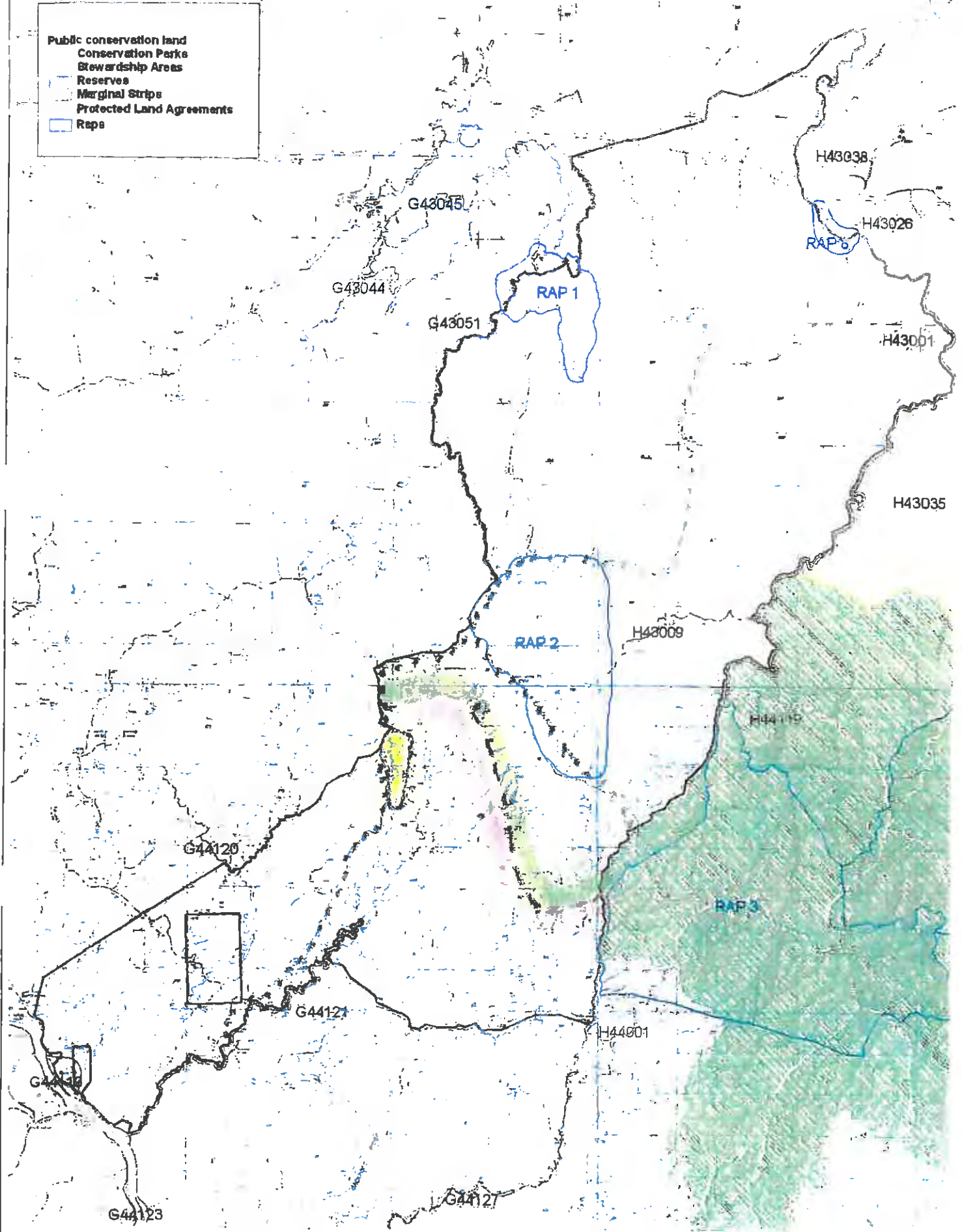
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- Public conservation land
- Conservation Parks
- Stewardship Areas
- Reserves
- Marginal Strips
- Protected Land Agreements
- Raps



Map showing boundary (dashed line) between proposed Conservation Area (green) and Freehold (pink), a proposed Conservation Covenant (yellow wash) and access routes (dotted lines) on Beaumont.



