

Crown Pastoral Land Tenure Review

Lease name : HAPPY VALLEY

Lease number : PO 361

Conservation Resources Report - Part 6

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

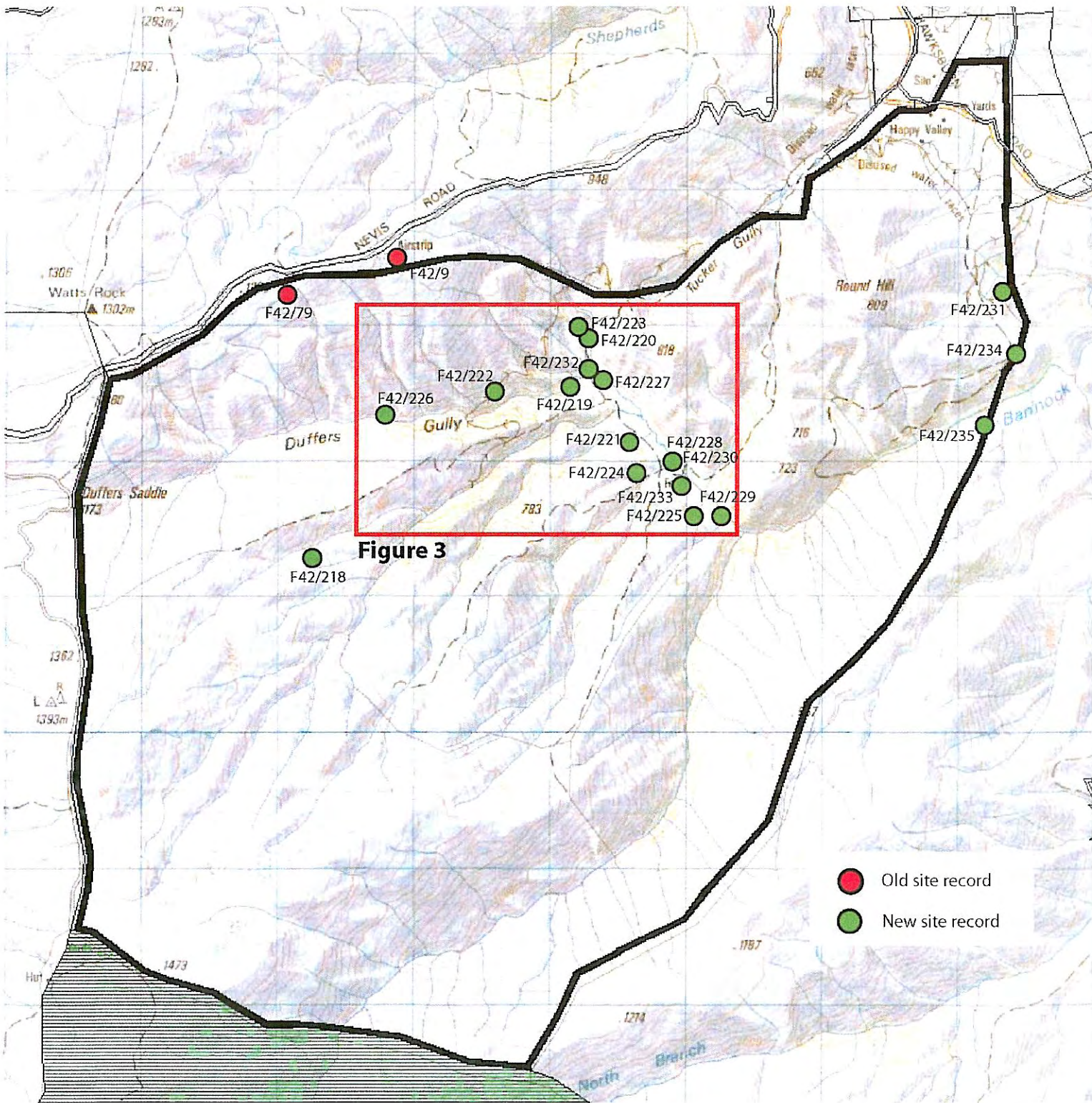
Note: Plans which form part of the Conservation Resources Report are published separately.

