

Crown Pastoral Land Tenure Review

Lease name : OBELISK STATION

Lease number : PO 264

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.

December

10

4.4 NGO Comments

- 4.4.1 Royal Forest and Bird Protection Society – Central Otago/ Lakes Branch
- 4.4.2 Royal Forest and Bird Protection Society – Dunedin Branch
- 4.4.3 & 4 Federated Mountain Clubs (2)
- 4.4.5 Central Otago Recreational Users Forum
- 4.4.6 New Zealand Deerstalkers Association

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Royal Forest and Bird Protection Society of New Zealand Incorporated

Central Otago-Lakes Branch

Denise Bruns (Secretary)
4 Stonebrook Drive
WANAKA 9305

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31st March 2010

Mr Tony Perrett
Department of Conservation
Lower Stuart Street
DUNEDIN

Dear Tony

Tenure Review

At an early warning meeting of Non-Government Organisations held in September last year we were introduced to three new pastoral leases coming into the process. Please accept this report on, and our recommendations for, Obelisk Pastoral Lease Po 264, the Significant Inherent Values it contains and other matters - pertaining to tenure review.

This report is based on an inspection we carried out during January 2010. We wish to thank the lessees for allowing us to do so.

In preparing this report we consulted the Conservation Management Strategy for Otago and various other documents. Many of our members are very familiar with the area, we called on their knowledge as well.

1-0 General.

- Obelisk pastoral lease is in the centre of the Fruitlands district. It is in two parts; that to the west of SH8 is known as West Obelisk and that to the east of SH8 as East Obelisk.
- West Obelisk rises from approximately 500m (asl) to the crest of the Old Man Range in the vicinity of the Obelisk tor rock itself at approximately 1656m
- East Obelisk rises slowly over a distance of nearly 4km from approximately 470m in the south to approximately 500m in the north where it abuts the Flat Top Hill Conservation Area.
- There are considerable gold-mining relics and historic values on Obelisk West. On Obelisk East the best of such relics were drowned when Lake Roxburgh came into being.
- There is a reasonable dry weather road open to the public known as Symes Road running up the centre of the West Obelisk block on the ridge between Obelisk Creek and Butchers Creek.
- It is doubtful if the present formation of this road is on the surveyed line. We do know it does deviate where it goes round the sunny side of the ridge below the old stone hut. This deviation was put in place when the road was upgraded for the installation of the TV Tower. Symes Road gets a lot of use both winter and summer. It can at times be negotiated by 2WD vehicles. Consideration should be given to re-surveying the legal road on to the present formation.

-2-

- Power to the TV tower goes overhead up to the old stone hut, after that it is underground. There are easements in place to provide for this.

2.0 Obelisk West.

- Being on the edge of "Central Otago" and rising upwards from Mitchell's Cottage this block has a large variation in both climate and weather.
- Up to about the 750m contour the pasture is mostly modified. On the sunny faces the tussock is thin, but on the darker faces and in the bottom of the gullies short tussock is still present, this merges into tall tussock higher up the mountain.
- This lower country is mostly Class VI land has been oversown and topdressed. This is evident in the vigour and amount of matagouri present. There are also scattered remnants of other woody shrubs on this lower pasture; olearia and coprosma to name but two.
- Above the 900m contour the tall tussock, although thin in places due to burning and past management practices is visually in quite fair condition; this is reflected in the landscape - it is a "tussock landscape". The tall tussock merges into the short blue tussock area at about 1100m and finally into the rock fellfields and herbfields at the top of the mountain. This land is Class VII merging into Class VIII at the top.
- The tussock is slowly recovering and will continue to do so if de-stocked and given a chance to recover.
- The inter-tussock indigenous vegetation is depleted in places but is still mostly present. Exotic grasses are present throughout, especially where favoured by sheep.
- The altitudinal sequence of the vegetation can be seen when driving from the bottom to the top of the range. The vegetation present and its rarity values have been very well documented by the Botany Department, University of Otago and other publications, and are very worthy of protection.
- To the north and to the south of West Obelisk and below the Te Kopuwai Conservation Area there are two properties that have been through the process of tenure review – Obelisk Creek on the south side, and Earnsclough on the north side - both of which contributed to the enlargement of the Te Kopuwai conservation area down to about the 1250m contour on the eastern side of the Old Man Range.
- Below these two areas on these two properties the land became freehold but with covenants to protect both the landscape and other significant inherent values. These covenanted areas extend down to approximately the 900m contour on the north and south boundaries of West Obelisk.
- The Due Diligence reports show that some years ago the Department of Conservation was negotiating for the purchase of Obelisk in order to fully protect the conservation values it contained. It was intended to on sell the land they did not want.
- Te Kopuwai is in the Old Man Ecological District; and during the PNA programme conducted in the 1980s the top area of Obelisk, above about 1250m, was identified as worthy of being protected; this was known as Obelisk (RAP 1/7)

-3-

- At the same time the area above about the 900m contour in Butchers Creek was identified for protection; it was known as Butchers. (RAP 2/3)
- The land we have identified above still contain significant inherent values in its landscape, flora and fauna. It should be noted that the significant inherent values in both the property to the north and the property to the south have been given protection down to about the 900m contour by way of suitable covenants.

- **3.0 Historic Values.**

- Just off the south side of Synes Road in the vicinity of the 1000m contour there is considerable evidence of gold mining: the resultant workings and tailings are well preserved.
- Also within the area of these gold workings is the well known, and well crafted, stone hut. This hut and the surrounding mining relics will have to be given the best of protection available by being returned to the Crown. This would secure and ensure public access and enjoyment of them.
- In Obelisk Creek on the lower land that could become freehold as it could be farmed in an ecologically sustainable manner. There are also other gold mining relics to be protected, e.g. just near the creek bed itself there are the remains of what was known as Whytes Battery.
- It will be necessary to protect the remains of this battery and the other mining relics by way of an enduring covenant.

4.0 Obelisk East.

- This block is about a third the size of the above West block and is towards the southern end of an area known as Flat Top Hill, the north end of which contains the Flat Top Hill Conservation Area.
- Rainfall in this southern area will be greater than that at the northern end of Flat Top Hill, consequently the vegetation is different in many respects.
- The Lake Roxburgh face is very steep and its landscape is in complete contrast to the top of the hill: it is spectacular.
- Although to a large extent drowned by Lake Roxburgh there will still be evidence of the gold mining days present above the lake level. No matter how small this evidence is, it should be protected
- The vegetation at the southern end is in remarkably good order; short tussock is dominant, both fescue and silver tussock are present. The woody shrubs of the district, kanuka, cassinnia, coprosma, carmichaelia, olearia, myrsine and others are doing well.
- The tussock is less dense towards the north end of the block.
- There is much broom and some wilding conifers on the property to the south of this block which are spreading north into East Obelisk.

-5-

- To reinforce the case for returning the land on Obelisk to the Crown was the consideration given approximately twenty years ago to purchasing the whole property in order to protect a large portion of it. Also as the two areas Obelisk RAP 1/7 and Butchers RAP 2/3 already recommended for protection the opportunity should now be taken to protect those values previously identified by returning those areas we have described to the Crown by the "Preferred" method under the act.

We thank you for the opportunity to make these comments and we await the outcome with interest.

Yours faithfully



JL Turnbull

For Central Otago-Lakes Branch.

OBELISK

Preliminary Report on the Conservation , Recreation and Historic Values and Recommendations for the Outcome of Tenure Review.

This submission is written on behalf of the **Dunedin Branch of the Royal Forest and Bird Protection Society** which has approximately 1000 members with strong interests in botany and natural history in general and in the High Country. Many of the members enjoy active recreation in the back country and are very aware of the need to ensure the protection of natural values, vegetation and landscape, historical sites and to improve public access through the tenure review process.

The submission is made on the basis of an inspection trip in January and from frequent visits to the lease over the last 20 years on both tramping and botanising trips, several with Sir Alan Mark.

Introduction

Obelisk is a narrow lease on the east side of the Old Man Range with its western section extending up to the range crest at 1700m from Fruitlands, above Mitchell's Cottage, on either side of Symes Road and the 4WD track that continues up. The second, eastern, part of the lease which covers much of the southern aspect of Flat Top Hill extends from close to the State Highway east of the pylon line across to the Clutha River with the Flat Top Hill Conservation Area as its northern boundary. We note from the Due Diligence reports that in the past the Department of Conservation was negotiating for the purchase of Obelisk in order to fully protect the conservation values it contained.

We also note that the tenure reviews of Earnscleugh Station to the north of Obelisk and Obelisk Creek to the south, resulted in Conservation land, now part of Te Kopuwai, down to approx 1260m on the eastern face. Further, Covenants were created to protect both landscape and the significant inherent values over land down to approx. 900m.

The western section of the lease.

The top or western area of this part of the lease (from about the 1070m contour to the lease boundary on the range crest) is part of RAP OM1/7 Obelisk, identified during the PNA Survey of the Old Man Ecological District, 1986. A secondary RAP, OM2/3 Mid Butchers Creek was identified to the right of the road at about 800m to the eastern boundary of OM1/7 and extending across to the northern boundary of the lease. The altitudinal range being from 610m-1370m. We note from the Due Diligence reports the sad tale of the permission being given to burn the area of RAP OM 2/5 during the period when Mr Sanders was the lessee, something that should never have been allowed to happen.

The Obelisk lease landscape is an integral part of the 'Old Man' iconic and outstanding landscape as seen from State Highway 8 between Roxburgh and Alexandra. These eastern slopes of the Old Man contribute significantly to the character of the Range, both from a landscape point of view and for the significant inherent values present within them.

The eastern section of the lease

This area is quite different from the western section. The Obelisk part of Flat Top Hill is blessed with an extraordinary selection of impressive tors, many ephemeral wetlands with spring annuals, some of them rare plants, and a steep hillside leading down to the River/Lake Roxburgh with active shrub regeneration in progress.