Fig. 1 Beaumont homestead and farm headquarters are situated at about 400m above sea level, and about 300m above the Clutha River between Beaumont and Millers Flat. The main farm buildings are situated among improved pastures developed over the years by scrub clearance and oversowing and topdressing. Some remnants of sprayed scrubland can be seen in this view.

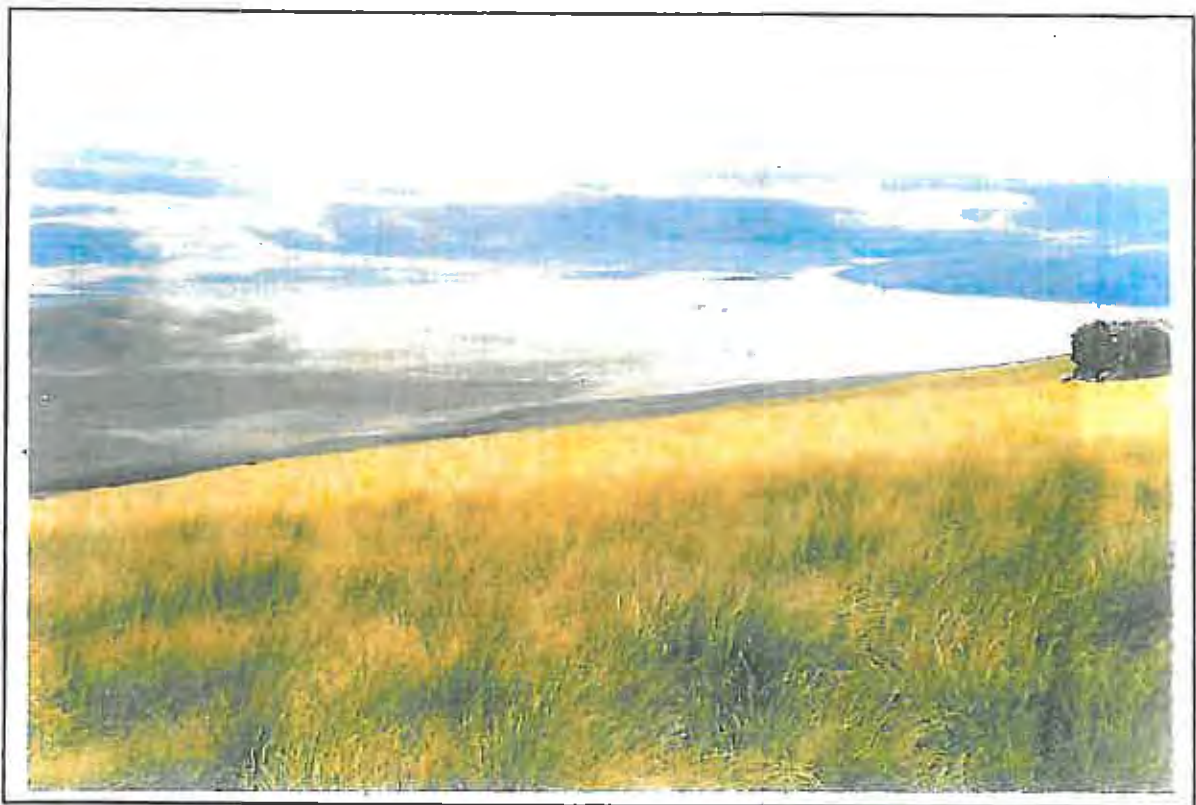


Fig. 2 The property extends over 20,000ha of upland and high country with tussock grasslands rising to 1,200m on Lammerlaw Top and includes extensive wetlands. In the north west corner, its boundary follows the shore of Lake Onslow at almost 700m above sea level. The lake level has been raised three times to provide irrigation water and a source of hydro electric power. Water harvesting is an important issue in this tenure review.



