

Crown Pastoral Land Tenure Review

Lease name : CORONET PEAK

Lease number : PO 195

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.

January 06

APPENDIX 7: Fish Sampling Site Details

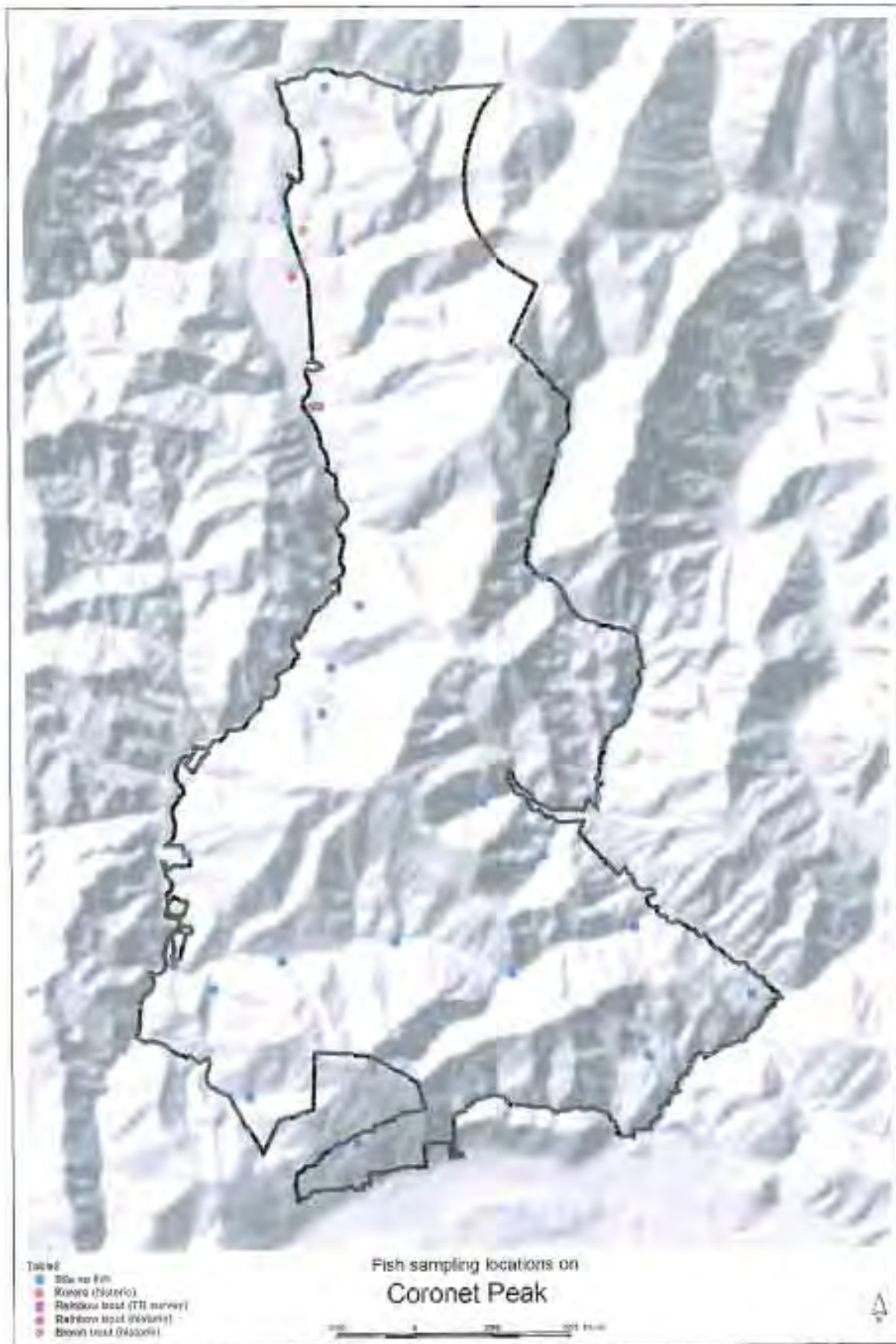
Creek name	Easting	Northing	Species	Map symbol
Ironstone	2172400	5595900	<i>Salmo trutta</i>	●
Church Hill Ck	2172200	5600400	<i>Salmo trutta</i>	●
Carmichael Ck	2171900	5599200	<i>Salmo trutta</i>	●
Carmichael Ck	2171900	5599200	<i>Galaxias brevipinnis</i>	●
Deep Creek	2168800	5581700	<i>Galaxias brevipinnis</i>	●
Deep Creek	2168800	5581700	<i>Oncorhynchus mykiss</i>	●
Polnoon Tarn	2172748	5602626	<i>Oncorhynchus mykiss</i>	■
Ironstone	2172573	5595880	<i>Oncorhynchus mykiss</i>	■
Polnoon	2174870	5604084	~	■
Polnoon Tarn	2172742	5604023		■
Polnoon	2171776	5600702		■
Carmichael Ck	2173130	5599859		■
Stockyard	2174153	5598141		■
Rapid	2175013	5592854		■
Arrow upper	2178660	5594659		■
Arrow upper	2178316	5591517		■
Shotover trib	2173582	5590807		■
Sandhill Ck	2172876	5589238		■
Deadmans	2172609	5588068		■
Arrow upper	2180644	5590188		■
Arrow upper	2180468	5588283		■
Arrow Mace.	2179636	5585873		■
Scanlan Gully	2178248	5584405		■
Sylvan Ck	2176717	5585792		■
Goosebery gully	2169124	5584503		■
Coronet Ck	2180578	5582604		■
Hayes Ck	2183577	5580879		■
Sawpit gully	2180935	5579280		■
Coronet Ck Upp	2177431	5581442		■
Deep Ck Upper	2174479	5582249		■
Deep Ck	2171576	5581774		■
Greengates	2169821	5581073		■
Dirty Four	2170721	5578279		■
Station creek	2173470	5577103		■

Key

Site No Fish

Koraro (*Galaxias brevipinnis*) [historic]Rainbow trout (*Oncorhynchus mykiss*) [TR survey]Rainbow trout (*Oncorhynchus mykiss*) [historic]Brown trout (*Salmo trutta*) [historic]