Significant inherent values to be protected

- 1. The western part of the lease from the summit crest down to the lower boundary at 600m, a short distance above Mitchell's Cottage.**

The top, western boundary from about 1630m down to about 1400m is uplifted schist plateau with hummocks and solifluxion terraces and has herbfield, cushion field and fellfield and many schist tors, both small and large. The weather can be extreme up here even in midsummer. The landscape is remote, stark and impressive and the sky and weather patterns are amazing. The diversity of the alpine plants and lichens both on the ground and the tors is extensive. In short it is a botanical paradise. En masse flowering of *Celmisia prorepens* and *C. brevifolia* can be sights never to be forgotten.

The interpretive panels describing the research placed at one of the tussock monitoring sites by Sir Alan Mark and co-workers are an extra bonus and a aid to understanding of the snow tussock communities.

The herbfield/fellfield is the breeding ground for large numbers of banded dotterels and they are wonderful to see.

With the commonly used access via Symes Road the recreation values, summer and winter cross-country skiing, are high with possibilities to explore and enjoy the tors and their flora and appreciate the extensive views on a fine day.

From the side track (at about 1460m) along to an unused communications tower it is but a short walk south to one of the most impressive snowbank communities I have ever seen in the head of Coal Creek.

At about 1400m there is a transition from herbfield/fellfield to tussock grassland which is in good condition down to the gate about 900m. There are many inter-tussock species such as gentians and *Acyphylla Sp.* Numerous wetland flushes are also present.

The nature of the high alpine area and the tussock grasslands has been well documented over many years in work from Mark and others from the Otago University Botany department and studies directly relevant to climate change are on going.

The country above about 1000m has very high conservation and recreation values. We note the soils are classed as LUC Class VIIc and VIIe and therefore this country has severe limitations for pastoral use since it is unlikely that they can be managed in a way that promotes the ecological sustainability required by the CPL Act. without replenishment of nutrients.

Below 1000m the land is classed as LUC Class VI (medium suitability for pastoral production and much of this area on Obelisk has been oversown and topdressed. It should be capable of sustainable management and is therefore suitable for freeholding.

The altitudinal sequence from 900m to the top of the range is an important one to preserve as it stands and ideally should be returned to full Crown ownership and control. This means that RAP OM 1/7 would become Conservation Land and we believe that the values as outlined in the original description of that RAP are still present. It would also include much of the RAP OM 2/3 which should be able to recover to a degree from past burnings if grazing was removed. Such a Conservation area would also give protection for the mining areas and the historic hut (built by the Mitchell Brothers) above the 900m fence

We note that conservation land, now a part of the Kopuwai Conservation Area, has come from the ex Obelisk Creek lease to the south and the ex Earnsclough Station land to the north down to approximately the lower boundary of RAP OM1/7 at 1360m and this should also be the case on Obelisk. Covenants have also been created on those two leases to allow protection of landscape and inherent values.

Recommendations

That the area from 900m to the top of the lease at the range crest become Conservation Area (and be added to the Kopowai Conservation Area) to protect the significant inherent values, ecology, landscape and provide for various forms of recreational activity.

Note that the relatively easy 4WD access via Symes Road allows people of all ages to botanise, explore and enjoy this unique alpine and sub-alpine environment without having to walk vast distances.

There should be some form of protection over all the mining relics, races and historic huts which are mainly situated below 900m.

That covenants are in place to protect the landscape on this Eastern face of the Old Man Range.

Access

The access track via Symes Road to the crest of the Range and along to the Obelisk has been used by the public for many years. It is vital that this route is formally recognised for public access as an outcome of this review.

2. The eastern part of the lease on Flat Top Hill South

This part of the lease has a quite different character from the western Obelisk section. It adjoins the Flat Top Hill Conservation Area at the northern boundary.. Once the Flat Top Hill plateau is reached it is a dry environment, but with numerous ephemeral wetlands containing various rare plants and spring annuals.

There are also areas of shrublands, tussock grassland and short turf. The eastern side of the plateau has deeply incised gullies leading down to the Gorge way below.

There is a strange wooden stable structure halfway along the top which at first we took to be from older times but have since discovered that it was built in the recent past as part of a film set for a western movie – and strictly speaking should probably then have been removed thereafter!

The lease here has some magnificent and intriguing tors and unusual horizontal schist well covered with lichens which are great to explore and enjoy; a photographers paradise. The views up to the Old Man and further to the east and down to the River/Lake Roxburgh in the Gorge below are outstanding.

On the Gorge face there is significant regeneration of *Ozothamnus vauvilliersii* in progress.

Recommendations

We would like to see a Conservation Area created which would allow wandering among the tors and scrambling down to the waters edge and botanising on the ground, but would have no objection to a grazing easement for sheep at the level that has been in the recent past which obviously favours survival of some of the rare plants which thrive on small stock disturbance.

We do not believe that vehicle access should be allowed; it is an easy area to get to on foot or with mountain bike which we believe is sufficient and there is also the possibility of continuing on over to the Flat Top Hill Conservation Area. To allow foot and bike access it may be necessary to negotiate an easement to the road side boundary of this part of Obelisk. Alternatively, access could be from the Flat Top Hill Conservation Area through an existing gate.

Any mining remains or old huts in the Gorge that have escaped drowning should be noted and protected we were unable to go down and check on the extent of these sites.

Figures

The western section of the lease



Figure 1. View from the roadside just opposite Whites Hut. We believe that the gate close to this point should mark the lower point of a Conservation Area



Figure 2. The trial plot established in 1960 as part of a study of the ecology an sustainable management of snow tussock by Sir Alan Mark and others. Below, Figure 3, a valuable interpretation panel explaining the study.

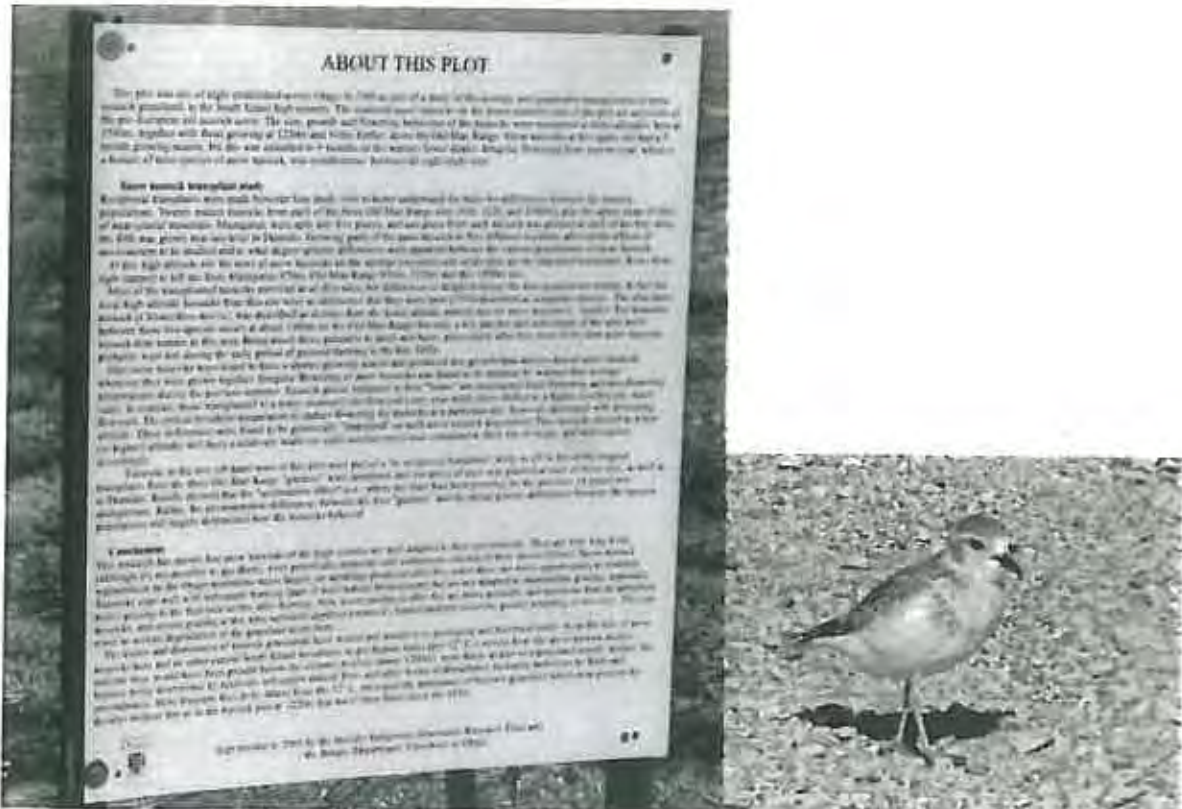


Figure 4. A young dotterel nearby



Figure 5. An amazing snowbank community and tors in the head of Coal creek



Figure 6. A picturesque patch of *Nertera balfouriana* in the snowbank community.

Eastern Obelisk



Figure 7. Tussock grassland towards the southern end of the Flat Top Hill part of the lease. Short tussock is dominant and both silver tussock and fescue are also present.



Figure 8. A further view (looking south) of an area of tussock, with some shrubs and tors on the southern half of the Flat Top Hill part of the lease.



Figure 9. Tussock and woody shrubland. Among the shrubs are kanuka, *Coprosma Sp.*, *Ozothamnus*, *Carmichaelia Sp.*, *Olearia lineata* , *O. bullata*, and *Myrsine Sp.*



Figure 10. Towards the northern part of Flat Top Hill are numerous ephemeral wetlands containing some rare spring annuals among other plants.



Figure 11. A further example of a wetland area in the northern section.