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

August 06

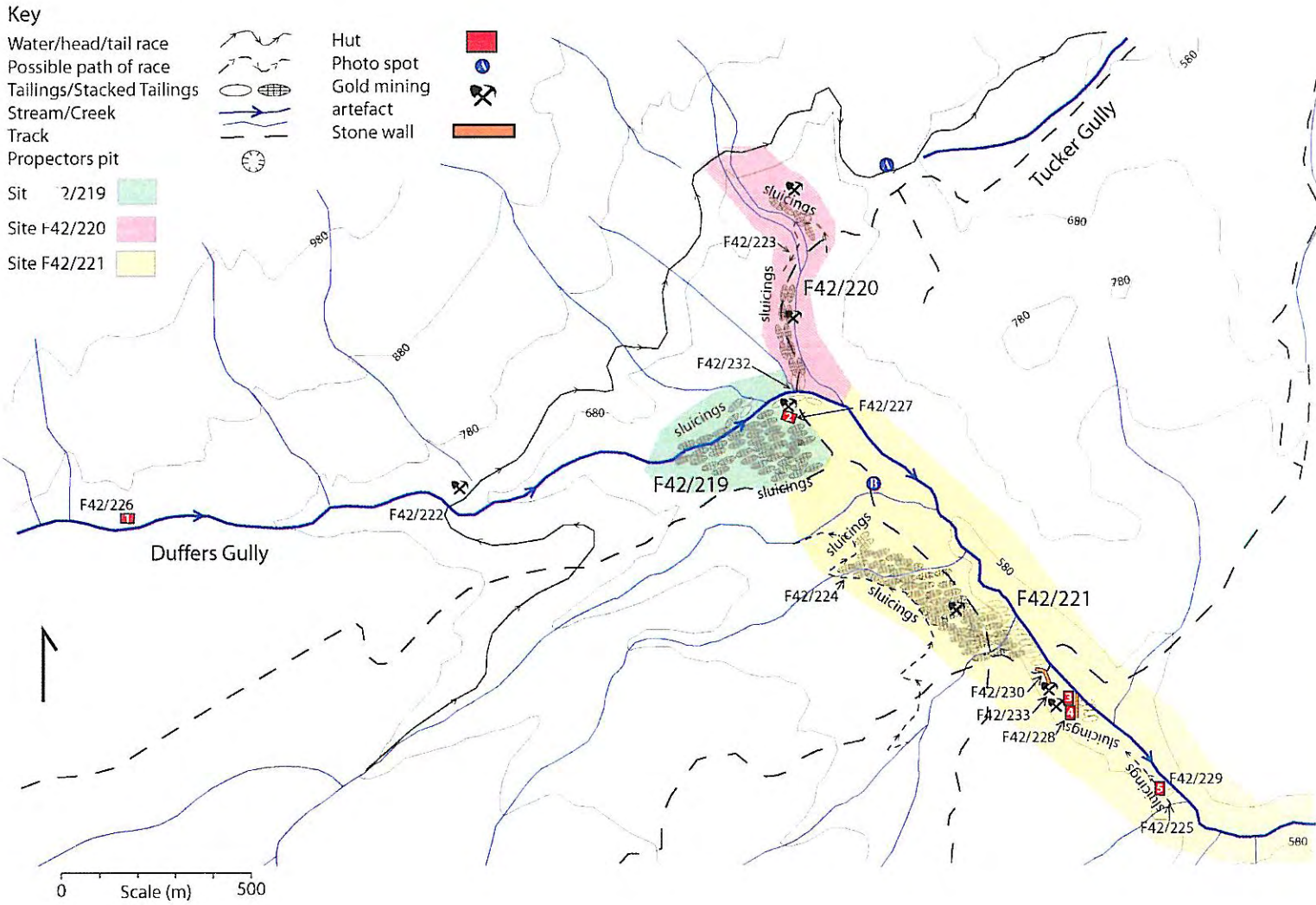
APPENDIX 12

Happy Valley PL showing property boundaries and archaeological sites recorded prior to (red dots) and during (green dots) the Tenure Review field survey



APPENDIX 13

Close view of archaeological sites in Duffers Gully



APPENDIX 14

NGO Reports and Comments

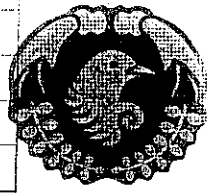
- **Upper Clutha Forest and Bird**
- **Central Otago Recreational Users Forum**
- **Federated Mountain Clubs of New Zealand**
- **Central Otago Deerstalkers Club**
- **Southern Lakes Deerstalkers Club**
- **Professor Alan Mark**

20th April 2006

Upper Clutha Branch
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The Manager Tenure Review
Department of Conservation
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DUNEDIN

B.S.M.	
T.S.M.	
H.R.A.	
H.C.T.R.M.	
K.A.M.	
OTHER	



FOREST & BIRD

ROYAL FOREST AND
BIRD PROTECTION
SOCIETY OF
NEW ZEALAND INC

DEPT OF CONSERVATION
OTAGO CONSERVANCY
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RECEIVED

COPIED
to Tony
26/4
Dunn

Dear Tony

HAPPY VALLEY- An early report.

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

We thank you for inviting us to comment on this property; as per section 26 of the CPLAct 1998 - Consultation. We believe as the Tenure Review process is in effect the final disposition of New Zealand's pastoral land, every endeavour should be made to get it right. It is appreciated that Mr Henderson the Lessee allowed us to fully participate in the process and allowed us to inspect the property on the ground.

We would be pleased if you would accept these comments on it as part of the Consultation process of Tenure Review.

As you will be aware our branch of Forest and Bird, as does the whole Society, fully supports the Crown Pastoral Land Act 1998 and also the complementary objectives to that act announced last year. (Please refer to EDC Min 5/3; CAB Min (03) 11/5)

These are:-

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

In this review of Happy Valley we must fully consider the final outcome of the review as being part of Government's intention:

"To secure public access to and enjoyment of high country land for the public to enjoy".

And: *"To progressively establish a network of parks and reserves".*

When we consider the above two statements, especially the latter, we must also consider the outcomes of other neighbouring properties that are also in the process, even though the CPLAct 1998 does require that each property be considered individually.

1. General:

- This property lies facing north on the east side and northern end of the Old Woman Range. The lower country could be considered as warm country
- It rises from about 450ms at the Hawksburn road to 1473ms at the highest point on the Old Woman Range.
- It was part of the original Kawarau Station which was subdivided in 1910. At that time it would have been degraded with rabbits; and sweet briar would have been coming onto the scene. The rabbits have been an ongoing managerial problem for this type of country from day one.
- There is a small area of country, somewhat less than 100ha, which can be cultivated and irrigated; this is class IV land.
- The lower country has been fenced into smaller blocks and has become mostly modified. Vegetation is better on the darker faces, containing some short tussock. This country from, and including Round Hill to about 1000ms is classed as VII
- The woody vegetation in the gullies is mostly matagouri on the sunny faces and coprosma on the more shady faces. (See Photos # 1&2)
- The land above approximately 1000ms in the top block still retains a tussock grassland landscape appearance; this land is classed as VIIe. The tussock is very good in places and but somewhat sparse in others near the Nevis road at the head of Duffers creek and at the very highest point. (See photo # 3)

2. Inherent Conservation Values:

- Happy Valley has considerable conservation values in its landscape - it is typical "Central Otago" with its somewhat semi-arid appearance and scrubby gullies. It is very visible to the public as seen from the Nevis Road on the way to Duffers Saddle.
- Where at its highest point it backs on to the Old Woman Conservation Area it has conservation values in its remnant tussock; although thin on the ground they are a seed source for future recovery. (See Photos # 4)
- The sub-alpine cushion and herb-fields, and at the head of Bannockburn there is RAP 1/5 Bannockburn. That this area is categorised as 1 is very significant.
- There are historic mine workings on this property that will have to be taken into consideration in this transference of interest, particularly those where Duffers Creek takes an almost right hand turn. These mine workings include a well preserved stone hut. (See Photo # 5)
- Happy Valley has considerable value in the ecology of the shrublands between and around Bannockburn and Duffers creek below about 1200ms; there being skinks, geckos and lizards present in spite of pastoralism over many years.