APPENDIX 8: Fish Sampling Site Map



APPENDIX 9: Aquatic Fauna Site Details and Species List

SITE ID	Creek	easting	northing	Sweeps	stream width m (High water)	stream width m (Normal water)	stream depth(mm)	Habitat	substrate	Riparian veg	Inverte abundance (Low, Medium, High)	Fish			Mayflies		Stoneflies	Caddisflies		Damselfly	Fly		Beetle	Toe biter	Waterbug	Miscellaneous				
												Species	#	size(mm)	Nesameletus (MCI 9)	Deleatidium (MCI 8)		Zealandobius(MCI 10 except site 87 were MCI 5)	Megaleptoperla grandis (MCI 9)		Polypsectropus (MCI 8)	Aoteapsysche (MCI 4)				Odanata (MCI 5-6)	Chironomid (MCI 1)	Sciomyzidae(MCI 3)	Elmid(MCI 6)	Manuka	Archichauliodes(MCI 7)	Corixidae(MCI 5)	flatworm(MCI 3)	leech(MCI 3)	centipede
74	Polnoon	2174870	5604084		15	12	350	Ri	Co	T	M	~			a	a														
75	Polnoon Tam	2172742	5604023	3				S		T	L								a						a					
76	Polnoon Tam	2172748	5602626	3	0.9	0.9	600	Ru	M	T	L	oncmysk	3	30-35																
77	Polnoon	2171776	5600702	2	5	2	200	Ri	Co	E	H				a	a	a													
78	Carmichael Ck	2173130	5599859	3	4	3	400	Ri	Co	E	H				a	a														
79	Stockyard	2174153	5598141	3	20	3	200	Ri	Co	E	H				a	a	a													
80	Ironstone	2172573	5595880	3	10	3	200	Ru	Co	E	M	oncmysk	4	70-100	a	a	a													
81	Rapid	2175013	5592854	3	5	2	150	Ru	B	T	H				a	a	a													
82	Arrow upper	2178660	5594659	3	6	5	350	Ri	B	T	M				a	a	a													
83	Arrow upper	2178316	5591517	3	10	6	350	Ru	Co	T	M				a	a	a													
84	Shotover trib	2173582	5590807	2		0.3	70	Ri	Co	T	H				a		a											a	a	
85	Sandhill Ck	2172876	5589238	3	3	2.5	200	Ru	Co	T	M				a	a	a													
86	Deadmans	2172609	5588068	3	2	1	100	Ri	Co	T	L				a	a														
87	Arrow upper	2180644	5590188	3	10	7	250	Ri	Co	T	H				a	a	a													
88	Arrow upper	2180468	5588283	3	2	2	150	Ri	B	T	L				a	a	a													
89	Arrow Mace.	2179636	5585873	3		8	200	Ru	CG	E	L					a						a								
90	Scanlan Gully	2178248	5584405	3	10	2.5	150	Ri	Co	T	H				a	a								a			a			

SITE ID	Creek	easting	northing	Sweeps	stream width m (High water)	stream width m (Normal water)	stream depth(mm)	Habitat	substrate	Riparian Veg. (Low, High, Medium)	Fish	Species	#	size(mm)	Mayflies		Stoneflies		Caddisflies		Damselfly	Fly	Beetle		Toe biter	Waterbug	Miscellaneous		
															Nesamelatus	Deleatidium	Zealandobious	Megaleptoperla grandis	Polypsectropus	Aoteapsyche			Chironomid	Sciomyzdae			Elmid	Manuka	Archichauliodes	Corixdae	flatworm	leech	centipede
91	Sylvan Ck	2176717	5585792	3	4	2	200	Ra	B	S	H				a	a	a												
92	Goosebery gully	2169124	5584503	2	2	1.5	100	Ri	CG	E	L				a														
93	Coronet Ck	2180578	5582604	3	6	3	250	Ri	Co	T	H				a	a													
94	Hayes Ck	2183577	5580879	2		0.8	50	Ru	CG	T	0																		
95	Sawpit gully	2180935	5579280	3	3	1	100	Ri	CG	E	H				a	a			a										
96	Coronet Ck Upp	2177431	5581442	3	5	2.5	200	Ru	CG	T	H				a	a				a					a				
97	Deep Upper Ck	2174479	5582249	3	3.5	3	250	Ra	B	S	M				a	a	aa			a					a				
98	Deep Ck	2171576	5581774	3	10	6	200	Ru	Co	T	H				a			a											
99	Greengates	2169821	5581073	2		0.8	100	Ru	Co	T	H				a	a	a												
100	Dirty Four	2170721	5578279	2	3	2	200	Ra	B	S	M				a	a	aa				a								
101	Station creek	2173470	5577103	2		0.6	150	Ru	Co	T	M				a	a	a						a						

KEY:

HABITAT: S =still
SUBSTRATE: Co =cobble
RIPARIAN VEG: T =grass tussock
 P =pool
 Ru =run
 Ri =riffle
 Ra =rapid
 CG =coarse
 B =boulder
 FG =fine gravel
 S =sand
 M = mud
 E =exposed bed
 S =shrub