Figure 12. *Crassula multicaulis* (Nationally Critical), one of a number of plants found in one of the rock-lined ephemeral wetlands/depressions.



Figure 13. Another series of rock-lined ephemeral wetlands/depressions.



Figure 14. One of the many magnificent rock sculptures which are a part of the scenic attractions on Flat Top Hill. A photographers paradise.



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 Obelisk

1. Flat Top Hill Block

In our earlier "Preliminary Report", in the section headed "Issues and Recommendations" CPL Act S24(b)(i) we discussed the option of protection of natural values under Covenant. It was suggested that controlled grazing might be an appropriate way of encouraging and promoting the small spring annual plants. It was argued that that would require conditions to define stock limitations and to provide for monitoring.

We now consider that an alternative, which could achieve the same results, would be to designate a Grazing Concession over a Conservation Area. This would have the advantage that public access would be available to and within the Conservation Area, whereas arrangements for public access to a Covenant area on freehold land could be more difficult to achieve and might not provide secure access.

Whichever option is decided – Conservation Covenant over freehold, or Grazing Concession over Conservation Land, FMC stresses that the important issues are secure public access and protection and promotion of small spring annual plants.

We are aware of the scenic value of the Roxburgh Gorge as seen from the Doctors Point Track, and from the river itself. These landscape values should be protected from inappropriate development such as the siting of structures or afforestation. We are also aware that the NZ Cycleway will run along the lower slopes on the true right of the Clutha River and this provides another good reason to protect the Gorge landscape.

2. Old Man Block

A very important issue to emerge from the recent meeting was secure public access to the Old Man Range. We had earlier understood that Symes road was a legal road and that public access was therefore assured. We now understand that this is not the case over significant sections of the road where it deviates from the legal alignment. FMC does not have strong views about what mechanism should be employed, but we do have strong views that secure public access to Kopuwai Conservation area via the formation known as Symes Road MUST be provided as an outcome of this tenure review. Our earlier recommendations with respect to access are entirely wrong because public access is in fact not secure, and our earlier recommendations should therefore now be ignored.

In our earlier "Preliminary Report" we did not adequately stress the importance of natural values identified by PNA Surveys in the 1980s. The upper part of the front face, above about 1300m was identified as RAP OM 1/7 while below this area RAP OM 2/3 extends down to about 800m in the upper catchment of Butchers Creek. Both these areas contain significant inherent values described in the PNA Reports which support our arguments that both areas should become Conservation Area, eventually to be added to the Kopuwai Conservation Area.

The Old Stone Hut, known as Whytes Hut is situated in the same altitude band as RAP OM 2/3, a little to the south of Symes Road. In our earlier Report, FMC failed to recognize the extent and importance of the historic gold mining relics in the vicinity of this hut, and the workings and artefacts scattered in the gully and its surrounds above and below the hut. These include the remains of a stamper battery and its component parts, as well as evidence of mining diggings and tailings. We now recommend that the entire area of historic relics should be protected either as Conservation Area, or under a Historic Protection Covenant if the area of relics extends significantly below the area recommended for Conservation Area status. We believe that it should be possible to allow controlled, sheep-only, grazing within the area of any such Historic Protection Covenant, without causing significant damage to the historic relics themselves.



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

PASTORAL LEASE TENURE REVIEW

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

OBELISK 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, AND RECOMMENDATIONS
FOR THE OUTCOMES OF TENURE REVIEW ON OBELISK STATION**

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

March 2010

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Fig. 1 Looking west from about 500m above sea level on the Flat Top Hill block of Obelisk Station, across Fruitlands, to the freehold properties below Mitchells Cottage. Above about 600m can be seen the lower and mid slopes of the Old Man block of Obelisk. The top blocks are obscured by cloud above about 1,200m. Earnsclough Station lies to the north (right) and Obelisk Creek to the south (left), in this view.

Fig. 2 The west face of Flat Top Hill is prominent when viewed from Fruitlands and SH 8 between Roxburgh and Alexandra. Above the lower boundary fence at about 400m, the steep slope includes a mix of pasture grass, thyme, other shrublands and many schist rock tors on the upper slopes and skyline. This landscape should be protected from the adverse effects of subdivision and inappropriate developments.

Fig. 3 The gold mining around Fruitlands, and Mitchells Cottage on Symes Road are well known, but less well known is another cottage built by the Mitchell brothers in the gold mining days. This is situated at about 1,000m, a little to the south of the Obelisk access road. This hut should be protected as it has historic significance and recreational importance, having been restored for use as a ski hut by the Vincent Ski Club in the 1950s.

Fig. 4 The lower slopes are characterised by Yellow Grey Earth soils classified LUC Class VI, with medium suitability for pastoral use. The view here, at about 800m, shows short tussock grassland which has been oversown and topdressed. With continuing maintenance fertiliser to replace nutrients removed in animal products and lost through burning, the land should be capable of supporting ecologically sustainable pasture production.

Fig. 5 The higher country, seen here at 1,400m is characterised by High Country Yellow Brown Earth soils classified LUC Class VIIe and VIIc with severe limitations to pastoral production due to erosion risk and climatic limitations. Such land cannot support ecologically sustainable pastoral production. Instead the significant inherent landscape and natural values should be protected by return to Crown control.

Fig. 6 The main access to the Kopuwai Conservation Area, including the Fraser Basin, Hyde Rock and the Obelisk itself, is up the road built in the 1970s for the construction of the TV transmission tower at 1,695m above sea level. This road runs up the prominent spur between Obelisk Creek and Butchers Creek and provides good access to Obelisk pastoral lease as well as the public conservation land beyond.

Fig. 7 Flat Top Hill is well named as it is a gently undulating plateau studded with horizontally bedded schist tors and exposed bedrock. It drops away steeply to the Clutha Gorge (now occupied by the sinuous Lake Roxburgh) in the middle distance. Beyond the gorge to the east, can be seen the skyline of the Knobby Range.

Fig. 8 The steep eastern face of Flat Top Hill is best seen from Lake Roxburgh or, as in this view, from the Doctors Point Track. The highest point is at 570m and the face drops steeply over a distance of less than 1,000m to only about 150m above sea level at the lake. This makes for spectacular scenery but very low productive value on a gradient of about 40% with shallow rocky soils. It is better to be protected for its high conservation values.

Fig. 9 The Flat Top Hill block of Obelisk Station is bounded to the north by the Flat Top Hill Conservation Area managed by DOC, which is seen beyond the fence, with its eastern face running down to Lake Roxburgh. The basic landscapes and ecosystems of both blocks are similar and could provide the resources to test a number of differential management strategies designed to achieve different conservation goals.

Fig. 10 Studies of the ecology and sustainable management of tussock grasslands have been carried out on the Old Man Range by Otago University since trial plots like this were established in 1960. These

plots have great scientific value and are also of interest to recreational visitors to the area. On-site signage explains the objectives and findings of the studies. These plots should be included within a new conservation area designated on Obelisk Station.

Fig. 11 An experimental snowfence was built in 1959 by the Otago Catchment Board to test the capture of snow which, after melting, could augment the water yield of the Fraser Basin, rather than blowing over the crest of the Old Man Range. The fence has stood the test of time and recent signage explains the purpose of the structure to interested visitors to the Kopuwai Conservation Park.

Fig. 12 The varied and biologically diverse top of the Flat Top Hill block provides a low altitude destination for people to explore and enjoy the tor studded landscape with all its interesting features including – a mix of tussock grassland, short turf grassland, shrublands, horizontally bedded schist tors, flat schist outcrops and shallow ephemeral tarns. Flat Top Hill could provide a round trip when combined with the existing DOC Flat Top Hill Conservation Area.

Fig. 13 Deeply incised gullies run down the eastern side of the plateau to Lake Roxburgh in the Clutha Gorge, inviting exploration by those not daunted by the prospect of climbing back to the flat top. One of the problems of this block are woody weeds, including briar, broom and wilding pine, control of which should be a condition of the proposed Conservation Covenant.

Fig. 14 Visitors to the summit plateau of Flat Top Hill will be intrigued by a large, wooden stable building which appears to have historic significance. It is certainly a prominent feature in the landscape but it is not genuine. Its history is recent, in that it was constructed towards the end of the last century as part of a film set for a western movie. Some would argue that it should be removed but it still is a curiosity for those with enquiring minds.

Fig. 15 The transition from tussock grassland to herbfield is abrupt at about 1,400m. The vegetation here consists of a herbfield dominated by several species of *Celmisia*, together with dwarfed mats, cushions and turfs with many families of alpine plants, mosses and lichens represented. At the highest levels these are associated with patterned ground, but such phenomena are mainly confined within the Kopuwai Conservation Park, above the top boundary of Obelisk Station.

Fig. 16 In the upper catchments of Obelisk Creek and Butchers Creek there are good examples of tussock grasslands which warrant protection within the area between about 1,000 and 1,400m, and which should be returned to Crown control. The tussock grassland in this view includes a wetland flush and evidence of past burning.

Fig. 17 Snowbank communities sometimes survive late into the year at 1,450m in the headwaters of Obelisk Creek and Coal Creek. Even at this high altitude the land is still within the pastoral lease but should certainly become conservation land with the full protection of Crown ownership and control. Here botanists are oblivious of mist and cold driving rain as they examine the most recent plants to emerge from the snow cover.

Fig. 18 Searching snowbank communities in adverse weather conditions is often rewarded with fascinating finds. Here, intrepid botanists have discovered a rare specimen (the only one in the whole area) of *Nertera balfouriana* at 1,450m beside a dwindling snowbank in the head of Coal Creek.

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. Inspections of the two parts of the property were carried out by the author in January 2010, with the kind permission and co-operation of the runholder, Allistair Campbell. This report is based on those inspections 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 Obelisk Station from a recreation and conservation perspective.