Fig. 3 Much of the lower country on Beaumont, up to about 800m, has been developed into improved pastures. The best of these, at lower altitudes, are intensively farmed with sheep and cattle grazing. Some evidence of former Manuka/Kanuka shrubland can be seen as remnant patches in some gullies.

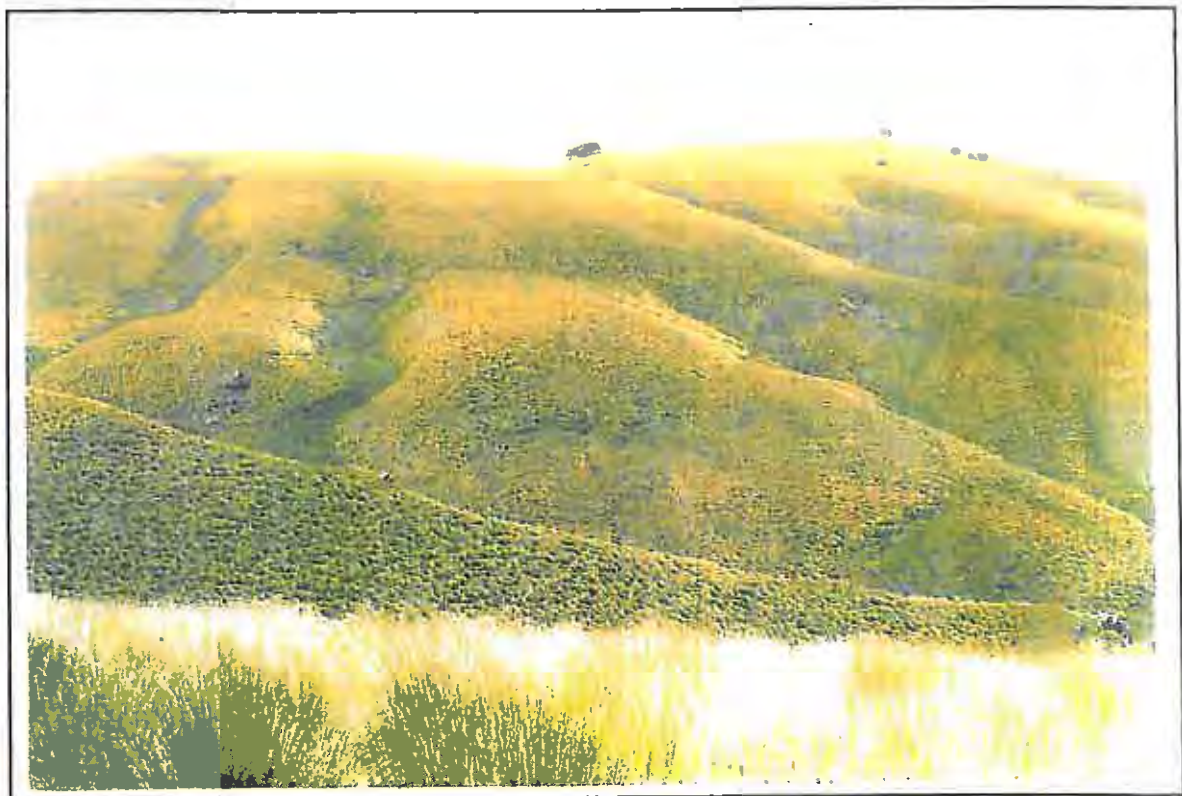


Fig. 4 The higher country, above about 800m, includes areas of high natural and landscape value which contribute to the wider experience of travelling into the heart of Central Otago and exploring its block mountain ranges. Although not currently easily accessible by the public, there is a case for these resources to be returned to Crown control for the public to enjoy. Lammerlaw Rock is a notable feature of these uplands.



Fig. 5 Wetland features such as small gully-head bogs are more usual above about 1,000m but on Beaumont start to appear at about 800m. This may be related to geographic/climatic factors such as south facing aspect and prevailing winds from the Antarctic. These bogs, sometimes with bog pine, are significant ecological features which are important for the vegetative and landscape diversity of the Lammerlaw uplands.