3. Access and Recreation:

- The water races in the lower part of Bannockburn on the property are of considerable interest engineering and historically wise and well worthy of walking to the inlets to see them. Access for this type of recreation should be more than seriously considered. (See Photo # 6)
- If the stone hut in Duffers Creek is worthy of preserving, and we believe it is, it is well worthwhile the public having access to it to enjoy. In this case we would suggest that the present tracking system from the Hawks Burn road up Tuckers Gully and over the saddle where the Duffers Creek water race passes through, down to the hut, then down Duffers Creek to where the track leaves and climbs the valley around the hill, spot height .818 and back to Tuckers Gully should be considered for public walking access. This route will require permission of two other property owners at present, or, the outcome from other neighbouring reviews being favourable to it.
- There is already a legal road running south from Duffers Saddle to the already established Old Woman Conservation on the south east corner of Happy Valley in the vicinity of RAP 1/5 Bannockburn. It is quite probable that the present formation is not on the surveyed legal road but there is no reason why this cannot be rectified when this property and others in the vicinity complete the tenure review process. To fit in with Government's intentions of "*establishing a network of parks and reserves*".
- As this access already attracts parties interested in botany and other nature subjects also those interested who enjoy outdoor recreational pursuits in the high country the upper areas of Happy Valley would be a valuable addition to the Old Woman Conservation Area.

4. Land to Being Considered for Freeholding:

- The mainly Class VII land below about 1000ms has been used for pastoral purposes for many years in spite of it being prone to very dry conditions and plagues of rabbits.
This means that it has been very difficult to manage at times in the past and will continue to be so. However, the property is in the process and decisions will be required to be made.

5. Discussion and Suggestions:

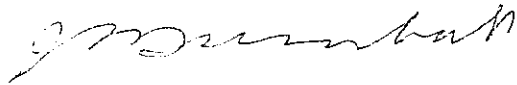
- Government in the mid nineteen-eighties went to some considerable trouble and expense to conduct PNA surveys and recommended certain areas for protection, such as RAP 1/5 Bannockburn on this property. We see no sense in ourselves enumerating the considerable significant inherent values in this RAP but we consider heed should be taken of the work other people did as these surveys were conducted by competent people. This review is the proper time to give full protection to this area as suggested and be returned to full Crown Control for protection.
- Also in this review all that land above approximately 1000ms should be returned to the Crown for protection as we cannot see any of this land being ecologically sustainable, even if fertiliser is applied to replace the nutrients taken off the place in the shape of meat and wool, as also, we cannot see it being economically viable.

-4-

- As government has repeatedly stated its intentions: *To secure public access to and enjoyment of high country land for the public to enjoy.* We believe now is the time to make available public walking access to the water race inlets, the mining relics and stone hut as suggested above in this submission.

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

Yours faithfully



John L Turnbull
For Upper Clutha Branch

Photos attached.

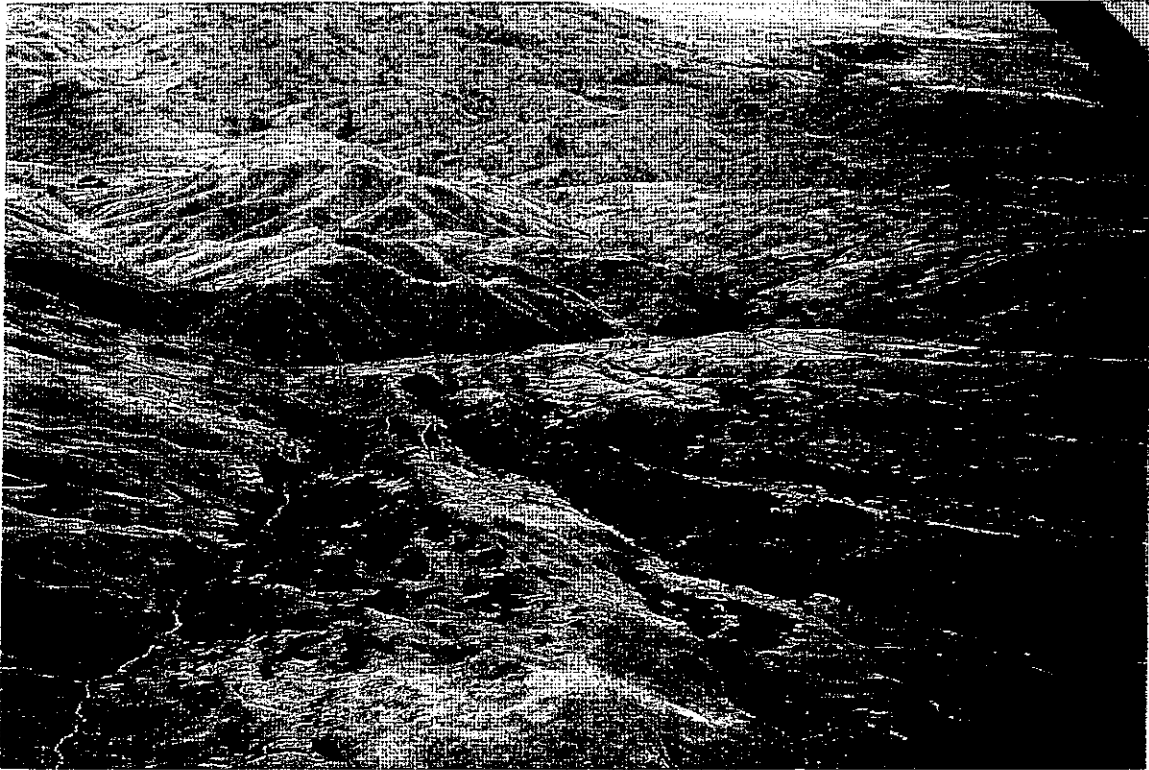


Photo # 1. Photo taken from above the head of Duffers Creek looking towards Round Hill. It shows the amount of woody vegetation present, mostly in the incised gullies, and the drier north western slopes of Round Hill.