This pastoral lease is unusual in that it consists of two separate blocks which are entirely different in their natural values and recreational opportunities. This is why they have been dealt with separately except for the common features which are covered in the introduction.

Obelisk pastoral lease is a relatively small property at Fruitlands which consists of two blocks (Fig. 1): one is situated on the eastern slopes of the Old Man Range, while the other straddles Flat Top Hill adjacent to the DOC Flat Top Hill Conservation Area near Butchers Dam. The entire lease occupies about 2,800ha and is run in association with the neighbouring Earnsclough Station. Both the neighbouring properties have completed the tenure review process so new land allocations between new freehold and conservation land have been agreed and implemented.

This is important because it means that the boundaries to the north and south of Obelisk Station between new freehold and conservation land have already been established. Those boundaries are important because they have implications for the potential (or real) adverse effects on landscape values of stock camps along the upper boundary of the new freehold land.

Two issues arise here: the first is where should the boundary between freehold and conservation land be drawn on Obelisk, and the second is how to harmonise the landscape effects of this boundary on Obelisk with those already established on neighbouring properties. These are issues which need to be resolved in the tenure review of Obelisk Station.

This report focuses on those features of the property 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 crest of the range, and along Flat Top Hill), the natural and historic values and landscapes greatly influence the quality of recreational experience enjoyed. It is for this reason that reference is made to these values in this report.

The landscape of the eastern face of the Old Man Range (Fig. 1) is prominent for all travellers on State Highway 8 from Roxburgh to Alexandra, most of whom will not fail to notice the prominent tor (called The Obelisk or Kopuwai) and the adjacent communications structure which dominate the skyline on the Old Man Range. Both are located above the Obelisk boundary and are sited within the Kopuwai Conservation Area.

The landscape on the western face of Flat Top Hill (Fig. 2) is also prominent when viewed from SH 8 so some landscape protection may be required to guard against potential adverse effects of inappropriate subdivision, land use and development.

Symes Road runs through the middle of that part of Obelisk on the Old Man Range, and Mitchells Cottage, just above the Fruitlands community is a well known historic feature of the area. Although the gold mining associations on the Fruitlands area are quite well known, another cottage built by the other Mitchell brother, and dating back to goldmining days, is less well known (Fig. 3). This is an important feature of Obelisk Station, both because of its historic significance, and because of its recreational use having been restored for use as a ski hut by the Vincent Ski Club in the 1950s.

Issues related to soil type and Land Use Capability (LUC) classification and the ecological sustainability of land use on Obelisk will be discussed in a later section of this report.

METHODS OF SURVEY AND ASSESSMENT

This report is based on the author's January 2010 field inspections and, in part on information gathered from other sources. These include studies of topographical and Land Use Capability (LUC) maps, consultation with recreational user groups and a knowledge of the landscapes seen from State Highway 8 and also from elsewhere along the Old Man Range.

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 has also been used as sources of reference.

GENERAL DESCRIPTION OF OBELISK

Obelisk pastoral lease (Po 264) covers almost 2,800ha in two blocks in the Fruitlands district (Figs 1 and 2). The larger block is situated on the eastern face of the Old Man Range and stretches from just above Mitchells Cottage on Symes Road to the crest of the Old Man Range at about 1,600m above sea level. The other, smaller block (Fig. 2) is situated on Flat Top Hill adjacent to and south of, the DOC Conservation Area of the same name.

Mason (1988) has described the landforms of the Old Man Range as follows:- *"The Old Man Range forms the south-westerly boundary of Central Otago's block mountains. Its easterly escarpment rises moderately steep from the Clutha Valley to a gentle, convex summit crest at 1,440-1690m. Western back-slopes are drained by two high altitude basins, both parallel to the summit plateau.*

The summit plateau of the Old Man Range is well known for mountain tors. Clusters of schist tors stand as stark sentinels above smooth, easy rolling surfaces. There are a variety of forms, the most spectacular being vertical shafts with one of the highest examples to occur in Otago being the Obelisk. Others are overhanging pedestals or of irregular block form. On the eastern foothills fretted tors provide a dominant craggy landscape which extends down to the environs of Alexandra.

Around what must have been a Pleistocene snow cap, patterned ground has developed, providing the greatest variety and most well formed periglacial features to be found in New Zealand. On north-eastern slopes below the range crest, solifluction terraces and lobes developed from slow creeping action. Some of these are up to a metre high at the face and appear to still be active. They occur as broad, gentle steps several metres apart. Further downslope, solifluction and slumping processes have rippled the whole surface topography. On colder, gentle surfaces around the summit crest, earth hummocks have been heaved up by frost action. These merge into parallel stripes on sloping surfaces. These can cover hundreds of hectares, but are largely absent from the wind-eroded summit where the underlying schist is uncovered."

(a) General Description of the Old Man Block

The Old Man Block (about 2,000ha) extends from about 600m, just above Mitchells Cottage on Symes Road to 1,600m at the crest of the Old Man Range. The top boundary is the eastern edge of the Kopuwai Conservation Area.

The lower slopes, below about 900m are characterised by Yellow Grey Earth Blackstone Hill and Arrow Steepland soils which are classified Land Use Capability Class VI with medium suitability for pastoral production (Fig. 4). Most have already been improved by oversowing and topdressing. With regular maintenance fertilizer to replenish nutrients removed in animal products and in burning, these soils should be capable of being managed in a way that promotes ecologically sustainable land use. These areas should therefore be suitable for freeholding.

The higher country, or approximately half of the property lies above about 1,000m and is characterised by High Country Yellow Brown Earth Tawhiti, Carrick Hill and Dunstan Steepland soils (Fig. 5). These soils have been classified LUC Class VIIc and VIIe due to climatic limitations and erosion problems. Such soils have severe limitations for pastoral production and it is unlikely that they can be managed in a way that promotes ecological sustainability (as required by the CPL Act) without replenishment of nutrients removed in animal products and in burning. Application of fertilizer to replenish nutrient reserves is generally uneconomic above about 1,000m because pasture production is limited by the cold climate. On the other hand, this 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 the emerging Kopuwai Conservation Park.

The Old Man Range forms the dominant skyline when viewed from the highway so it is important that landscape issues are properly considered during this tenure review. It is important to note that on both neighbouring properties, conservation values are not confined to the new conservation land near the skyline but that these values extend downhill through areas now protected under Conservation Covenants. It is therefore important to consider whether there are similar conservation values on Obelisk which relate to the values on the neighbouring properties, and to consider appropriate mechanisms for their protection on Obelisk.

There is an existing fence at about 900m, just below the old stone hut (Fig. 3), which could serve as the lower boundary of the recommended new conservation area. The hut itself is of significant historic interest having been built by one of the Mitchell brothers and restored for use as a ski hut in the 1950s. This recommended area would contain the tussock grasslands in the catchment of Obelisk Creek and Butchers Creek as well as the herbfields and important ecological communities associated with snow banks which often persist late into the year. Establishing the freehold/conservation boundary at this level would also be appropriate in relation to the areas protected under covenant on the neighbouring properties to the north and south of Obelisk.

The main access to the Kopuwai Conservation Area is via the Obelisk Road which was built in the 1970s to enable the construction of the Obelisk TV transmitter tower (Fig. 6). The road now serves to provide excellent public access to the Kopuwai Conservation Area including the entire Fraser Basin and notable features along the range including the Obelisk itself (1,695m) and spectacular features such as Hyde Rock (1,673m) above a major cirque basin at the head of Gorge Creek. The road also gives good access to the Obelisk pastoral lease as it climbs pretty much up the centre of the property on the spur between Butchers Creek and Obelisk Creek (Fig. 6).

(b) General Description of the Flat Top Hill Block

The Flat Top Hill Block extends from about 400m above sea level on the steep western face above Fruitlands (Fig. 2), over the top of the hill at an average of about 500m (Fig. 7) before falling away

steeply to the shoreline of Lake Roxburgh at less than 200m above sea level. The steep face is best seen from Lake Roxburgh or the Doctors Point Track (Fig. 8) which is a spectacular feature of what was formerly the Clutha Gorge.

Flat Top Hill is a well named feature which can be seen from considerable distances away to the south. To the north the Obelisk block adjoins the DOC Flat Top Hill Conservation Area (Fig. 9). This Conservation Area is important as the site of rare saline soils near Butchers Dam, and as the home of rare and endangered dwarf spring annual plants. Some of these also exist within the Obelisk block on Flat Top Hill which could become an extension of the existing DOC Conservation area.

The single access track climbs steeply up the western face the splits into two as it approaches the top of the hill. Branches head north and south to the lease boundaries. One track peters out at the head of a gully marking the southern boundary. The other track wanders along the gently rolling plateau surface for some 2.5km to the boundary of the Conservation Area which could be entered by a gate. If public access becomes available through the tenure review of Obelisk this track could become part of a round trip including the existing Conservation Area. The plateau surface is an interesting mix of tussock grassland, short turf grassland, shrublands, horizontally bedded schist tors, bedrock outcrops and shallow ephemeral tarns. The eastern edge of the plateau is cut by deeply incised gullies which run down to the Clutha Gorge now occupied by the sinuous Lake Roxburgh.

As a visitor to Flat Top Hill, and particularly for the photographer, the difficulty in finding vantage points from which to view the gorge is somewhat frustrating, but does stimulate one to explore further.

The western face, from about 400m up to 500m (Fig. 2) is characterised by Yellow Grey Earth Roxburgh and Cairnhill soils with frequent bedrock outcrops. The same soils occur on the plateau surface and down the steep face of the Clutha gorge (Fig. 7). The steep parts of the landscape (Fig. 8) have been classified LUC Class VIIe with erosion problems and risk, while the plateau surface is classified LUC Class VIIc due to the shallow soils and drought limitations on pasture production (Fig. 7). It is because of all these soil, topographical and climatic limitations that it is unlikely that this area could be managed in a way that promotes ecological sustainability, as required by the CPL Act. Mainly because of drought limitations and consequently, low pasture production, fertilizer application is likely to be uneconomic. The removals of essential nutrients in animal products have probably not been balanced by the replenishment of soil nutrient reserves: Instead these are being gradually depleted over time. Under these circumstances it is difficult to imagine how pastoral production can be ecologically sustainable.