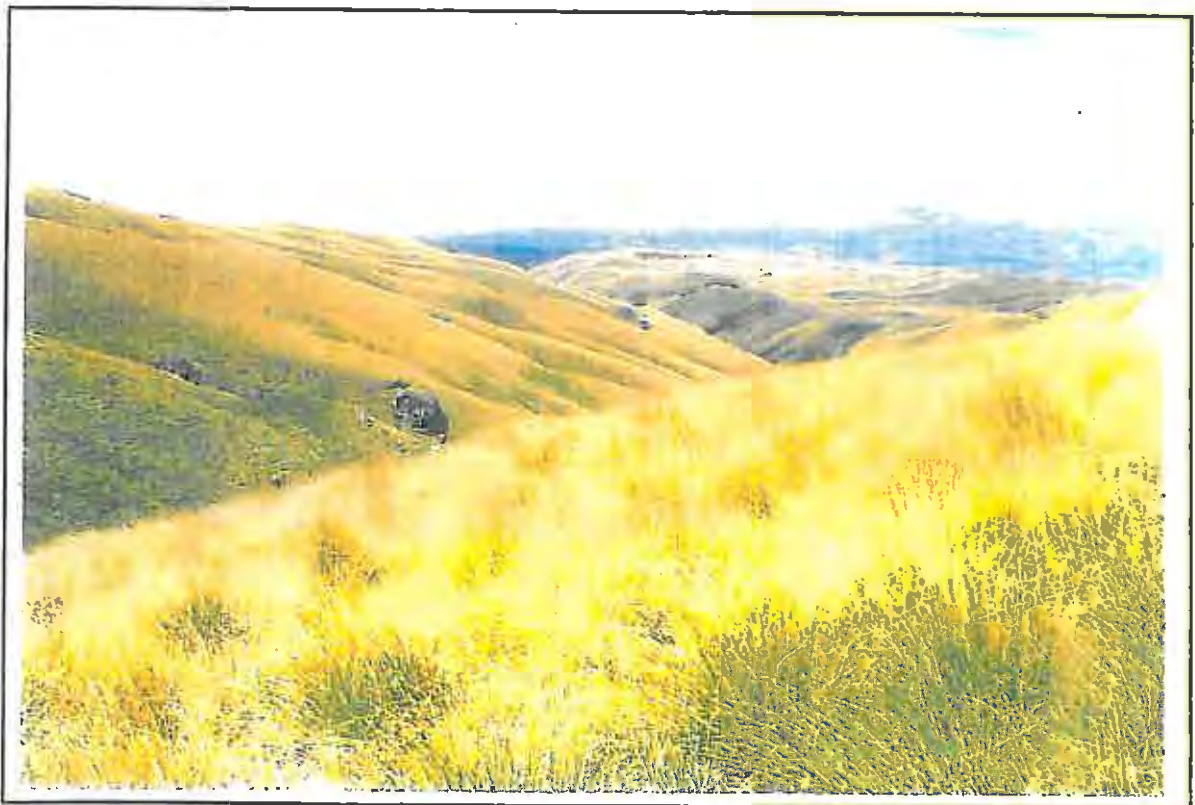


Fig. 6 The transition from developed pasture to less modified tussock grassland is well seen in the upper catchment of the Talla Burn. Improved pastures can be seen in the distance at about 600m above sea level, while the tussock grassland in the foreground at about 800m is little modified. Even at this altitude the tussock grassland is in good condition and is worthy of protection by return to Crown control.



Fig. 7 The Lammerlaw Range is not a prominent feature but it does reach over 1,200m at its highest point on Lammerlaw Top. It is the only place on Beaumont Station where sub-alpine scrub occurs, reflecting the severity of exposure on these ranges. It is likely to become a recreational destination “just because it is there” as the highest point on the range and because of its unique flora.