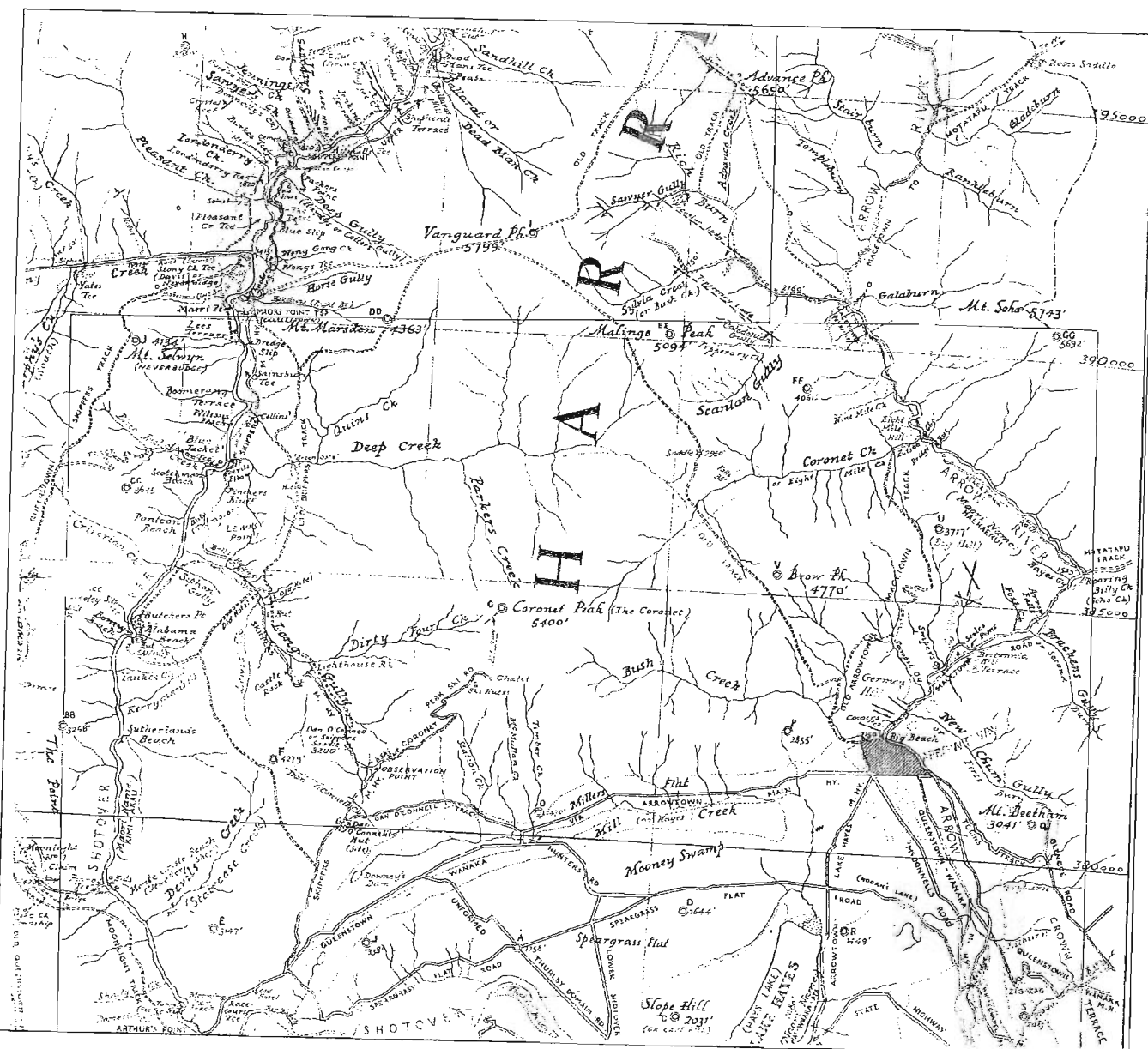


Figure 2. Southern section of Chandler's (1957) historic map of late 19th and early 20th century gold-mining along Shotover and Arrow Rivers. Many of the names of the gold claims, landmarks and buildings etc were derived from interviews with gold-miners during the 1940s and 1950s and refer to actual persons who mined in the area (original map ca. 70 cm).