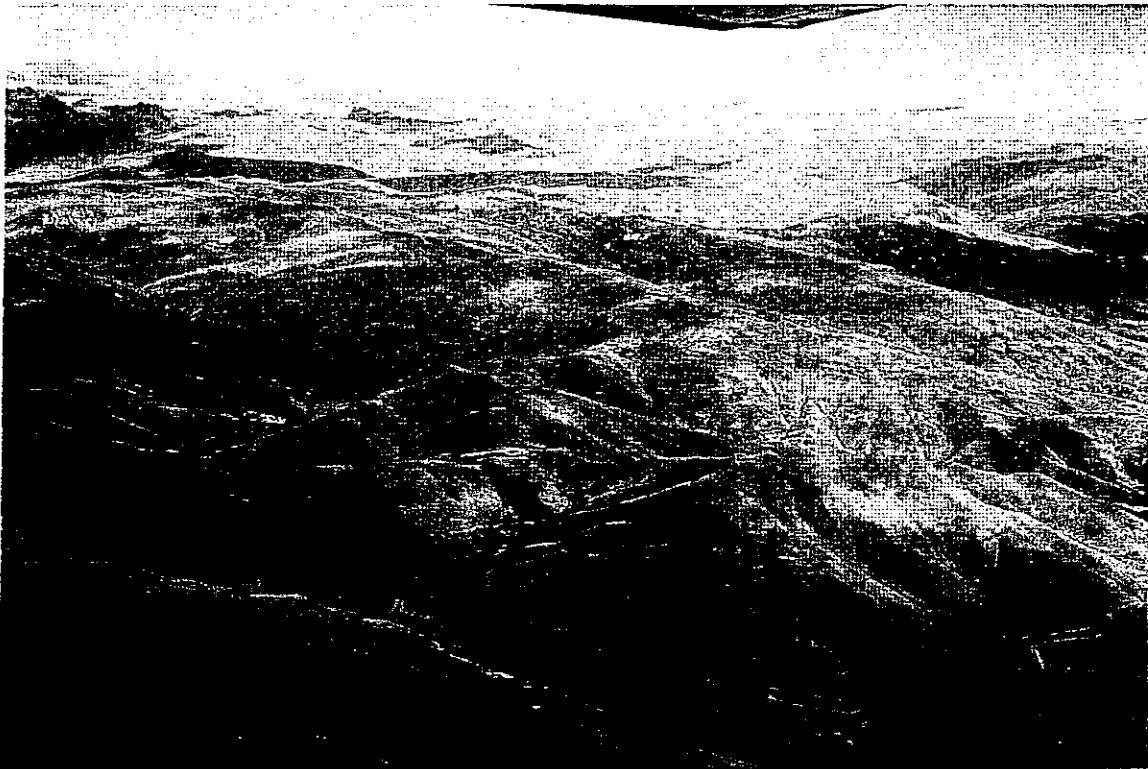


Photo #2. Shows further the woody nature of the country, the darker lying country on the slopes of Round Hill being better covered. In the foreground is Bannockburn showing the water races coming from their inlets on that creek.



Photo # 3. Shows the nature of the country at the higher levels where the Bannockburn district water race passes through Duffers Saddle. The patch of tall tussock in flower gives an indication of what the country would have looked like originally. This country cannot be described as ecologically sustainable as it would not be economically viable to top dress with fertiliser.



Photo # 4. Photo taken in the vicinity of the highest point on the property 1473ms in the RAP 1/5 Bannockburn and next to the Old Woman Conservation Area. The remnant tall tussock gives an indication of what it was in the past and could be in the future if retired from grazing. It is country that should be returned fully to the Crown for protection.



Photo # 5. Stone miner's hut in Duffers Creek, well worthy of protection. Also well worth a walk to inspect..



Photo # 6. Track to the inlets of the water races in Bannockburn. These kind of places are well worth allowing the public access to, for them to enjoy

CENTRAL OTAGO RECREATIONAL USERS FORUM

CONS	
A.M.	25 April 2006
C.R.M.	
H.S.M.	
T.S.M.	
H.S.A.	
T.C.R.	<i>ell</i>
Other	

*Debbie
please copy to Kate
for Robrosa and Rob/Tim
as needed for the others.
Thanks
Tony
28/4*

*Jan 1, 5.06
Helen*

Helen James,
Administrative Officer
High Country Tenure Review
Department of Conservation
PO Box 5244
DUNEDIN

Submission by NGO, Central Otago Recreational Users Forum, to DoC's preliminary report on Tenure Review proposals for Robrosa, Happy Valley, Glenroy Special Lease and Lauder.

Dear Helen,

The Central Otago Recreational Users Forum thanks you for the opportunity to comment on DoC's planned submissions to the Tenure Review process for the above properties.

Having attended the NGO meeting held in Alexandra on April 12th, we would like to offer the opinions outlined below on behalf of our members.

With thanks,
Yours faithfully,



Ian Kelly

Secretary
Central Otago Recreational Users Forum

186 Faulks Road, RD 2, Wanaka 9192
email ejkelly@clear.net.nz

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HAPPY VALLEY, Bannockburn

Recommendation:

1. Easement

- A valuable loop-walk for foot or bicycle could be created on this property, beginning from a parking area on the adjacent public road to the Nevis Valley: following the disused water-race through Duffers Gully, with explanatory material on the historic remains there; exiting up the ridge to the side road that leads towards the Old Woman Range, and returning downhill again via the public road.
- The property would also lend itself to a mountain bike route for enthusiasts. We are aware that bikers have used the property already, with permission, and feel that if the owner was agreeable, designated areas on this land could probably stand this activity.

2. Historic values

- If the Duffers Gully historic area is to be properly preserved and protected, then limited access to it is an advantage, and is to be recommended.

Central Otago Recreational Users Forum April 2006



FEDERATED MOUNTAIN CLUBS OF NEW ZEALAND (Inc.)

P.O. Box 1604, Wellington

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OTAGO CONSERVANCY
26 APR 2006
RECEIVED



23 April 2006

Tony Perrett
High Country Tenure Review Manager
Department of Conservation
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*sent to
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27/4
J. Jones*

CONS	
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C.R.H	
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H.C.T.R.M	✓
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Dear Tony

**Re FMC Reports on Recreation and Related Significant Inherent Values
On pastoral Leases starting Tenure Review in 2005-2006**

On behalf of FMC, I have been preparing Reports on the recreational and conservation values of properties which have entered the Tenure Review process in the 2005-2006. The four properties concerned are: Happy Valley, Robrosa, Lauder Station and the Glenroy Special Lease.

I understand from the recent NGO Report-back Meeting that you prefer these reports in electronic form this year. I have now sent the FMC reports for these 4 properties in the form of e-mail attachments.

As these reports also included colour illustrations I am sending you hard copy versions of all 4 reports complete with the colour Figs which are included in each report.

These Reports are offered as the FMC contribution to the statutory consultation process undertaken by the Department in 2006. We hope that these Reports will be helpful to you in developing tenure review proposals for these pastoral leases. We look forward to commenting on the Preliminary Proposals in due course.

Yours sincerely

Dr Michael J S Floate
FMC Tenure Review Co-ordinator, Otago/Southland.

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Opus International Consultants Ltd.
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ALEXANDRA



FEDERATED MOUNTAIN CLUBS OF NEW ZEALAND (Inc.)