On the other hand, this rocky plateau and its steep rocky faces (Fig. 8) have high landscape, conservation and recreation values which suggest that it might be considered for addition to the existing Conservation Area adjoining the property to the north. There are other interesting tenure and management options which will be considered later.

RECREATIONAL ACTIVITIES AND POTENTIAL

(a) The Old Man Range

Mason (1988) has described the history and current recreational use of the Old Man Range as follows:-

"The Old Man Range has long been an attraction for winter recreation. This has been due to ease of access to the snowline and proximity to centres of population. In 1953 the Vincent Ski Club was formed in Alexandra with the intention of developing ski grounds on the slopes near the Obelisk above Fruitlands. By modern standards (variety of gradient, vertical height, reliability of operation) there is no potential for skifield development on these ranges. The limited extent of steeper snow slopes can, however, be utilised by more proficient cross country skiers."

Mason goes on to inform readers that:- *"The primary winter recreational potential of the area is for cross country skiing. Ease of access has resulted in the Old Man and Old Woman ranges being among the most frequently used areas in Otago. Road access to the snowline on the Old Man Range provides one of the few opportunities for day trips from Dunedin or Invercargill. The major natural limitation to utilising the vast extent of easy rolling terrain is the severity of weather conditions. A few disused mustering and miners' huts provide some overnight shelter, however due to rapid changes in the weather no reliance can be placed on locating them. Experience in alpine travel and survival are essential prerequisites for safe use during winter. There have been several close-calls, even for experienced parties, in one instance involving survival conditions in a snow trench for several days".*

"A 40 km traverse the length of the Old Woman and Old Man ranges is possible, with an overnight camp. However, no quick escape to low country is available in the event of being overtaken by storm conditions."

Mason adds that:- *"Summer recreation is largely dominated by the use of off-road vehicles and numerically, this activity probably exceeds all other activities. The traverse of the County road between Waikaia and Shingle Creek and along the range crest by trail bike being the major activities on the Old Man Range. Even during summer, riders regularly suffer from hypothermia on these exposed tops."*

There are historic features and scientific trial sites on the Obelisk which add considerable interest and value recreational visitors (Figs. 10 and 11). These are mainly situated not far from the Obelisk Road and are accompanied by signage which explains the objectives and findings of the research. Two of the sites deal with the ecology and management of snow tussock grasslands (Fig. 10), while the third site is that of an experimental snow fence built in 1959 (Fig. 11). The aim of the fence was to trap snow which, after melting would augment the water yield of the Fraser catchment.

The recreational use of Obelisk should be considered in the wider context of public recreation on the Old Man Range, and the development of the Kopuwai Conservation Park. Any assessment of recreational value should include not only present usage, but also future potential usage by trampers, mountain bike and horse riders, and skiers. It is likely that with increasing pressure for new recreational areas and increasing knowledge of this area, together with improved access, usage will increase following the completion of this and other tenure reviews along the range.

Access to and along the crest of the range is the main recreational use at present. Good access is available via the Waikaia Bush Road and via Symes Road to the Obelisk (Fig. 6). These gateways to the emerging Kopuwai Conservation Park provide access to widespread and important recreational resources and opportunities in the Fraser basin and along the Range to link with the Old Woman Range, and in winter to the "Polar Plateau" and the Garvies.

(b) Flat Top Hill

The existing Flat Top Hill Conservation Area and associated Butchers Dam has become a popular recreation area, mainly for day visitors. Most interest is focused in the area of the dam and the relatively short, easy track around the lower slopes of Flat Top Hill on the eastern side of the dam. However, some more energetic visitors and those with interests in photography and botany certainly make use of the hill itself (Fig. 9), and make their way over to the slopes above the Clutha River Gorge, occupied by the sinuous Lake Roxburgh created by the Roxburgh Dam.

If the tenure review of the Obelisk block does result in the plateau coming under DOC control it also opens up recreational opportunities for walking and mountain bike round trips which would include most of the entire Flat Top Hill massif.

The varied and biologically diverse plateau top provides a low altitude destination for people to explore and enjoy the tor studded landscape with all its interesting features including – a mix of tussock grassland, short turf grassland, shrublands, horizontally bedded schist tors and small, flat schist outcrops and shallow ephemeral tarns (Fig. 12). The flat top topography is probably controlled by the horizontal stratification of the underlying schist bedrock (Fig. 7). Deeply incised gullies run down the eastern side of the plateau to the Clutha Gorge (Fig. 13), inviting exploration by those not daunted by the prospect of climbing back to the flat top, some 400m above the level of the Lake.

Visitors to the summit plateau of Flat Top Hill will be intrigued by a large, wooden stable building which appears to have historic significance (Fig. 14). It is certainly a prominent feature in the landscape but it is not genuine. Its history is recent, in that it was constructed towards the end of the last century as part of a film set for a western movie. Some would argue that it should be removed but it still is a curiosity for those with enquiring minds.

SIGNIFICANT INHERENT VALUES AND THEIR IMPORTANCE FOR RECREATION

(a) Old Man Block

This report focuses on those features of Obelisk Station which are important for public recreational interests. It should be noted that while some of this interest focuses on access, the natural and historic values, as well as the landscape of the area 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.

The vegetation and environment of the Old Man Range has been the subject of intensive scientific study by the University of Otago for over 40 years. Much of this work has been undertaken and published by Prof. Alan Mark and his colleagues. A very useful summary was revised by Meurk and Mark (1995). This summary described the vegetation in distinct zones referred to as "*well defined vegetation belts [which] reflect the steep moisture and temperature gradients between the semi-arid basins and semi-saturated, exposed, plateau summits.*" The zones are as follows:-

Montane Zone (150 – 750m) including (I) Exotic Vegetation and Scrub, (II) Semi-Desert Scabweed and (III) Fescue Short Tussock Grassland

Subalpine Zone (750 – 1,000m) including (IV) Mixed Snow/Fescue Tussock Grassland

Low Alpine Zone (1,000 – c. 1,500m) including (V) Tall Snow Tussock Grassland, (VI) Fescue/Blue Short Tussock Grassland, (VII) Blue Short Tussock Grassland and Herbfield

High Alpine Zone (>1,500m) including (VIII) Rock, Fellfield, Cushion- and Herbfield

All these zones are represented with increasing altitude on Obelisk, with the possible exception of the most extreme examples of rock tors, fellfield and cushionfield which are better represented within the Kopuwai Conservation Park which forms the top boundary of the pastoral lease, running along the eastern edge of the summit plateau at about 1,600m.

The transition from tussock grassland to herbfield is abrupt at about 1,400m (Fig. 15) and it is recommended that all land and vegetation types above this level should without doubt be included in land to be returned to full Crown ownership and control on the basis of its very high significant inherent values. This level approximates the level at which the boundary between conservation and freehold land has already been agreed on both neighbouring properties.

Below this level, in the Low Alpine Zone and upper part of the Subalpine Zone there are good examples of tall tussock grasslands in the upper parts of the catchments of both Obelisk Creek and Butchers Creek (Fig. 16). It is noteworthy that at about 900m in both catchments many tributaries converge to form a main stem, as the tributaries flow out of the higher basin area. These basin areas contain the best of the

tussock grasslands and are the areas most deserving protection. Fortunately, the lower boundary of this area is close to the existing fenceline just below the old stone hut. This fenceline would make a good boundary between new freehold and conservation land as has been briefly mentioned above.

In the general description above it was indicated that most of the Montane Zone has been developed for pastoral use (Fig. 4). The soil types and LUC classification also suggest that with adequate regular maintenance it should be possible to manage these lands in a way that promotes ecologically sustainable land use, as required by the CPL Act. They therefore appear suitable for freeholding.

Snowbank communities sometimes survive late into the year at 1,450m in the headwaters of Obelisk Creek and Coal Creek. These provide another dimension for botanists and photographers to explore and enjoy (Figs 17 and 18). Even at this high altitude the land is still within the pastoral lease but should certainly become conservation land with the full protection of Crown ownership and control

(b) Flat Top Hill

The small spring annuals which are present on Flat Top Hill are probably the most significant inherent component of the indigenous vegetation at this site. There are a number of other significant inherent values which also warrant protection. These include shrublands, with characteristic *Olearia lineata*, often associated with rocky refuges, small, shallow, ephemeral tarns with concentric rings of vegetation related to differential moisture regimes (Fig. 12), and a fascinating landscape (Fig. 13). All these features provide interesting subjects for recreational visitors; especially those with interests in landscape, botany and photography.

The landscape has both visual and ecological interest in its small scale variations which include horizontally bedded tor rocks and sections of bed-rock pavement (in places providing habitat for the above-mentioned tarns, Fig. 12), associated shrublands in rocky refuges, and short, steep gullies running down to the Clutha River.

A conservation issue has arisen because the small spring annual plants in the DOC Reserve on Flat Top Hill are getting swamped by rank grass growth and litter accumulation (Fig. 9). There is an argument for controlled grazing to improve conditions for the spring annuals. This is an issue which was raised in the CMS for Otago where one of the objectives on Flat Top Hill is to protect ephemeral spring annuals "using appropriate differential management as required". The acquisition of the Obelisk block adjacent to the existing Conservation Area would permit the employment of differential management techniques to determine the best management strategy for the survival of spring annuals.