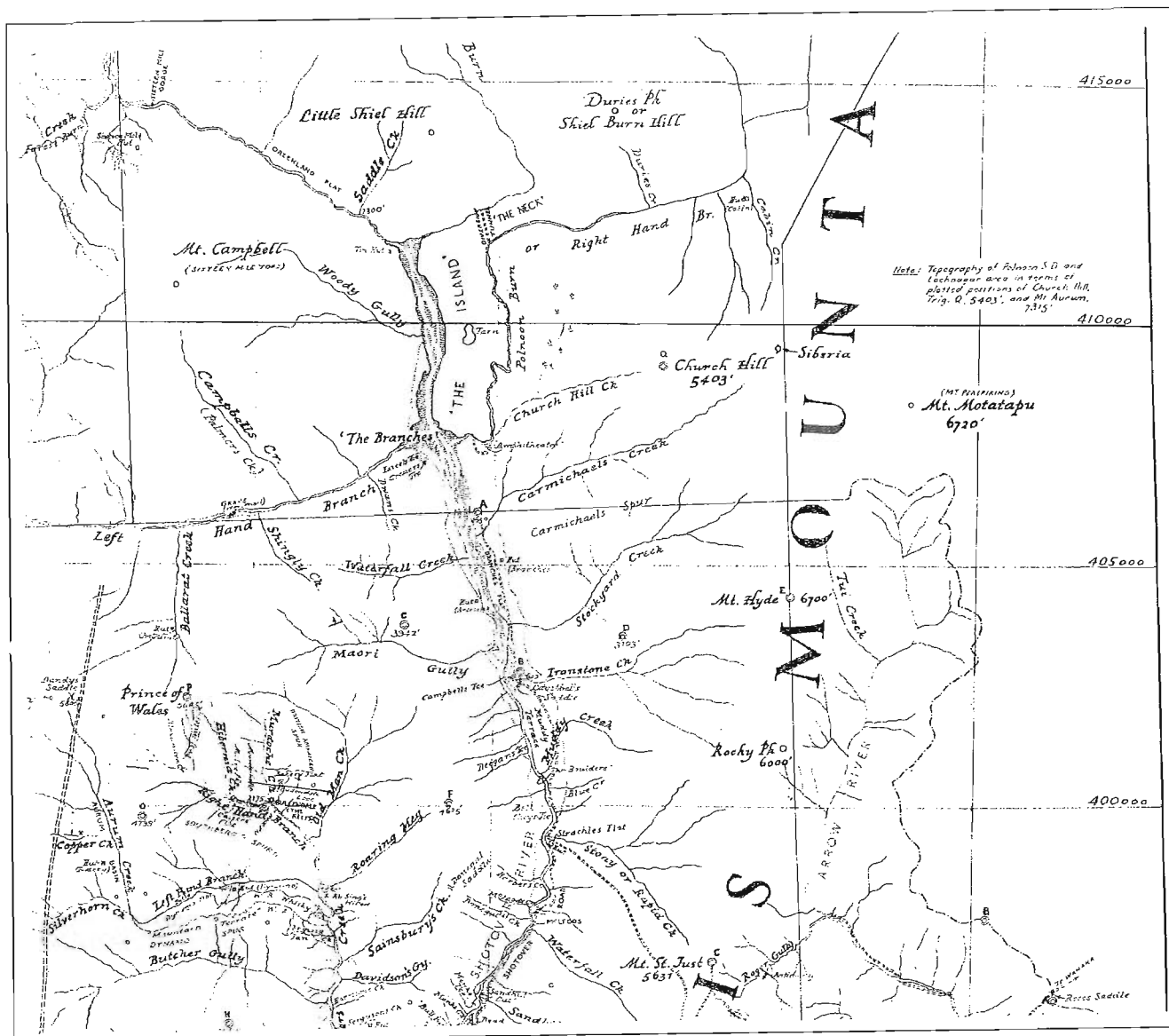


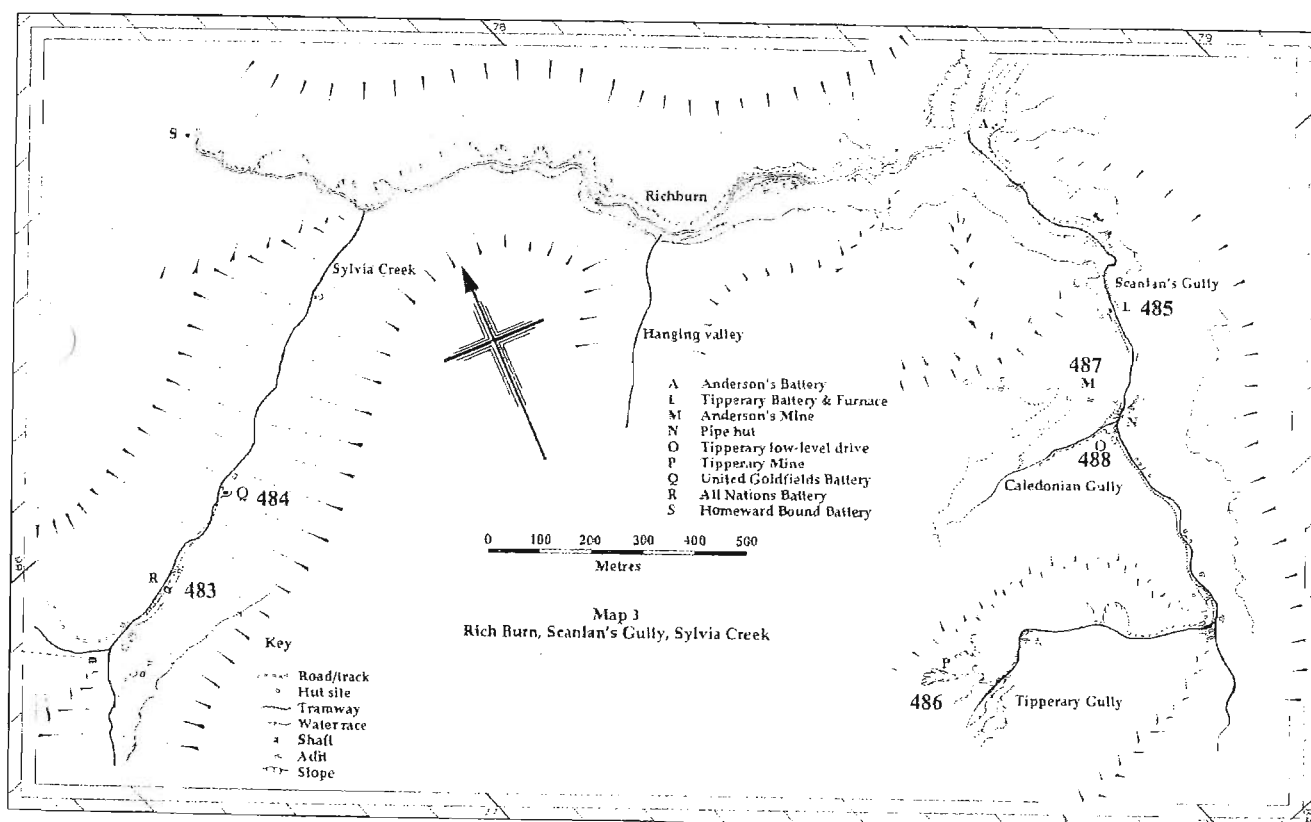
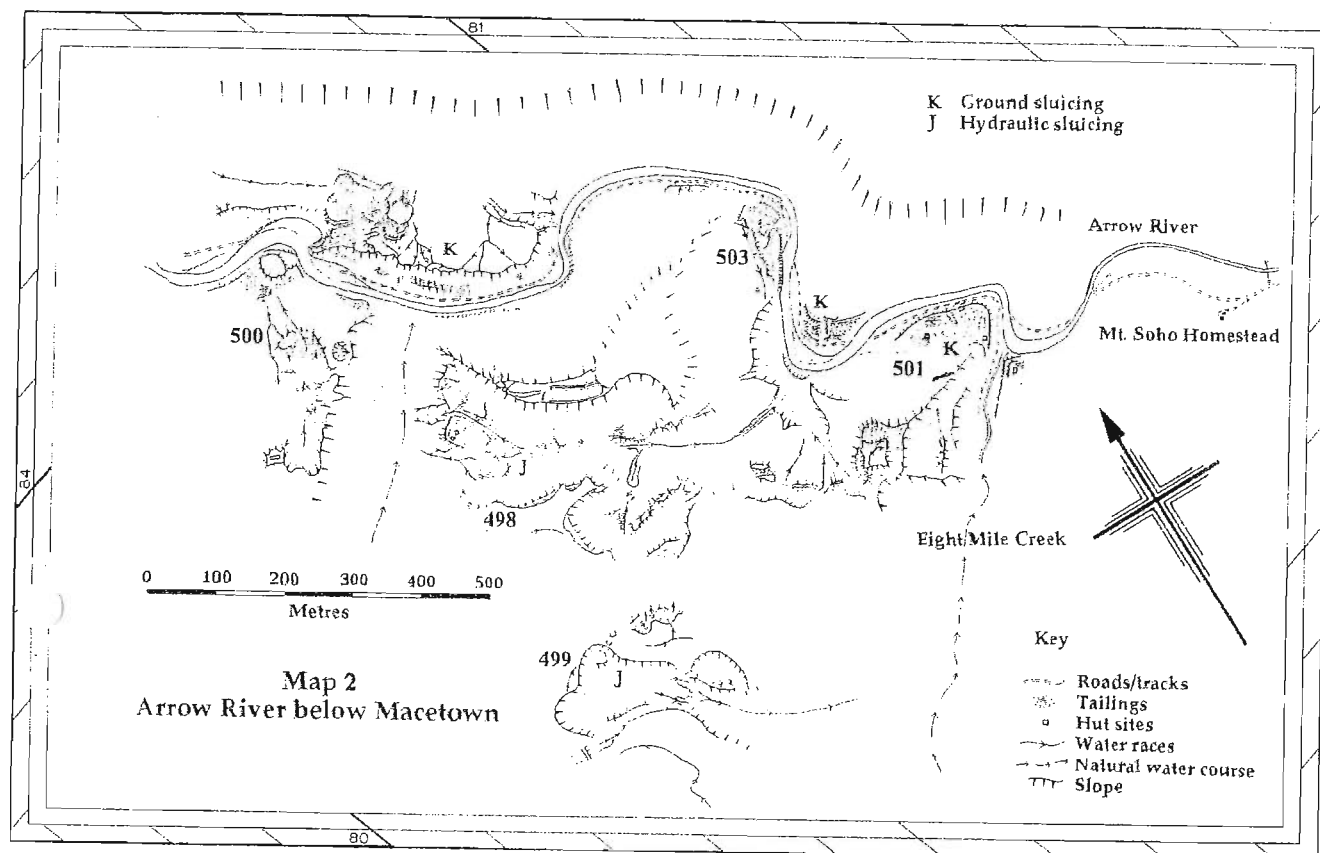
Figure 3. Northern section of Chandler's (1957) historic map of late 19th and early 20th century gold-mining along the Shotover and Arrow Rivers. Many of the names of the gold claims, landmarks and buildings etc were derived from interviews with gold-miners during the 1940s and 1950s and refer to actual persons who mined in the area (original map *ca.* 70 cm).