P.O. Box 1604, Wellington

1931
75
years
2006

PASTORAL LEASE TENURE REVIEW

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

HAPPY VALLEY

April 2006

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 HAPPY VALLEY, WITH
RECOMMENDATIONS FOR THE OUTCOMES OF TENURE REVIEW.**

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

April 2006

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LIST OF FIGURES

Fig. 1. The homestead and the best of the farm land on Happy Valley is situated in the Bannock Burn valley. It is well seen why Bannockburn is sometimes called 'the heart of the desert'. The semi-arid landscapes in the background (mainly on Hawksburn Station) illustrate the twin problems of drought stress and rabbit infestation.

Fig. 2. The back boundary of Happy Valley rises from 1,173m at Duffers Saddle (middle distance in this view) to 1,473 at the highest point on the boundary with the Old Woman Conservation Area. The land is classified LUC Class VIIe with severe limitations for pastoral use but its natural and landscape values are much higher. It is unlikely that such land could be managed in a way that promotes ecological sustainability.

Fig. 3 Much of the lower country is steep, semi-arid and has only low pastoral value (LUC Class VII) because of frequent drought stress and rabbit problems, as seen in this view of Round Hill. If the rabbit problem can be contained it may be possible to manage this land in a way that promotes ecological sustainability. If this can be done the land may be suitable for freeholding.

Fig. 4. A sequence of soils with increasing moisture status extends from the semi-arid lower slopes in Duffers gully to the tussock tops on the skyline. The mid-altitude country, with Arrow and Blackstone Hill soils (LUC Class VI), offers the best prospects for pasture improvement. This land should be able to support ecologically sustainable pastoral use, thus making the land suitable for freeholding.

Fig. 5. Most of the higher country, above about 1,000m, is either tussock grassland or sub-alpine herbfield and cushionfield characterised by Carrick Hill and Dunstan Steepland (LUC Class VIIe). Such land has severe limitations for pastoral use but has highly significant inherent values.

Fig. 6. Protected Natural Area (PNA) survey identified an area in the upper reaches of the Bannock Burn as a first priority RAP. The survey report stated that "*The vegetation contains a full altitudinal sequence of communities from montane tussock and scrub through to high alpine cushionfield. Cushionfield is widespread across the upper plateaux and east around the head of the Bannock Burn.*" This view shows part of the upper plateau at the head of the Bannock Burn.

Fig. 7. The track from the Nevis Road down to Duffers Saddle and along to Mount Black is well used by cross country skiers in the winter and could be more popular with trampers and mountain bike enthusiasts in the summer months. Public access to and along the Old Woman Range from the Nevis Road is one of the most critical issues in this tenure review.

Fig. 8. Beyond the yards at the SW corner of Happy Valley, the access is through the Old Woman Range Conservation Area and is therefore available to the public. The hut illustrated here is situated in the Conservation Area and is particularly important for enjoyment of the Old Woman Range in winter.

Fig. 9. The historic remains in Duffers Gully include a charming old stone cottage which has been kept in good repair and which could be enjoyed by recreational users as a lunch stop on either sweltering hot days, or cold wet days. The whole area including the hut and gold mining relics should be designated Historic Reserve with public access. Controlled grazing might be permitted to continue.

Fig. 10. This area in the mid reaches of Duffers Gully gives the feeling of an 'oasis' among a 'desert' of semi-arid hills and is clearly a special destination for those privileged to go there. It is not only in stark contrast to its parched surroundings, but also abounds in history, dating back to the goldmining days of the 1870s. FMC believes this would be a great destination for day trips from the Hawksburn Road.

Fig. 11. An easy walking trip for locals would be to follow the historic Carrick Race, which would give access to the well known Young Australian water wheel on the neighbouring Carrick Station. The race passes below the big tor in the centre of this view and continues around the contour, northwards to the Carrick Station boundary (off to the left of this view).

Fig. 12. Exploration of the water race in the mid reaches of Duffers Gully would add another dimension to the day walk to the stone cottage in Duffers Gully. Such exploration would enhance the public knowledge and appreciation of the efforts made by the early gold miners. This race passes through the saddle between Duffers Gully and Tucker Gully.

Fig. 13. The lower reaches of Bannock Burn are enclosed within a steep-sided gorge. There are native shrublands in the gorge, albeit invaded by briar, which are traversed by a pair of water races. A contoured road gives easy access which the public might enjoy if an easement could be provided across the farmland.

Fig. 14. This is an area of high natural and landscape value in the top block of Happy Valley between the Nevis Road and the rim of the Bannock Burn catchment. It consists of tussock grasslands and fellfield with cushion and snowbank communities and tors, very similar to that described in the RAPI/5. This area should also be returned to full Crown ownership and control to be managed for conservation and recreation purposes.

INTRODUCTION

This report has been prepared following the Early Warning Meeting in September 2005 at which the properties entering the tenure review process in 2005 were introduced. An inspection of the property by the author of this report was carried out in February 2006 with the permission of the runholder. 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.

Happy Valley (Po 361) is a relatively small pastoral lease of 3,277ha at the northern end of the Old Woman Range. This report focuses on those features of Happy Valley 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 and landscapes 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 natural, historic and landscape values in this report. The landscapes and views to be seen from the high country overlooking Lake Dunstan, the Clutha valley and the Hawksburn country are outstanding and add greatly to the enjoyment of visiting this property.

The higher country of Happy Valley is situated in a commanding position overlooking Cromwell and Lake Dunstan. It includes the entire catchment of Duffers Gully and most of the catchment of the Bannock Burn. Its northern boundary is close to the Nevis Road while its western boundary runs along the crest of the range, bordering Craigroy Station on the Nevis side. The high country at the back of the property includes Duffers Saddle and the Carrick Water Race. In fact, water races are a characteristic feature of the property with races used during the gold mining era and more recently bringing irrigation water out of the Bannock Burn for farms in the Bannockburn area.

Protected Natural Area (PNA) surveys conducted in the 1980s identified an area in the upper reaches of the Bannock Burn as a first priority Recommended Area for Protection (RAP). This will be considered below in the section on significant inherent values.

METHODS OF SURVEY AND ASSESSMENT

This report is based on the author's February 2006 field inspection and in part, on information gathered from other sources. The other sources include studies of topographical and Land Use Capability (LUC) maps, consultation with recreational user groups and a knowledge of the landscapes seen from the Bannockburn/Cromwell area and from the Nevis Road. 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 in the recreation section below. The Conservation Management Strategy for Otago and the Survey Report for the Protected Natural Area Programme, Old Man Ecological District (1986) have also been used as sources of reference.