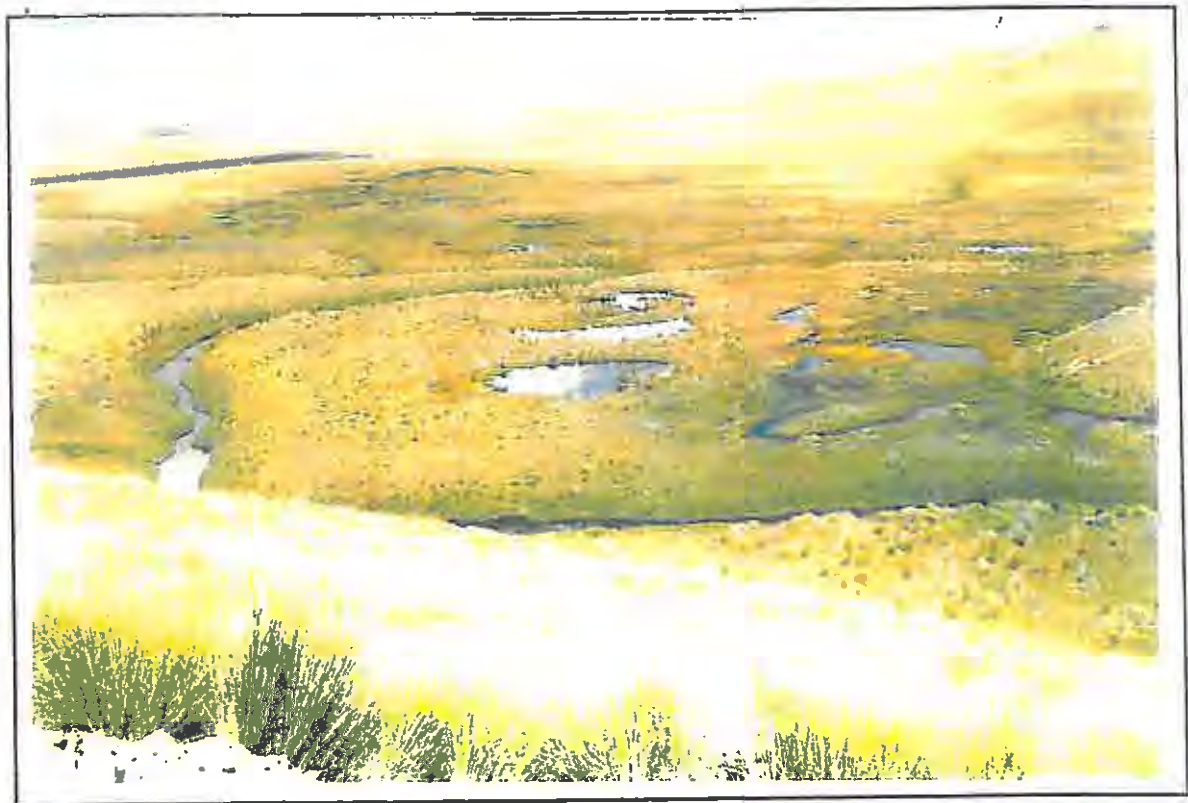


Fig. 8 The Teviot Swamp — a large wetland situated at 1,000m on the Lammerlaw Uplands — covers about 200ha and is the collecting basin for the much wider area which forms the headwaters of the Teviot River drainage system. Its vegetation and ecology have been the subject of national and international scientific studies and it is truly a conservation icon which, together with its entire catchment, must be protected.



Fig. 9 The main farm track to the Teviot Swamp and beyond would provide an excellent mountain bike route with a 'top of the world' quality and landscape diversity in the form of rolling tussock grasslands interspersed with wetlands both great and small. The view here is from the Teviot Swamp at about 1,000m, looking back towards Beaumont.



Fig. 10 Looking down to the Canadian Flats from the 'Hydro Road'. The lack of public access to the uplands of Beaumont is a problem which needs to be resolved. The 'Hydro Road' passes through the northern part of Beaumont station from the Canadian Flats to Lake Onslow but is controlled by locked gates, and part of the route passes through private property on Stonehenge.