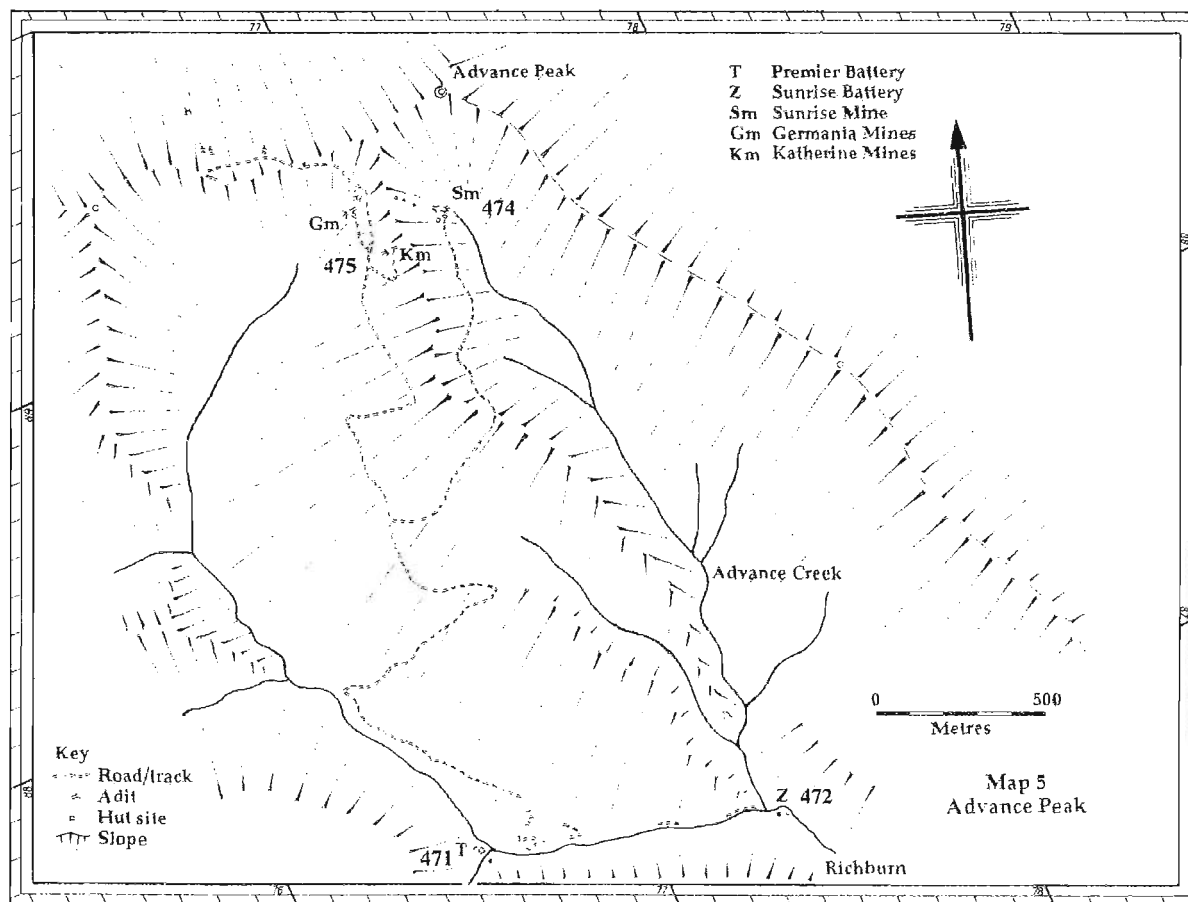
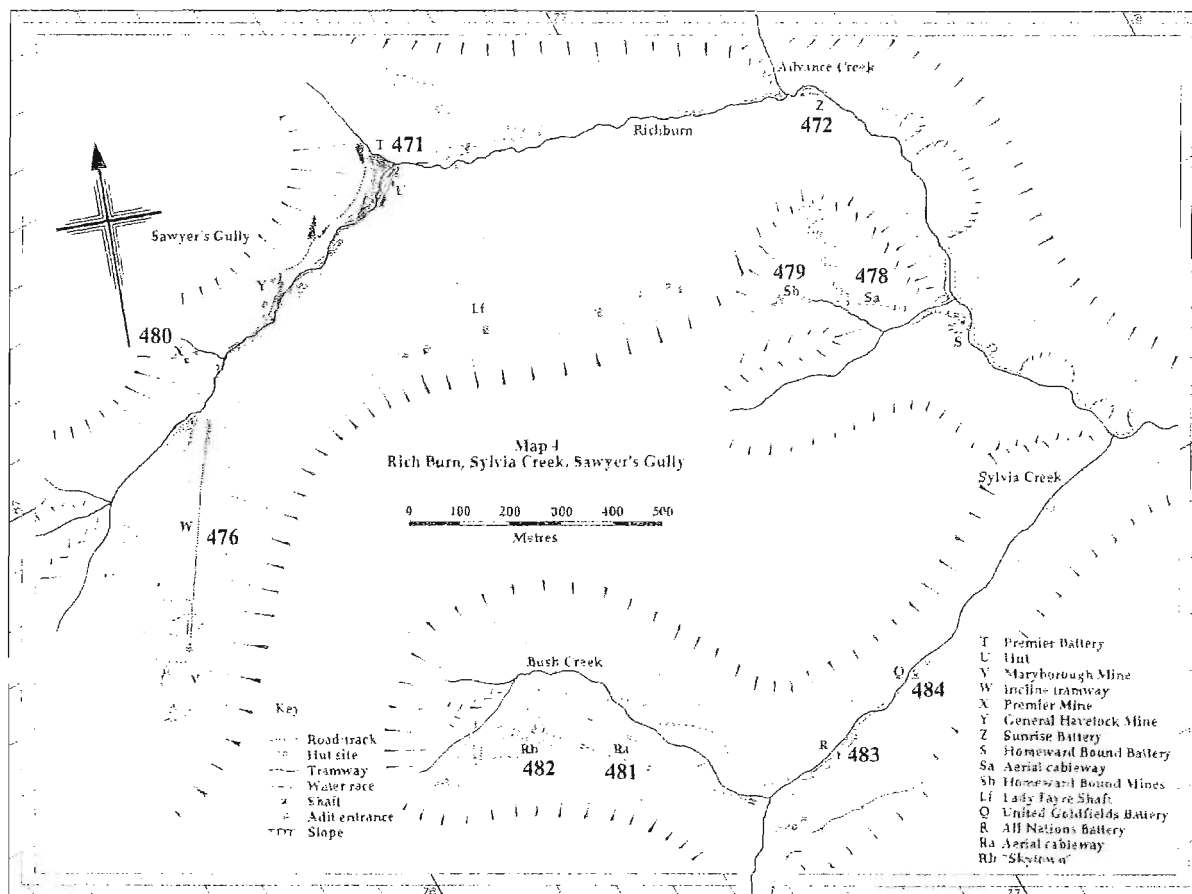




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Figure 6. The four maps below (Maps 2 to 5) are from Petchey's (2002) Macetown survey. Added to the maps are the NZAA Metric Site Record Numbers (NZMS Map Series E41) for the highly significant sites on the Coronet Peak Pastoral lease which are outside of the Macetown Reserve.