However, there is another conservation argument which is to encourage shrubland regeneration by discontinuing grazing. To date the latter has been the management objective in the existing Conservation Area. This strategy is not without its undesired effects. Weed problems are increasing as briar is uncontrolled by animal browsing, and there are a large number of other weed species including broom and wilding pines, present (Fig. 13).

The tenure review of the Flat Top Hill block of Obelisk Station presents a new opportunity to pursue both conservation objectives if the plateau comes under DOC control. Having two adjacent, and otherwise similar ecosystems on Flat Top Hill, would permit the testing of differential management strategies to pursue apparently conflicting objectives. Strictly controlled grazing, accompanied by regular monitoring might be possible under a Conservation Covenant on the Obelisk Block.

AREAS TO BE PROTECTED

(a) Old Man Block

The discussion above suggests that there is a significant area of land above about 900m on the flanks of the Old Man Range with significant natural, landscape and historic values which deserve protection in terms of the CPL Act 1998 (Figs. 3, 5, 10, 15, 16 and 17). The nature of those significant inherent and historic values has been discussed in the previous section and the fact that the front faces and skyline are important features of the Old Man Range seen from SH 8 and the Clutha Valley was referred to in the introduction.

The siting of the possible boundary between potential freehold and new conservation land was also discussed and it was concluded that there are logical reasons why this should be considered along the line of an existing fence just below the Old Stone hut at about 900m.

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 900m is classified LUC Class VIIc or VIIe which means that it has limitations related to climatic factors or erosion hazard. Class VII land has severe limitations for pastoral production and 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.

It is concluded that for reasons related to the significant inherent values of the land above the existing fence just below the Old Stone hut at about 900m (Fig 3), 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.

(b) Flat Top Hill

From the discussion above it is concluded that there are significant inherent values which should be protected. There may however, be differential management strategies which are appropriate for the achievement of different conservation objectives. Some of these require continued, but controlled grazing, especially to encourage the suppression of weeds (like briar), and to suppress rank grass growth. The existing Conservation Area under DOC control enables a study of discontinued grazing by farm animals.

Acquisition of the Obelisk block could provide an opportunity to study the effects of controlled grazing under covenant. This would require strict observance of grazing protocols, strictly imposed stock limitations and regular monitoring to record the effects of differential grazing management.

A serious disadvantage to the recreational public, of the use of covenants to protect natural values, is the lack of secure public access which would otherwise be provided by the return of the same land to Crown control. This disadvantage could be overcome by the establishment of an easement to provide foot and mountain bike access to and along the Flat Top Hill summit plateau track.

It is therefore, considered that in this case, protection under covenant may be appropriate instead of the more conventional recommendation for return to Crown control. This would only be acceptable if accompanied by the establishment of an appropriate easement to provide secure public access.

(a) Old Man Range

The CPL Act 1998 requires "the securing of public access to and enjoyment of reviewable land", and this is required both to and across Obelisk land.

The existing public road up the face of the Old Man Range (Symes Road/Obelisk Road) already serves this function, and provides access to the proposed new Conservation Area.

(b) Flat Top Hill

There is an existing farm track on the Flat Top Hill Block of Obelisk Station which runs up the hill from a gate about 1km east of State Highway 8. Access to this gate from the highway may run across neighbouring freehold land, so public access to the gate needs to be investigated during the tenure review process.

In order to provide public access to the conservation and recreation values of Flat Top Hill itself, an easement for public foot and mountain bike access will be required. This access should run up the hill from the gate and extend along the track on top of the hill to the boundary with the existing Conservation Area. This would then provide an excellent round trip for public use and enjoyment.

OTAGO CONSERVATION MANAGEMENT STRATEGY

(a) Old Man Range

In the Conservation Management Strategy for Otago (CMS) the Old Man - Garvie area is recognised as a Special Place. The objective for this Special Place is:

"To protect the entire high altitude range crests for their landscape, nature conservation, cultural, and recreational importance, to improve legal access to them, and to ensure that recreational and commercial uses are managed to sustain resources and ensure quality recreational experiences....."

It should be further noted that the CMS states that "*Protected areas boundaries will be rationalised by disposals, acquisitions, swaps and other means (including tenure review) to link as far as practicable the existing inland protected areas and areas of indigenous vegetation between them.*" [underlining our addition].

It is also noted that the CMS includes the following statements: (a) "*Pastoral lease tenure review on adjacent properties will provide opportunities to negotiate to protect the entire range crest.*" And (b) "*Continued identification of key natural and historic resources to enable well informed decision making in the pastoral lease tenure review process.*"

Finally, it should be noted that the CMS priority for the Old Man area states that "*Completion of protection negotiations, including tenure reviews, will be a priority in this Special Place.*"

From statements in the CMS, it is clear that DOC is committed to achieving its objectives for the Old Man – Garvie Special Place and that significant progress would be made towards achieving those objectives if this tenure review can be successfully negotiated.

(b) Flat Top Hill

Flat Top Hill is recognised as part of "The Drylands" Special Place identified in the CMS for Otago. The objective for this Special Place is *"To protect a full range of Central Otago lowland semi-arid indigenous landscapes, ecosystems and species along with significant historic resources associated with them, and to provide and manage appropriate recreational opportunities in those settings"*.

It was intended that these objectives would be achieved through a number of implementation statements which included the following which are pertinent to the tenure review of Obelisk Station:-

(d) "Monitoring and protection of the ephemeral spring annuals and other significant indigenous vegetation on Flat Top Hill will be a priority, using appropriate differential management as required."

(f) "Attempt to negotiate the protection of other carefully selected complementary examples of salt pans, other important native ecosystems and key historic sites in the area as they become available, particularly in the context of pastoral lease tenure reviews".

(k) "Identify appropriate mountain biking areas and routes in the area, on land administered by the department".

Finally, it is important to note that the priority for "The Drylands" Special Place is:- *"Facilitating public enjoyment of Flat Top Hill is the immediate [1998] priority. Other priorities are plant pest control to protect priority low stature indigenous communities"*.

It is clear that the tenure review of Obelisk Station presents an excellent opportunity to advance the objectives and priorities stated in the CMS for Flat Top Hill.

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 Sections 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 their Land Use Capability (LUC) Classification of both the Old Man and Flat Top Hill blocks of Obelisk Station have been considered carefully. Arguments have been presented as to why Class VIIe and Class VIIc land cannot be managed in a way that is ecologically sustainable without the replenishment of nutrient reserves depleted by pastoral production and tussock burning. Similarly, arguments have been presented as to why land areas classified LUC Class VIIc on Obelisk cannot be managed sustainably because of natural soil and climatic limitations on pasture production.

The consequence of these arguments is that land above about 900m, classified LUC Class VIIe and VIIc

in the Old Man block should be considered for its high conservation values rather than be disposed as freehold. Similarly that land classified LUC Class VIIc on the Obelisk block should be considered first for its conservation values.

It is recommended that land below the 900m fenceline on the Old Man Block should be capable of being managed "*in a way that is ecologically sustainable*", and that it is therefore suitable for freehold disposal. The future tenure of the Obelisk Block is considered below.

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 reviewable land (preferably) by the restoration of the land concerned to full Crown ownership and control.*" However, the Flat Top Hill situation is unusual in that controlled grazing under the protection of a covenant ("*protective mechanism*") may be appropriate.

The most significant ecological issue on Flat Top Hill is the survival of small spring annual plants. Withdrawal of browsing to encourage shrubland regeneration without allowing the proliferation of woody weeds is another issue. Differential grazing management strategies to address different conservation objectives may be an appropriate way to deal with these issues. This might be achievable under a Conservation Covenant with strict stock limitations and regular monitoring.

There is a major problem for recreation when protection of natural values under Covenant is proposed: the problem is that there is no secure public access to be able to enjoy the natural values as required under Section 24 (c) (i) of the CPL Act. In the case of Flat Top Hill this problem might be overcome by the establishment of an easement for public foot and mountain bike access to and along the summit ridge track as far as the existing Conservation Area boundary. Control of woody weeds would also need to be a condition of a successful Covenant proposal.

It is recommended that Flat Top Hill (approximately 500ha) should be designated Conservation Covenant covenant, with the conditions imposed on stock limitations, regular monitoring, control of woody weeds to guarantee protection of biodiversity and weed control. Provision of an easement for secure public foot and mountain bike access will also be required.

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 significant inherent values on Obelisk Station differ as between the Old Man Block and the Flat Top Hill Block. The latter has been discussed above. On the Old Man Block the values are mainly alpine and sub-alpine vegetation, tussock grasslands and a historic stone hut on the Old Man block.

It has been argued in earlier sections of this report that the high altitude values – snow bank communities, herbfields, cushionfields and tussock grasslands on the Old Man Block, together with the historic stone hut at about 1000m deserve protection by return to Crown control. A boundary between new Conservation Areas and possible freehold disposal was proposed along an existing fenceline at about 900m. That line could be extended across the full width of the property at about the same altitude.

It has also been argued above that LUC Class VII land on Obelisk cannot be managed "*in a way that is ecologically sustainable*".

It is therefore recommended that "*protection of significant inherent values of the reviewable land*" namely, approximately 1,000ha of land immediately above the 900m fence at on the Old Man Block should be "*enabled by the restoration of the land concerned to full Crown ownership and control*" and

classified as Conservation Area. This Conservation Area should subsequently be added to the Kopuwaiti Conservation Park.

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

Access issues have been discussed in the "Access Requirements" section of this report. On the Old Man Range public access is already available via the public road which leads to the TV transmitter tower at the Obelisk. Public foot access and enjoyment of the proposed Conservation Area will be freely available if the recommendations above are implemented. No further action will be required on the Old Man Block.

It has been recommended that the natural values on Flat Top Hill should be protected under a covenant. In order to "*secure public access to and enjoyment of reviewable land*" on Flat Top Hill public foot and mountain bike access will be required.