GENERAL DESCRIPTION OF HAPPY VALLEY

Happy Valley (Po 361) is a relatively small pastoral lease of 3,277ha situated at the northern end of the Old Woman Range between the Nevis Road and Hawksburn. It extends from about 450m at the homestead on the Hawksburn Road (Fig. 1) to 1,280m just above Duffers Saddle and 1,473m at the highest point on the back boundary on the Old Woman Range (Fig. 2).

Happy Valley was subdivided out of the original Kawarau Station in 1910 and has been occupied by the Henderson family since 1946. At that time there was little pastoral development on the land which was seriously degraded and rabbit infested. The Hendersons have carried out a significant amount of pasture improvement by oversowing and topdressing up to about 1,000m and have conducted rabbit control with shooting and poisoning both before and since the introduction of the virus RHD in the 1990s. Much of the lower country is steep, semi-arid and has only low pastoral value because of

frequent drought stress (Fig. 3). The most productive (irrigated) land occupies less than 100ha of Land Use Capability (LUC) Class IV Waenga Brown Grey Earth soils (Fig. 1).

The valley floors (Bannock Burn and Tucker and Duffers Gullies) and lowest slopes (especially on shady faces) are characterised by a small area of Fraser Recent alluvial soils and Blackstone Hill and Arrow Steepland Yellow Grey Earth soils which have been classified as LUC Class VI land with medium suitability for pastoral use. As indicated above there is a small area of irrigated LUC Class IV land on a gently sloping fan in the vicinity of the homestead.

The drier and more eroded slopes of Round Hill and an unnamed hill a little to the west of Round Hill are characterised by Alexandra Steepland semi-arid Brown Grey Earth soils which have been classified LUC Class VIIe. Class VII land is defined with low suitability for pastoral use. This is the semi-arid area which was so badly rabbit infested and which was such a problem for pastoral use in the early days of the forties and fifties. If the rabbit problem can be contained it may be possible to manage this land in a way that promotes ecological sustainability. If this can be done the land may be suitable for freeholding.

South of Duffers Gully and west of the former gold mining area in the mid reaches of the same gully there is a sequence of soils of steadily increasing moisture status (Fig. 4). The driest Conroy soils (Brown Grey Earths) have been classified LUC Class VIIe and are very similar to the Alexandra Steeplands. The mid slopes above, up to about 1,000m are characterised by Blackstone Hill and Arrow Steepland Yellow Grey Earth soils, classified LUC Class VI with medium suitability for pastoral use. The higher country above about 1,000m is mainly tussock grassland on Carrick Hill and Dunstan Steepland High Country Yellow Grey Earth soils classified LUC Class VIIe (Fig. 5). Thus about 90% of the property is of very limited suitability for pastoral use.

Most of the high country is either tussock grassland or sub-alpine cushion-field and herb-field in a semi-natural state (Fig. 5) having been much less modified by pastoral farming than the mid-altitude country. In contrast to its low pastoral value, the high country land has highly significant inherent values. These natural values were recognised by the Protected Natural Area (PNA) survey conducted in the 1980s (Fig. 6). That survey recognised an area of some 900ha in the catchment of the Bannock Burn as a recommended Area for Protection (RAP 1/5 Bannock Burn – Old Woman Range).

In order for any land to be managed in a way that is ecologically sustainable in the long term, any losses from the soil of essential nutrients in animal products (meat and wool) must be replenished. The alternative is that sooner or later the ecosystem will be depleted and degraded. LUC Class VIIe land may not be capable of being managed in a way that is ecologically sustainable because it may not be justifiable economically to replenish (in the form of fertiliser) the nutrients which are lost through grazing and burning. On lower country where pasture growth rates are higher, topdressing is worthwhile, but at higher altitudes (above about 1,000m), pasture growth and hence response to fertiliser is limited by climate. Under these circumstances conservation values should be assessed and considered as an alternative to unsustainable pastoral use.

Public access to the Old Woman Range and shorter walking opportunities in the Tucker and Duffers Gullies, together with the protection of associated areas of high natural and landscape values are likely to be the main recreational issues in this tenure review.

RECREATIONAL ACTIVITIES AND POTENTIAL

Mason (1988) stated that *"the primary winter recreational potential of the area (Old Man, Old Woman and Carrick Ranges) is for cross country skiing."* He went on to explain that this was largely due to the ease of physical access with road access to the snowline, and the possibility of day trips from Dunedin or Invercargill. Mason also stated that *"the major natural limitation to utilising the vast*

extent of easy rolling terrain is the severity of weather conditions. ... A 40km 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."

The recreational significance of Happy Valley lies in its strategic position giving access to the northern end of the Old Woman Range. The track from the Nevis Road down to Duffers Saddle and along to Mount Black is well used by cross country skiers in the winter and could be more popular with trampers and mountain bike enthusiasts in the summer months (Fig. 7). Public access to and along the Old Woman Range from the Nevis Road starts over Craigroy pastoral leasehold land: this is currently under review in the tenure review programme. Although the track through Craigroy is technically legal road, it may not precisely follow the legal alignment. If this is the case, public access is not secure and will depend on the outcomes of tenure review. Beyond the yards at the SW corner of Happy Valley, the access is through the Old Woman Range Conservation Area and is therefore available to the public (Fig. 8). The doubtful section is restricted to that section through Craigroy, along the back boundary of Happy Valley. If the high ground within the back boundary of Happy Valley became conservation land through the tenure review of this property, at least walking access to the Old Woman Conservation Area would be assured. The future status of the high country within the back boundary will be discussed in the section on significant inherent values.

We understand that some local walking groups have been permitted access to the hut and old mining area in the mid reaches of Duffers Gully (Fig. 9). This area gives the feeling of an 'oasis' among a 'desert' of semi-arid hills (Fig. 10) and is clearly a special destination for those privileged to go there. Using existing farm tracks, which are steep in places, a round trip involving climbs over saddles into and out of the mid reaches of Duffers Gully can be made from the boundary with Carrick Station (in Tucker Gully). This would make a good day trip of about 10km from the Hawksburn Road. Although use of this round trip would depend on gaining permission from the owners of Carrick Station and Pisa View, it is recommended that public access over Happy Valley land for foot and mountain bike travellers should be established through the tenure review of Happy Valley.