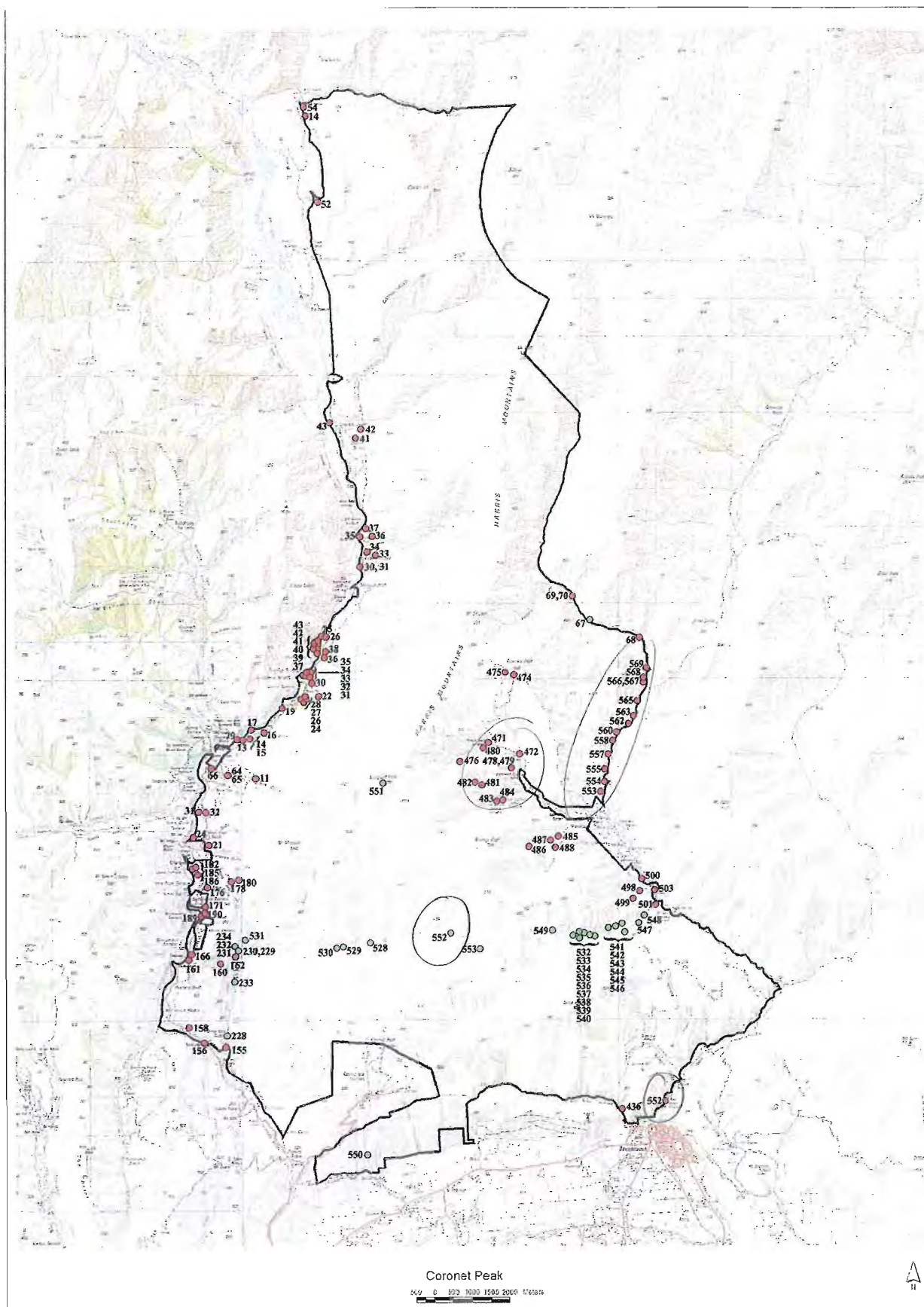


Figure 1. Previously recorded (red dots) and newly recorded (green dots) archaeological sites on the Coronet Peak Pastoral Lease. New sites were recorded during the Tenure Review fieldwork. NZAA Metric Site Record Numbers for the NZMS 260 Map Series E40, E41, F40 and F41 have been used.

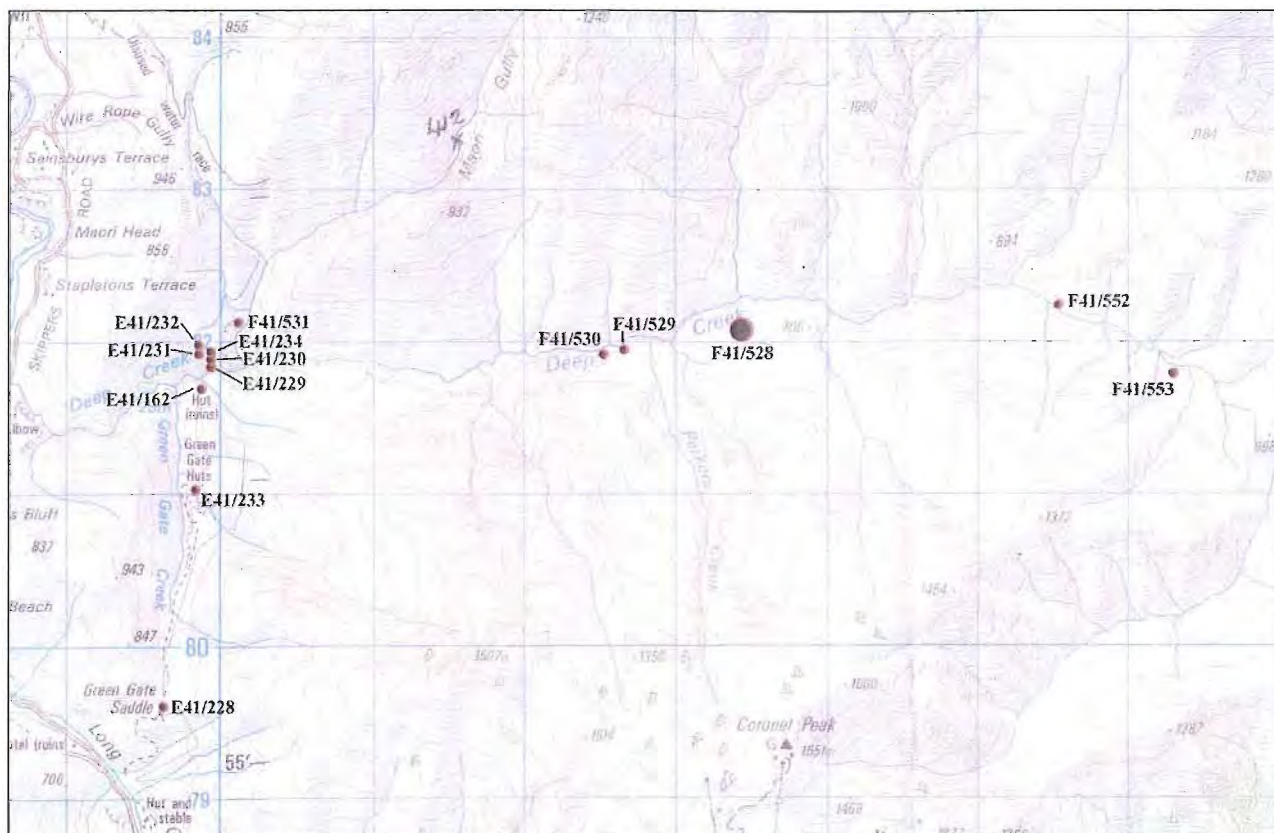


Figure 7. Locations of new archaeological sites found along Deep Creek, Green Gate Creek and Maori Gully during the Coronet Peak Pastoral lease Tenure Review fieldwork.