Fig. 11 The only secure public access is from Te Papanui Conservation Park, and this is only seasonal. This access leads to the Lammerlaw Range and thence to the Tevlot Swamp. What is then required is to be able to exit Beaumont via another route. A possibility might be the main farm track between the Talla and Fruid Burns, especially if a diversion could be constructed to avoid intrusion of privacy at the homestead.

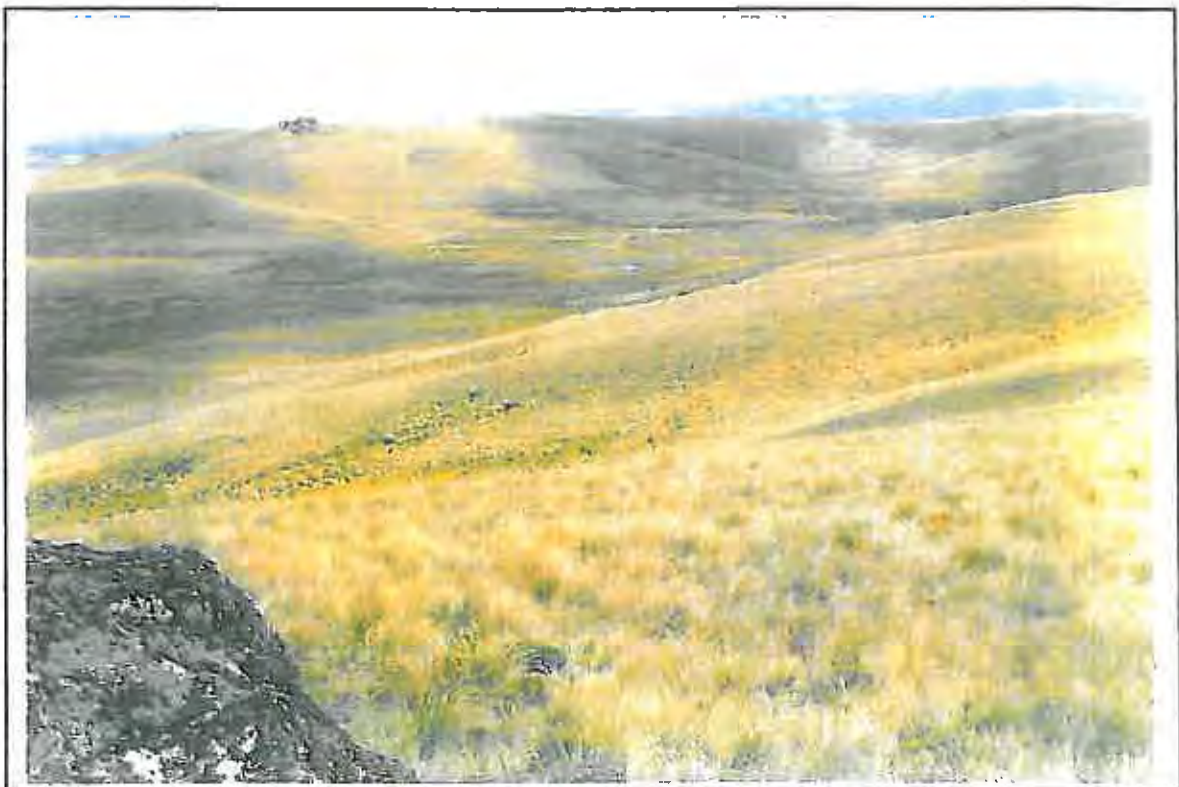


Fig. 12 The Red Swamp is a wetland similar to, but smaller than the Tevlot Swamp, situated at about the same altitude, but which drains into the Taleri River system. It contributes to the landscape diversity in the vicinity of Davidsons Top and the rolling Lammerlaw uplands.