It is recommended that the Covenant on Flat Top Hill should be accompanied by the establishment of an easement for public foot and mountain bike access over the existing farm track to and along the summit ridge of Flat Top Hill, as far as the boundary with the existing Flat Top Hill Conservation Area.

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 Obelisk which have been assessed to be capable of being managed "*in a way that is ecologically sustainable*".

Accordingly, it is recommended that land below the existing fence at about 900m on the Old Man Block 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 "The Drylands" which includes Flat Top Hill. If the recommendations made in this report are adopted and implemented significant progress will be made towards the achievements of those objectives.

ACKNOWLEDGEMENTS

FMC is grateful for assistance from the Crown Agent in making the assessment possible. The site inspection was carried out on two separate occasions in January 2010 and FMC is grateful to the runholder, Allistair Campbell of Earnscleugh Station for co-operation and granting permission for access.

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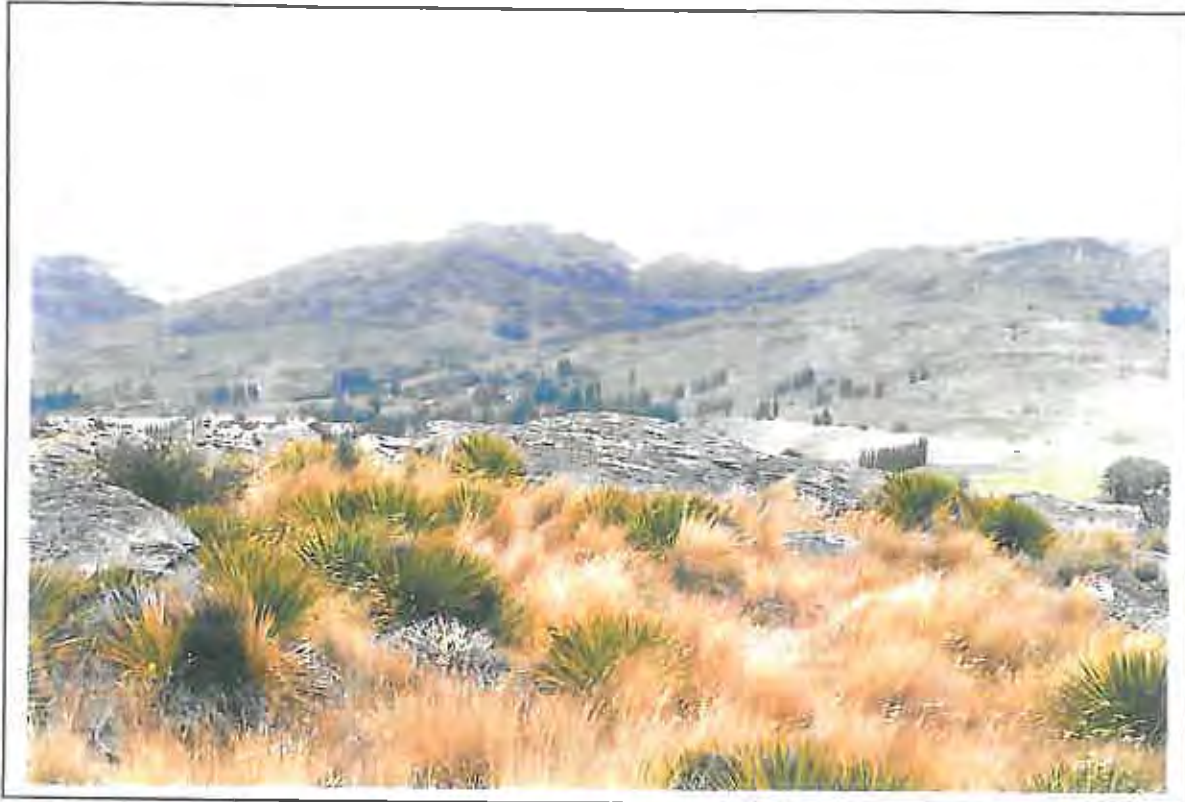


Fig. 1 Looking west from about 500m above sea level on the Flat Top Hill block of Obelisk Station, across Fruitlands to the freehold properties below Mitchells Cottage. Above about 600m can be seen the lower and mid slopes of the Old Man block of Obelisk. The top blocks are obscured by cloud above about 1,200m. Earnsclough Station lies to the north (right) and Obelisk Creek to the south (left), in this view.



Fig. 2 The west face of Flat Top Hill is prominent when viewed from Fruitlands and SH 8 between Roxburgh and Alexandra. Above the lower boundary fence at about 400m, the steep slope includes a mix of pasture grass, thyme, other shrublands and many schist rock tors on the upper slopes and skyline. This landscape should be protected from adverse effects of subdivision and inappropriate developments.



Fig. 3 The gold mining around Fruitlands, and Mitchells Cottage on Symes Road are well known, but less well known is another cottage built by the Mitchell brothers in the gold mining days. This is situated at about 1,000m, a little to the south of the Obelisk access road. This hut should be protected as it has historic significance and recreational importance, having been restored for use as a ski hut by the Vincent Ski Club in the 1950s.

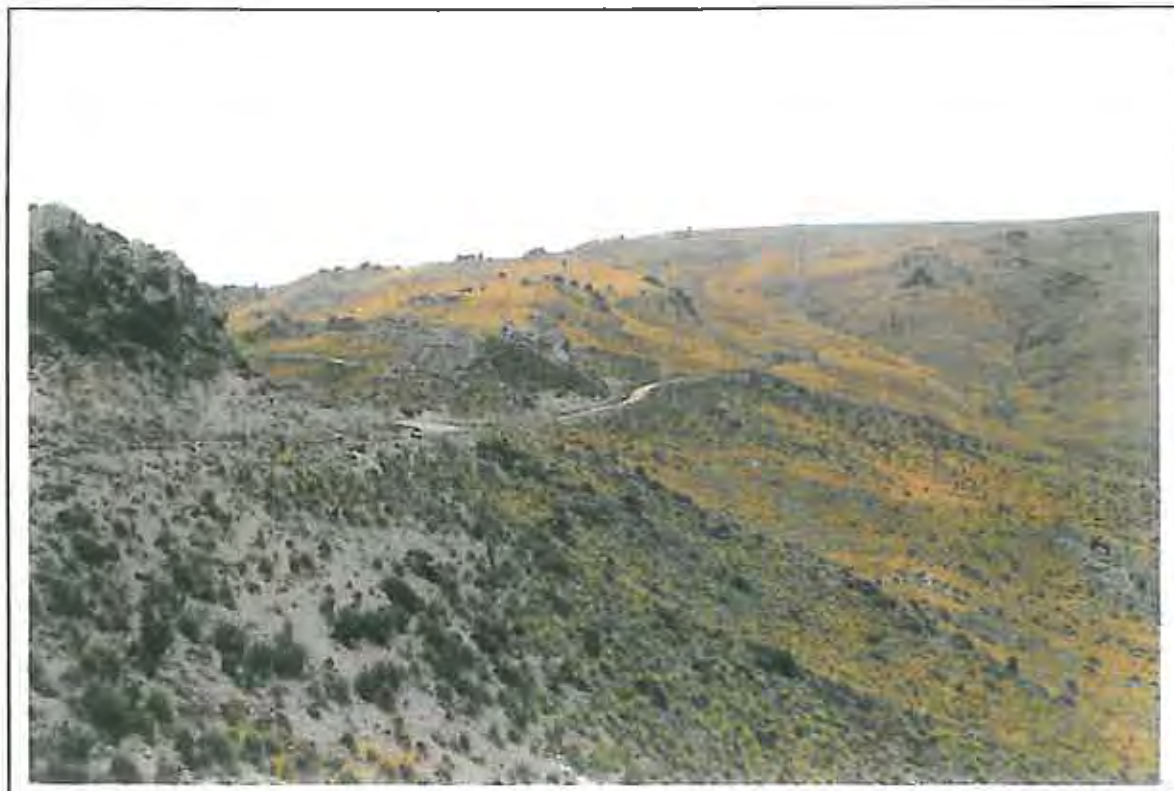


Fig. 4 The lower slopes are characterised by Yellow Grey Earth soils classified LUC Class VI, with medium suitability for pastoral use. The view here, at about 800m, shows short tussock grassland which has been oversown and topdressed. With continuing maintenance fertiliser to replace nutrients removed in animal products and lost through burning, the land should be capable of supporting ecologically sustainable pasture production.



Fig. 5 The higher country, seen here at 1,400m is characterised by High Country Yellow Brown Earth soils classified LUC Class VIIe and VIIc with severe limitations to pastoral production due to erosion risk and climatic limitations. Such land cannot support ecologically sustainable pastoral production. Instead the significant inherent landscape and natural values should be protected by return to Crown control.