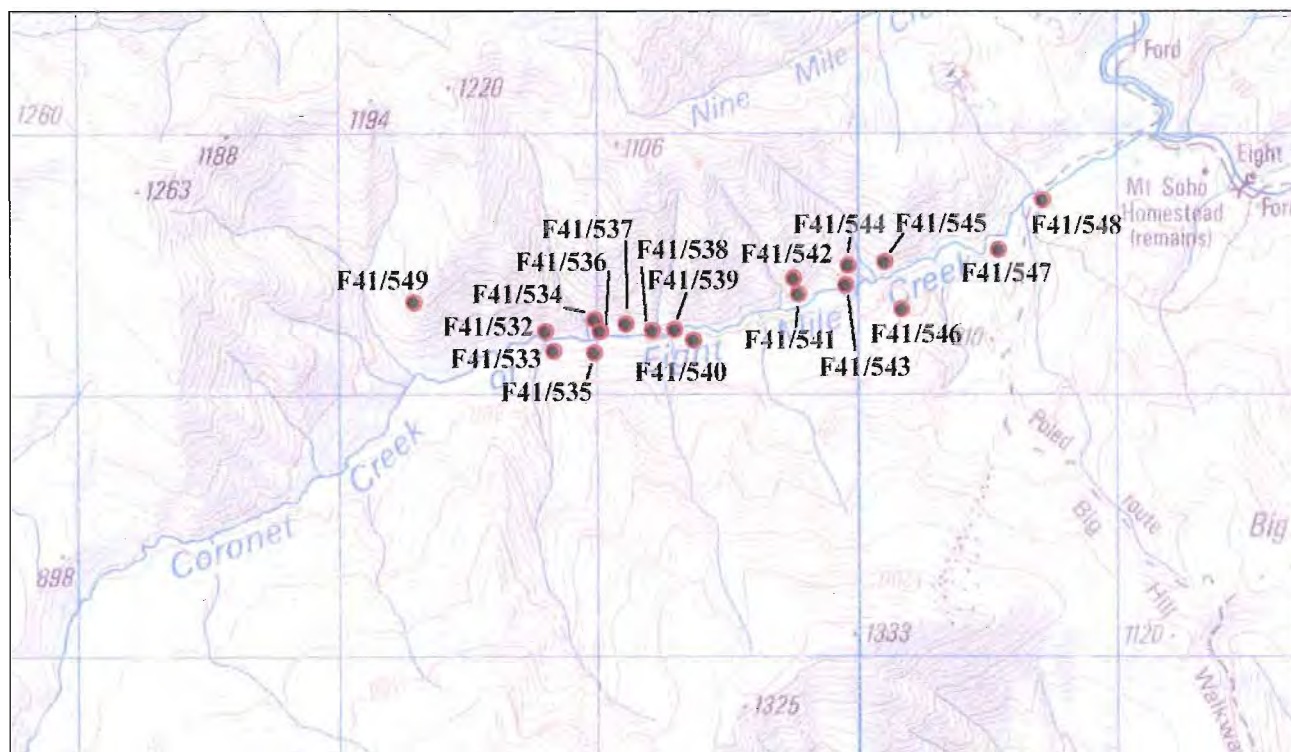


Figure 8. Locations of new archaeological sites found along Eight Mile Creek during the Coronet Peak Pastoral lease Tenure Review fieldwork.

SITE RECORD FORM

NZMS260 map number F40
 NZMS260 map name Wanaka
 NZMS260 map edition ed 1 1991
 Reprinted 1995

DATE VISITED 19/3/05
 SITE TYPE
 Huts/enclosures/dams/races/sluicing/
 goldmining
 SITE NAME: MAORI
 OTHER Muddy Terrace

Grid Reference Easting | 727 Northing | 956

1. Aids to relocation of site (attach a sketch map)

All the northern part and north and west edges of the terrace country between Ironstone Creek (on the north) and Muddy Creek (on the south). See overall plan

2. State of site and possible future damage

Apart from damage by 4WD track which is minor (except in the area of concentrated and complicated races at the northeast corner), the site is in lightly grazed grass and the earthworks are in excellent condition. Some domestic (?) structures such as hut A and hut B may have been of sod or mud brick and are amorphous and difficult to interpret from the surface features.

3. Description of site (Supply full details, history, local environment, references, sketches, etc. If extra sheets are attached, include a summary here)

H F40/42 has been updated in a separate record.

The overall plan shows the 25 ha area of the terrace. The focal features are the two dams in the northeast part of the terrace, the upper (earlier) and lower (later) dams). The upper dam has been built over a rectangular ditch and bank complex. This dam has a hocky stick plan and is about 140 m in its longest dimension formed by a substantial bank about 1 m high at its maximum. The exit is marked by stone revetting with a stone lined race outside the bank (see detail on second plan) although no signs of a control structure such as a gate are visible. Volume of this dam was 980 cubic m. This dam was fed by races and a spring on the slopes above. The races probably came from up Ironstone Creek.

The lower dam is boomerang shaped in plan and is about 160 m across at its widest point where the bank enters the slope of the terrace. It has several exits some of which appear to be merely races run through the dam when it was empty. Volume of this dam was 4 200 cubic metres. It was fed by the races that fed the upper dam via a circuitous series of flumes and also a major race that appears to have been fed by a siphon flume or pipe from the terrace country to the north of Ironstone Creek.

Cont...

4. Owner The Branches

Tenant/Manager
Address

5. Nature of information (hearsay, brief or extended visit, etc.)

Extended visit, levelling, GPS observations of controls

Photographs (reference numbers and where they are held)

Aerial photographs (reference numbers and clarity of site)