FMC has made an important point in other tenure review submissions: *"The fact that a right of way across other [neighbouring] properties does not yet exist should not be a reason for not making provision for access over [this property]. Provision should be made now in anticipation of further public access becoming available through future tenure reviews or other access arrangements."*

Another possibility for easy walking trips for locals would be an opportunity to explore some of the many water races on the property. Starting from the high country, these include the Carrick Race (Fig. 11), the races in the mid reaches of Duffers Gully (Fig. 12), and the races coming out of the Bannock Burn catchment (Fig. 13). As stated above, the future status of the high country block will be discussed in the section on significant inherent values, but if it becomes conservation land, access along the Carrick Race would be assured. Exploration of the races in the mid reaches of Duffers Gully (Fig. 12) would add another dimension to the day walk (round trip) discussed above. Such exploration would enhance the public knowledge and appreciation of the efforts made by the early gold miners.

Finally, it is argued that the recreational significance of Happy Valley should be assessed not only on present usage but also on potential. This is because current usage is less than its potential for a number of reasons. Because of the current land tenure, and because access to the Old Woman Range and the little known area in the mid reaches of Duffers Gully has not been easy in the past, the recreational use of the tracks described in this report is less than it might have been if access was freely available. There is significant potential for greater use, particularly by foot and mountain bike, and it is the full range of possibilities which should be considered during this tenure review.

In summary, this assessment indicates that there is scope on Happy Valley for day walks and longer trips along the Old Woman Range. These are likely to include tramping and mountain bike trips in addition to forays into the Bannock Burn and along the water races.

SIGNIFICANT INHERENT VALUES AND THEIR IMPORTANCE FOR RECREATION

This report focuses on those features of Happy Valley 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 and landscapes of the areas concerned have a fundamental impact on the recreational value of the place and greatly influence the quality of recreational experience enjoyed. It is for this reason that reference is also made to both natural, historic and landscape values of this pastoral lease.

The Protected Natural Area (PNA) surveys carried out in the 1980s recognised the significance of natural values and identified certain Recommended Areas for Protection (RAPs). On Happy Valley one important area was identified. This area is defined as RAP 1/5 Bannock Burn – Old Woman Range and occupies some 900ha in the catchment of the Bannock Burn (Fig. 6).

The PNA Report for RAP1/5 states:- *“The landform comprises high summit plateaux, outlier cirque basins and deep NE trending gully. Across the summit plateaux a pattern of regular and deflated surfaces occurs on exposed dry sites, and bogs/flushes on more sheltered low lying areas. Solifluction and nivation features are prominent on eastern aspects of shallow gullyheads. Eastwards, the plateau is lightly glaciated: a regular pattern of low buttresses and wide joint-controlled depressions with tarns.*

Below the periglacial summit area the Bannock Burn catchment deepens abruptly in mid-upper reaches and is slumped on both flanks. Tors stud the regularly sloping ridge crests. The deep valley profile is much reduced in the lower reaches.

The vegetation contains a full altitudinal sequence of communities from montane tussock and scrub through to high alpine cushionfield. Cushionfield is widespread across the upper plateaux and east around the head of the Bannock Burn..... Dracophyllum muscoides dominates exposed pavement of the Old Woman Range, continuing down southeast-facing ridge crests of the Bannock Burn catchment. Pockets of slim snow tussock and blue tussock are confined to sheltered depressions and north-facing slopes. Diverse cushion-herbfield communities over the hummocky eastern plateau occur in a mosaic with wetland species around tarns and string bogs.

The upper Bannock Burn catchment has a mosaic of fellfield, cushion and snowbank communities across wide, gentle slopes. Wetlands along stream-side slopes are dominated by moss and Carex.

Slim snow tussock and blue tussock dominate the upper Bannock Burn valley but are replaced by dense narrow-leaved snow tussocklands below 1,350m. Areas of alpine fescue and golden Spaniard are prominent on upper exposed slopes.

Below 1,050m the catchment is extensively oversown. Silver tussock maintains 50% cover over most of lower slopes with patches of matagouri, Coprosma propinqua and Carmichaelia petriei amongst boulders and scattered outcrops. Briar and hemlock become abundant towards the base of the catchment.”

There is also an area of high natural and landscape value in the top block of Happy Valley extending from the Nevis Road to the rim of the Bannock Burn catchment (Figs 2, 5 and 14). This area extends from the high point at 1,473m down to a fenceline which roughly follows the contour between about 1,000 and 1,100m. This area (Fig. 14) consists of tussock grasslands, fellfield, cushion and snowbank communities and tors, very similar to that described in the RAP1/5.

Because of the highly significant inherent values recognised by PNA Survey it is recommended that the entire area of RAP 1/5 within Happy Valley should be returned to full Crown ownership and control to be managed for conservation and recreation purposes. It is our considered opinion that the natural values of the adjacent top block of Happy Valley (Figs 2, 5 and 14) above the contour fence which is situated at about 1,000 to 1,100m, are essentially comparable with the values within the RAP. We therefore recommend that this block, down to the contour fence at about 1,000 to 1,100m should also be returned to full Crown ownership and control.

It should be noted that in the General Description section above, doubts were expressed about the ability to manage this area in a way that promotes ecological sustainability as required by the Crown Pastoral Land (CPL) Act 1998. The reasons for this doubt were explained above. We argue that the inherent values are significantly greater than the marginal pastoral value and that the land should therefore be returned to full Crown ownership and be managed for conservation and recreation purposes.

There are important historic values in the mid-reaches of Duffers Gully. These values are centred on a short length (a few hundred metres) of the gully which includes an historic miner's stone cottage (dating back to the start of gold mining in the 1870s) and well stacked heaps of stone tailings (Figs 9 and 10). These tailings are quite extensive and represent a great deal of physical manual labour. These features add considerable interest for recreational visitors and should be protected. It may not be necessary to preclude grazing, and recognition as an Historic Reserve with grazing rights and public access could be appropriate.

AREAS TO BE PROTECTED

There are a number of areas on Happy Valley with significant natural, historic or landscape values which deserve protection in terms of the CPL Act 1998.

An important area with highly significant inherent natural values was identified in PNA surveys as RAP 1/5 Bannock Burn – Old Woman Range. Because of the highly significant inherent values in that area, which are briefly described above, the area described as RAP 1/5 should be returned to full Crown ownership and control to be managed for conservation and recreation purposes.

There is also an area in the adjacent top block of Happy Valley extending from the Nevis Road to the rim of the Bannock Burn catchment which also has highly significant inherent values comparable to those of RAP 1/5. This area extends from the high point at 1,473m down to a fenceline which roughly follows the contour between about 1,000 and 1,100m. It consists of tussock grassland and fellfield, cushion and snowbank communities and tors, very similar to that described in the RAP1/5. We have expressed the opinion above that it is unlikely that this area could be managed for pastoral use in a manner which would promote ecological sustainability (as required by the CPL Act 1998). We therefore recommend that this block (adjacent to RAP 1/5) down to the contour fence at about 1,000 to 1,100m should also be returned to full Crown ownership and control.