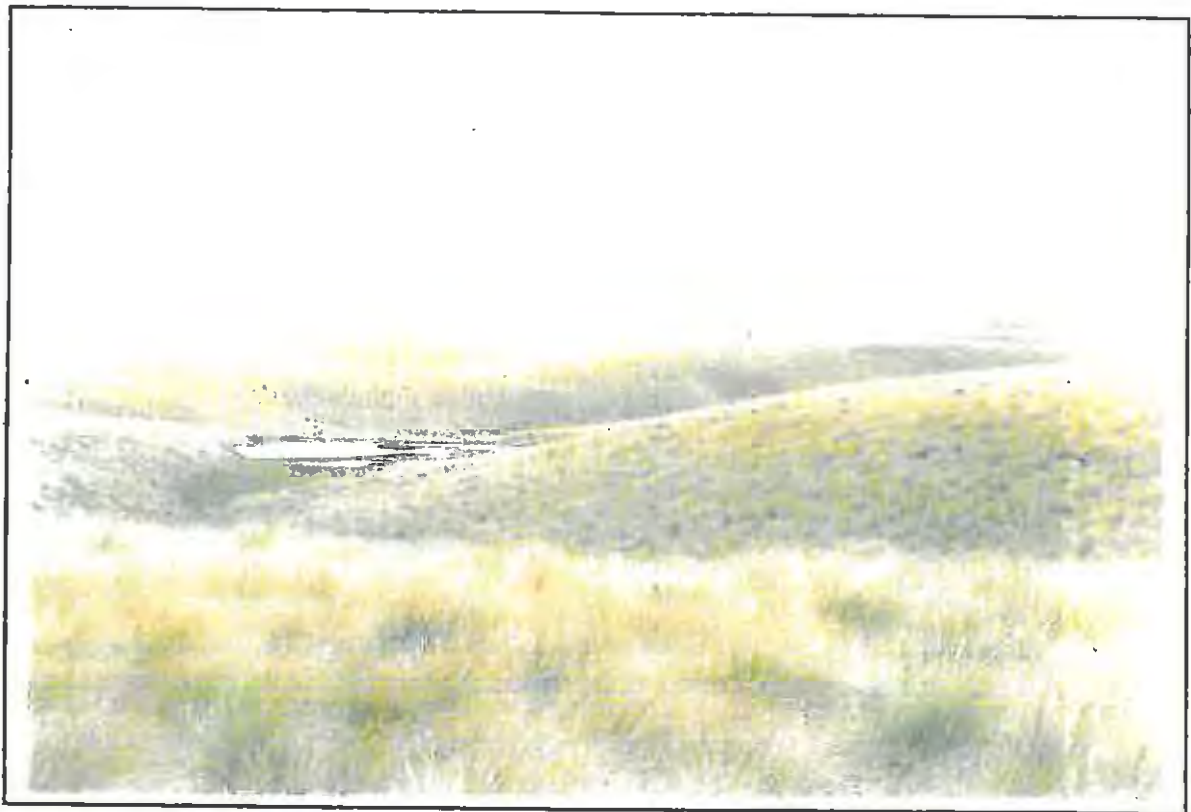


Fig. 13 The Lammerlaw upland might be described as a rather repetitive landscape of interlocking, gentle tussock ridges and equally gentle swales, often occupied by small wetland features sometimes known as gully-head bogs or mires. Although repetitive, this whole striking landscape resembles a gently crumpled velvet bedspread which is best seen, and photographed, in low-angle early morning or evening light (See also Fig. 16).



Fig. 14 Scattered snow tussocks and interspersed sub-alpine plants provide interest for botanists, both amateur and professional, with interests in passive as well as active recreational pursuits. The summit of Lammerlaw Top is one place where sub-alpine plants such as bog pine (*Halocarpus*) and *Drachophyllum* can be found.



Fig. 15 An historic gorse fence can be seen near the western boundary of Beaumont at about 800m where it runs along a modern farm fence before descending into a gully and traversing east across the property. It finally runs across the eastern boundary into Castle Dent at about the same altitude. This would date back to the early days of pastoralism when other fencing materials were impractical.