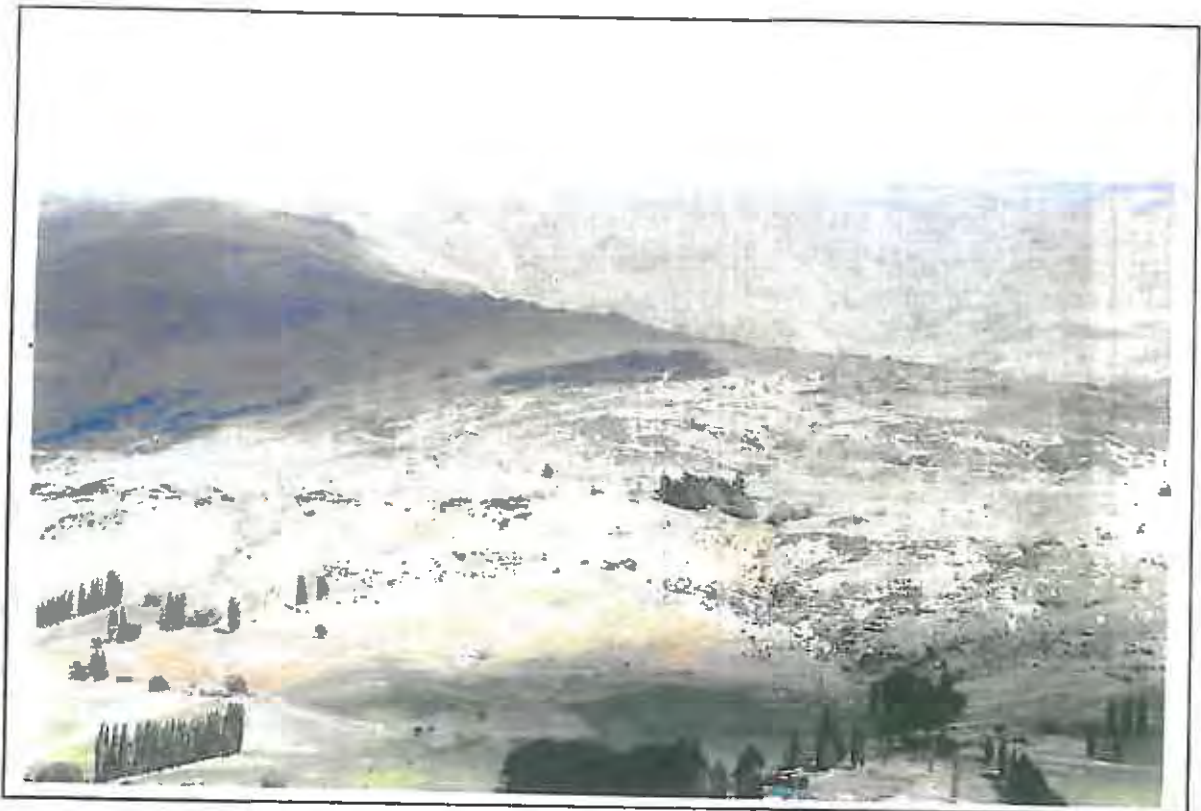


Fig. 6 The main access to the Kopuwai Conservation Area, including the Fraser Basin, Hyde Rock and the Obelisk itself, is up the road built in the 1970s for the construction of the TV transmitter at 1,695m above sea level. This road runs up the prominent spur between Obelisk Creek and Butchers Creek and provides good access to Obelisk pastoral lease as well as the public conservation land beyond.



Fig. 7 Flat Top Hill is well named as it is a gently undulating plateau studded with horizontally bedded schist tors and exposed bedrock. It drops away steeply to the Clutha gorge (now occupied by the sinuous Lake Roxburgh) in the middle distance. Beyond the gorge to the east, can be seen the skyline of the Knobby Range.



Fig. 8 The steep eastern face of Flat Top Hill is best seen from Lake Roxburgh or, as in this view, from the Doctors Point Track. The highest point is at 570m and the face drops steeply over a distance of less than 1,000m to only about 150m above sea level at the lake. This makes for spectacular scenery but very low productive value on a gradient of about 40% with shallow rocky soils. It is better to be protected for its high conservation values.



Fig. 9 The Flat Top Hill block of Obelisk Station is bounded to the north by the Flat Top Hill Conservation Area managed by DOC, which is seen beyond the fence, with its eastern face running down to Lake Roxburgh. The basic landscapes and ecosystems of both blocks are similar and could provide the resources to test a number of differential management strategies designed to achieve different conservation goals.



Fig. 10 Studies of the ecology and sustainable management of tussock grasslands have been carried out on the Old Man Range by Otago University since trial plots like this were established in 1960. These plots have great scientific value and are also of interest to recreational visitors to the area. On-site signage explains the objectives and findings of the studies. These plots should be included within a new conservation area designated on Obelisk Station .



Fig. 11 An experimental snowfence was built in 1959 by the Otago Catchment Board to test the capture of snow which, after melting, could augment the water yield of the Fraser Basin, rather than blowing over the crest of the Old Man Range. The fence has stood the test of time and recent signage explains the purpose of the structure to interested visitors to the Kopuwai Conservation Park.



Fig. 12 The varied and biologically diverse top of the Flat Top Hill block provides a low altitude destination for people to explore and enjoy the tor studded landscape with all its interesting features including – a mix of tussock grassland, short turf grassland, shrublands, horizontally bedded schist tors, flat schist outcrops and shallow ephemeral tarns. Flat Top Hill could provide a round trip when combined with the existing DOC Flat Top Hill Conservation Area.



Fig. 13 Deeply incised gullies run down the eastern side of the plateau to Lake Roxburgh in the Clutha Gorge, inviting exploration by those not daunted by the prospect of climbing back to the flat top. One of the problems of this block are woody weeds, including briar, broom and wilding pine, control of which should be a condition of the proposed Conservation Covenant.



Fig. 14 Visitors to the summit plateau of Flat Top Hill will be intrigued by a large, wooden stable building which appears to have historic significance. It is certainly a prominent feature in the landscape but it is not genuine. Its history is recent, in that it was constructed towards the end of the last century as part of a film set for a western movie. Some would argue that it should be removed but it still is a curiosity for those with enquiring minds.



Fig. 15 The transition from tussock grassland to herbfield is abrupt at about 1,400m. The vegetation here consists of a herbfield dominated by several species of *Celmisia*, together with dwarfed mats, cushions and turfs with many families of alpine plants, mosses and lichens represented. At the highest levels these are associated with patterned ground, but such phenomena are mainly confined within the Kopuwai Conservation Park, above the top boundary of Obelisk Station.



Fig. 16 In the upper catchments of Obelisk Creek and Butchers Creek there are good examples of tussock grasslands which warrant protection within the area between about 1,000 and 1,400m, and which should be returned to Crown control. The tussock grassland in this view includes a wetland flush and evidence of past burning.



Fig. 17 Snowbank communities sometimes survive late into the year at 1,450m in the headwaters of Obelisk Creek and Coal Creek. Even at this high altitude the land is still within the pastoral lease but should certainly become conservation land with the full protection of Crown ownership and control. Here botanists are oblivious of mist and cold driving rain as they examine the most recent plants to emerge from the snow cover.



Fig. 18 Searching snowbank communities in adverse weather conditions is often rewarded with fascinating finds. Here intrepid botanists have discovered a rare specimen (the only one in the whole area) of *Nertera balfouriana* at 1,450m beside a dwindling snowbank in the head of Coal Creek.

CENTRAL OTAGO RECREATIONAL USERS FORUM

186 Faulks Road,
RD 2,
Wanaka 9382.

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

Dear Tony

Tenure Review Reports: Beaumont Station and Obelisk

CORUF thanks you for the opportunity to comment on these Leases.

I was unable to make the Station visits in February so will limit these comments to matters of principle, based on the experience we already have of these two properties.

I hope that these comments are helpful to you.

I apologise again that they have arrived so late, some personal events have intervened.

Jan Kelly
Secretary
Central Otago Recreational Users Forum.

OBELISK PASTORAL LEASE PO 264

CORUF is concerned to have Symes Road retained as full public access, regardless of its relationship to the legal road line. We suggest

1. that the present road line around and above the hut be declared the legal road
2. (we note that the Council has kept this road in order despite that fact that it is not always on its alignment, and that ratepayers tax dollars have been spent on it, more or less, for many years now.)
3. that Symes Road be open to public use 365 days per year, without restrictions on type of use. The road surface will determine actual use, and users are very knowledgeable about what is required.
4. that the road is valuable to us summer and winter, for summer access for hiking and exploring and visits to historical artifacts; and for winter sports, including back country skiing, snowmobiling and winter photography on the Old Man Range.
5. that as far as access to the Old Man Range, to Kopuwai Conservation Area is concerned, this road is of critical importance for all of the community and that there is no viable substitute.
6. that the Historical remains on the front face of Obelisk Lease are of significance and should be preserved in public care
7. that White's Hut is especially valuable as an historical artifact, and that its open tussock environs should be conserved along with the hut, permanently placing the hut in its pastoral context
8. that White's Hut should remain in the public domain and be adequately protected as an historical artifact, along with other mining remains in its vicinity
9. that while road access to the snow line is required and desired by us, there is also a case to include a public parking area at a lower level for those who are not comfortable with driving the whole distance
10. that the public conserved lands should include all land at and above the level of White's Hut. This is a wonderful tussock environment that, while it has been modified by farm use, would easily recover to its natural state given time and full protection
11. that we agree with the retention of grazing on the tops of the Flat Top Hill section of the Lease, to aid in the health and continuance of the rare Spring Annuals
12. that the gorge faces are a separate case, as a distinctive landscape element requiring protection in the context of the whole gorge
13. that it should be kept in mind that the New Zealand Cycle Way (Roxburgh Gorge) will occupy the river bank at the base of this block, and that a great many people, both local and international, will subject it to regular use, at any time of the year.
14. that an exit route from the NZ Cycle Way, for foot and for pushing a bike, could be created up the gorge face within this block
15. that full public ownership of the reserved land is the only outcome acceptable to us and that we do not support all-farm covenants in lieu of public ownership

JK

From: forsyths@clear.net.nz [mailto:forsyths@clear.net.nz]
Sent: Friday, 23 April 2010 3:12 p.m.
To: Subject: Tenure review meeting, Alexandra, 27APR2010

Dear

I have no personal knowledge of the recreational hunting interest in the Obelisk area, although I suspect that hares and sundry wild animals will exist there. Access both physical and legal would be desirable for vehicles for recreational hunting purposes, under certain conditions which will need to be reviewed by both parties to ensure fairness.

Yours faithfully,

Chaz Forsyth
Executive member
South Island
New Zealand Deerstalkers' Association (Incorporated)