The historic features in the mid reaches of Duffers Gully, including a miners stone cottage and heaps of stacked stone tailings which date back to the 1870s, add considerable interest for recreational visitors and should be protected. It may not be necessary to preclude grazing and recognition as an Historic Reserve with grazing rights and public access may be appropriate.

ACCESS REQUIREMENTS

One of the main issue in this tenure review is public access to and along the Old Woman Range, particularly for cross country skiing.

Although the track to the Old Woman Range through Craigroy is technically legal road, it may not precisely follow the legal alignment. If this is the case, public access is not secure and will depend on the outcomes of tenure review. Beyond the yards at the SW corner of Happy Valley the access is through the Old Woman Range Conservation Area and is therefore available to the public. The doubtful section is restricted to that part of the track through Craigroy, along the back boundary of Happy Valley. If the high ground within the back boundary of Happy Valley became conservation land through the tenure review of this property, at least walking access to the Old Woman Conservation Area would be assured. The CPL Act 1998 requires that provision be made for secure public access. It is therefore recommended that public access to the Old Woman Range along the back boundary of Happy Valley should be assured as an outcome of tenure review, either by designation of a Conservation Area or an easement for public foot and non-motorised vehicle access.

Public access is also required to the historic gold mining area in the mid reaches of Duffers gully. Ideally this would be in the form of an easement (for foot and non-mechanised vehicle use) on the tracks leading to and from Tucker Gully over the saddles to the north and south of the historic mining area.

The lower reaches of Bannock Burn carry two water races which traverse the shrublands in the Gorge. A contoured road gives easy access which the public might enjoy if an easement could be provided across the farmland.

OTAGO CONSERVATION MANAGEMENT STRATEGY

In the Otago Conservation Management Strategy for (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: *“Pastoral lease tenure review on adjacent properties will provide opportunities to negotiate to protect the entire range crest.”* and *“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 the objectives if this tenure review can be successfully negotiated.

CONCLUSIONS

1. The tenure review of Happy valley is a one-off opportunity to enhance the recreational opportunities of the Duffers Saddle - Old Woman range area, and to increase the recreational value of those lands by recognising the significant inherent natural, historic and landscape values described

above and in the PNA Surveys carried out in the mid 1980s.

2. The higher country of Happy Valley is situated in a commanding position overlooking Cromwell and Lake Dunstan. It includes the entire catchment of Duffers Gully and most of the catchment of the Bannock Burn. Its northern boundary is close to the Nevis Road while its western boundary runs along the crest of the range, bordering Craigroy Station on the Nevis side.
3. The high country at the back of the property includes Duffers Saddle and the Carrick Water Race. In fact, water races are a characteristic feature of the property with races used during the gold mining era, and more recently bringing irrigation water out of the Bannock Burn for farms in the Bannockburn area. Some of these may be suitable for recreational use.
4. A high proportion of the property has been classified LUC Class VIIe. The lower altitude steep slopes on Round Hill and similar areas are characterised by semi-arid soils which are prone to rabbit infestation and have low pasture potential due to frequent drought stress. The higher country, above about 1,000m is characterised by Dunstan and Carrick high country soils of inherently low fertility and has also been classified LUC Class VIIe.
5. High country LUC Class VII land may not be capable of being managed in a way that is ecologically sustainable because it may not be justifiably economic to replenish the nutrients which are lost through grazing and burning. Conservation values should be assessed and considered as an alternative to unsustainable pastoral use.
6. Public access to the Old Woman Range and shorter walking opportunities in the Tucker and Duffers Gullies, together with the protection of associated areas of high natural and landscape values are likely to be the main recreational issues in this tenure review.
7. Mason (1988) stated that "*the primary winter recreational potential of the area (Old Man, Old Woman and Carrick Ranges) is for cross country skiing.*" He went on to explain that this was largely due to the ease of physical access which includes road access to the snowline, and the possibility of day trips from Dunedin or Invercargill.
8. The track from the Nevis Road through Duffers Saddle and along to Mount Black is well used by cross country skiers in the winter and could be more popular with trampers and mountain bike enthusiasts in the summer months. Public access to and along the Old Woman Range from the Nevis Road starts over Craigroy pastoral leasehold land. Although the track is technically legal road, it may not precisely follow the legal alignment and public access is probably not secure and will depend on the outcomes of tenure review.
9. PNA surveys carried out in the 1980s recognised the significance of natural values and identified one RAP on Happy Valley. This area is defined as RAP 1/5 Bannock Burn – Old Woman Range and occupies some 900ha in the catchment of the Bannock Burn.
10. Another area of high natural and landscape value is situated in the top block of Happy Valley extending from the Nevis Road to the rim of the Bannock Burn catchment and which FMC asserts is of comparable conservation and recreation value to the RAP.
11. FMC recommends that both these areas should be returned to full Crown ownership to be managed for conservation and recreation purposes. If this recommendation is adopted, public foot and non-motorised access along the back boundary to the Old Woman Conservation Area will be secured as required by the CPL Act 1998.

12. If public access is not secured as recommended above, then an easement for public foot and non-motorised vehicle access along the back boundary will be required.

13. Significant historic values (a stone hut and stacked stone tailings relating to early gold mining) have been recognised in the mid-reaches of Duffers Gully. These features add considerable interest for recreational visitors and should be protected. It may not be necessary to preclude grazing, and recognition as an Historic Reserve with grazing rights and public access would be appropriate.

14. Access would be best provided by an easement for public foot and non-motorised vehicle access on farm tracks leading to and from Tucker Gully over the saddles to the north and south of the historic mining area in Duffers Gully.

15. The fact that rights of way may not yet exist across neighbouring properties should not be a reason for failing to make provision for access over Happy Valley. Provision should be made now in anticipation of further public access becoming available through future tenure reviews or other access arrangements.

16. The recreational significance of Happy Valley should be assessed not only on present usage but also on potential. This is because current usage is less than its potential for a number of reasons including ease of access in the past.

17. The outcome of the tenure review of Happy Valley could contribute significantly to the achievement of the objectives declared for the Old Man - Garvie Special Place in the Otago Conservation Management Strategy.

ACKNOWLEDGEMENTS

FMC is grateful for assistance from authorities in making the assessment possible. The site inspection was carried out in February 2006 and FMC is grateful to the runholder for co-operation and granting permission for access, and to Opus staff for making the appropriate arrangements.