Fig. 16 The uplands have both significant inherent conservation value and ecosystem service values which must be recognized. Water harvesting is likely to become increasingly important in the future and is particularly so on Beaumont because both the Teviot and Taieri watersheds are important sources of water for irrigation, power generation and town supply.



FEDERATED MOUNTAIN CLUBS OF NEW ZEALAND (Inc.)
P.O. Box 1604, Wellington.

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10 May 2010

Tony Perrett
High Country Tenure Review Manager
Department of Conservation,
PO Box 5244
DUNEDIN

*Debbie,
Please distribute
to report writers

Thanks, Tony*

Dear Tony

**Supplementary Tenure Review Reports:- Kelvin Grove, Glencoe Run,
Beaumont Station and Obelisk**

Thank you for arranging the Tenure Review Feedback Meeting on 27 April. This was most helpful and has given rise to the need to offer supplementary reports on the leases under review in 2009- 2010.

FMC is grateful to DOC for this opportunity to add supplementary information to Reports already submitted to assist in the consultative stages of tenure review on the pastoral leases under review at this time.

Please now find below Supplementary Reports on behalf of FMC on Kelvin Grove, Glencoe Run, Beaumont Station and Obelisk.

Finally, FMC thanks you for this opportunity to present Supplementary Reports on those pastoral leases undergoing tenure in 2009 – 2010.

Yours sincerely

Dr Michael J S Floate,

On behalf of Federated Mountain Clubs of NZ Inc.

Supplementary Report on Beaumont Station

FMC still believes that this is one of the most important tenure reviews ever undertaken in Otago. It is therefore very important that the outcomes are the best possible for conservation and recreation. There are two issues which are of critical importance:- (i) the protection, preferably by return to full Crown ownership and control, of the highly significant (by national and international standards) wetlands: Teviot Swamp and MacKays Stream, Fortification Creek, and Red Swamp, and their collection catchments: (ii) secure public foot and mountain bike access from at least two entry points additional to the access from Te Papanui.

With regard to the first of these issues – the protection of wetlands, it is most important that not only their significant inherent natural values and landscapes are taken into account, but that their ecosystem service values – water harvesting and water storage together with actual and potential commercial use and value for domestic and industrial supply, for irrigation and for electricity generation. The actual \$ values of these ecosystem services should be calculated and presented as arguments in support of the protection under Crown control of these very significant areas. It is also important to note that the water harvesting value will only be maintained as long as the tussock grasslands are maintained in good condition. If this is done these tussock grasslands will continue to yield some 80% of incoming precipitation as a useable water resource. Another important feature of these wetlands is that the slow-moving flow of water from these wetlands results in very small sediment yields as compared with more erosive, faster flowing streams.

The existence of the many legal roads on Beaumont should assist in the endeavour to develop a network of public access routes across the property. We are aware that some of these 'roads' are unformed legal roads while other tracks do not conform with the cadastral legal alignment. We understand that where the legal roads are 'indicative' they are intended to represent the general direction of the road (ie. not necessarily its precise location on the ground). Where this is the case, we understand that LINZ has the discretion to deem an actual formation to be the legal road. This discretion should be used wherever possible to create a satisfactory network of secure public access onto and across Beaumont Station land.

Because of the sheer size of this property vehicle support for many recreational activities is highly desirable. Vehicle use, and especially 4WD vehicle use, is not without its problems and threats. However, many of these problems and threats could be minimized by having vehicle use of some tracks under the control of DOC who could be empowered to issue keys for locked gates to approved users for specified dates, or set up some other appropriate permit system.

Given the existence and growing popularity of the Otago Central Rail Trail, and the development of a cycleway adjacent to the Millennium Track, it is important to give consideration to the needs for a cycleway or cycleways on Beaumont. Tenure review presents a good opportunity to lay the foundations for linking existing and proposed cycleways with new opportunities on Beaumont. An example might be from the Te Papanui gate on the Lammerlaw Range to Lake Onslow and the Lake Onslow Road and the Millennium Track.