Shows clearly in verticals of 28/4/03

6. Reported by K Jones
Address DOC

Filekeeper
Date

7. Central File (for office use)



Type of site

Land classification



Condition/threat

Local body

F40/41
727956
Muddy Terrace

Cont... p.2

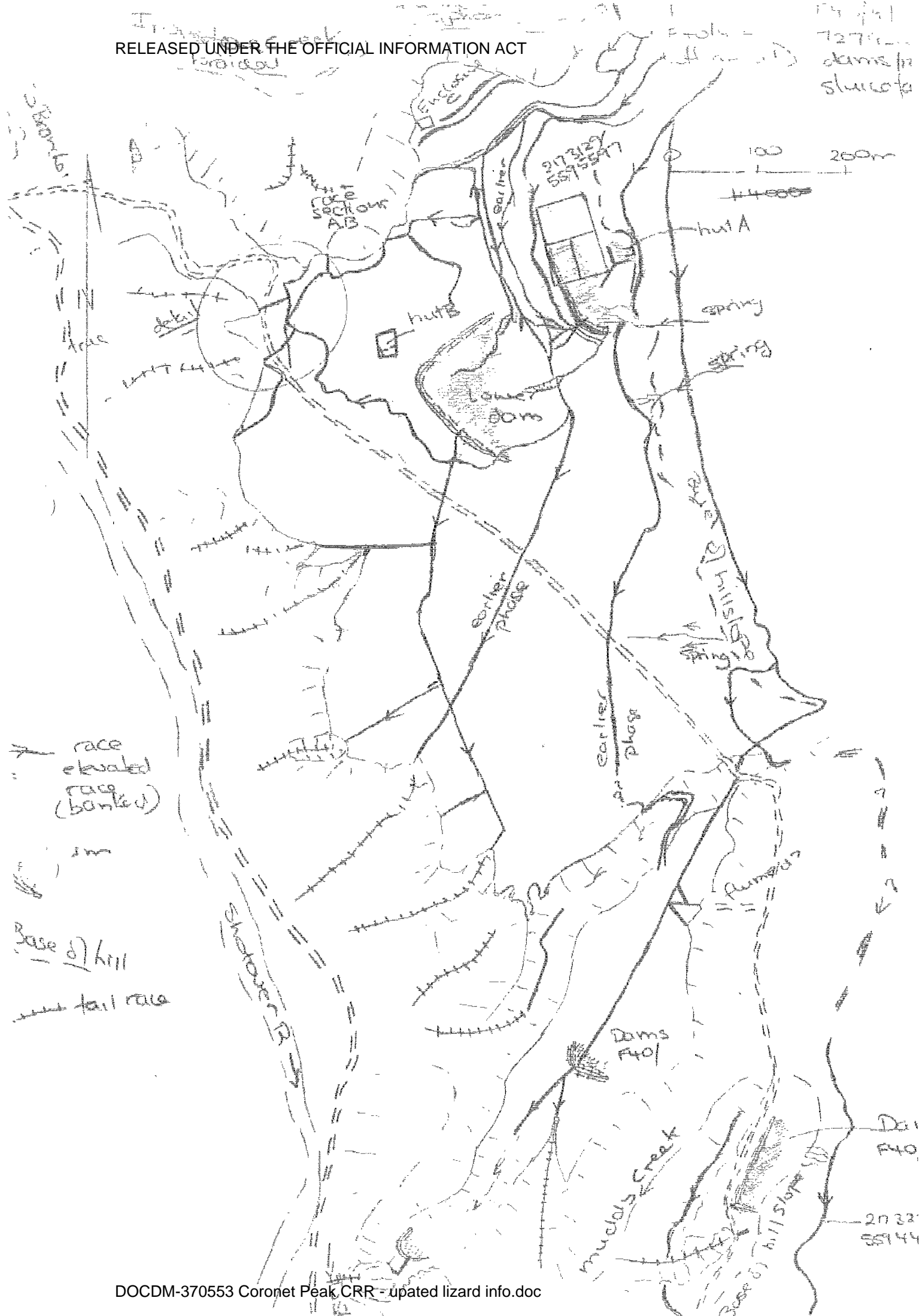
The upper dam appears to have fed head races on the northern side of the terrace. Some water may have gone in small (very spidery on the aerial) to the southwest. The lower (later) dam fed races that went to the northwest of the terrace and all points to the west and southwest.

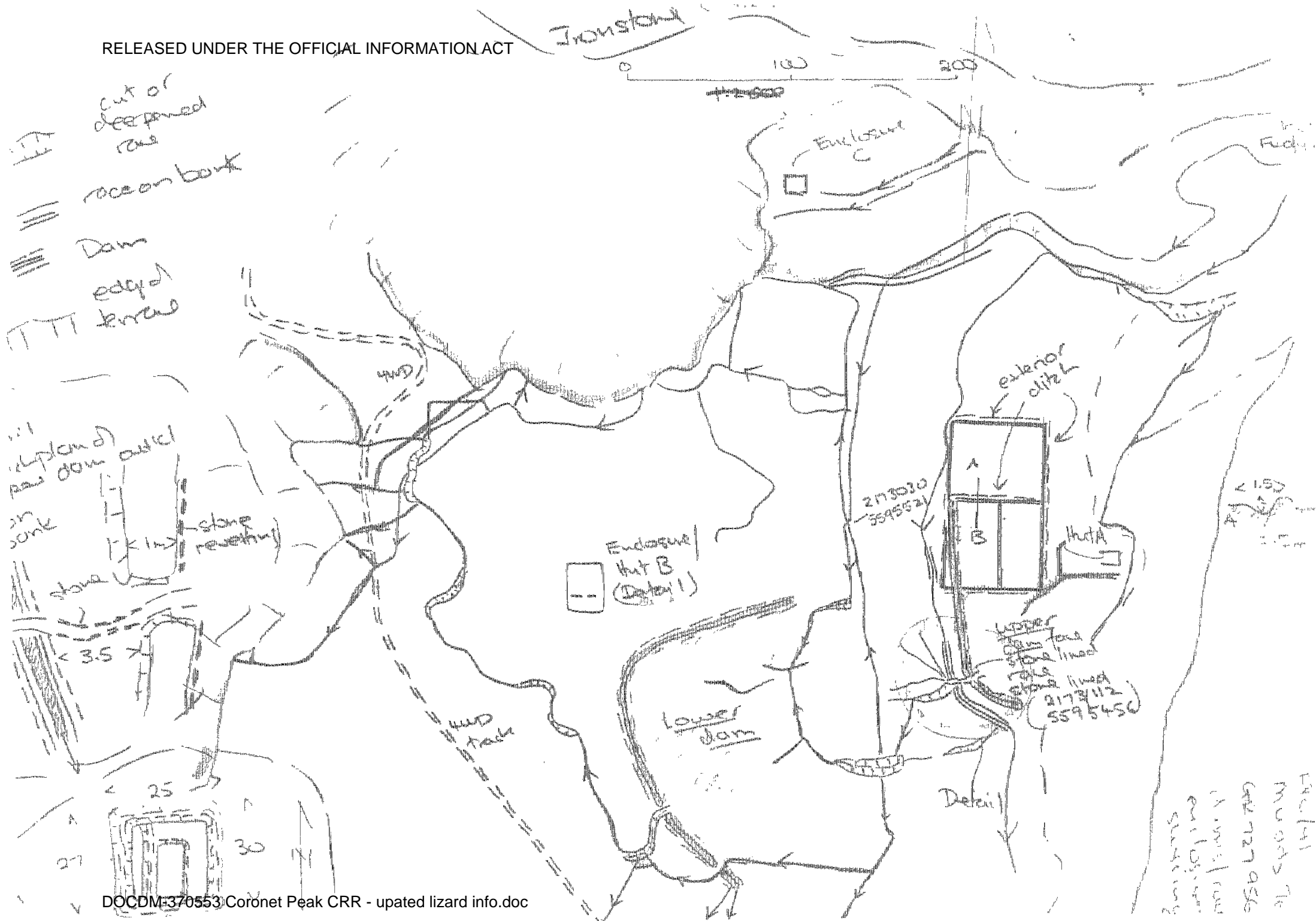
Both dams are fed by prominent springs at the foot of the Hillslopes.

There are three ditch and bank fence enclosures on the terrace. The most prominent is a large multiple enclosure built over by the upper (earlier) dam. Overall this is some 92 and 98 m on the long sides and 55 m at either end. The earliest part is probably the southern part since this has an external ditch and bank on its north side (section AB) enclosed by a further enclosure. This earliest enclosure may have been a house yard. The northern enclosure has an amorphous mound within that may be a mud brick hut so this may also have been a domestic enclosure. At the foot of the hill there is a further fairly amorphous cut into the base of the slope with drains running around and away from it. These domestic enclosures are the earliest features on the flat and have a more pastoral appearance/function rather than goldmining, or they may have been both.

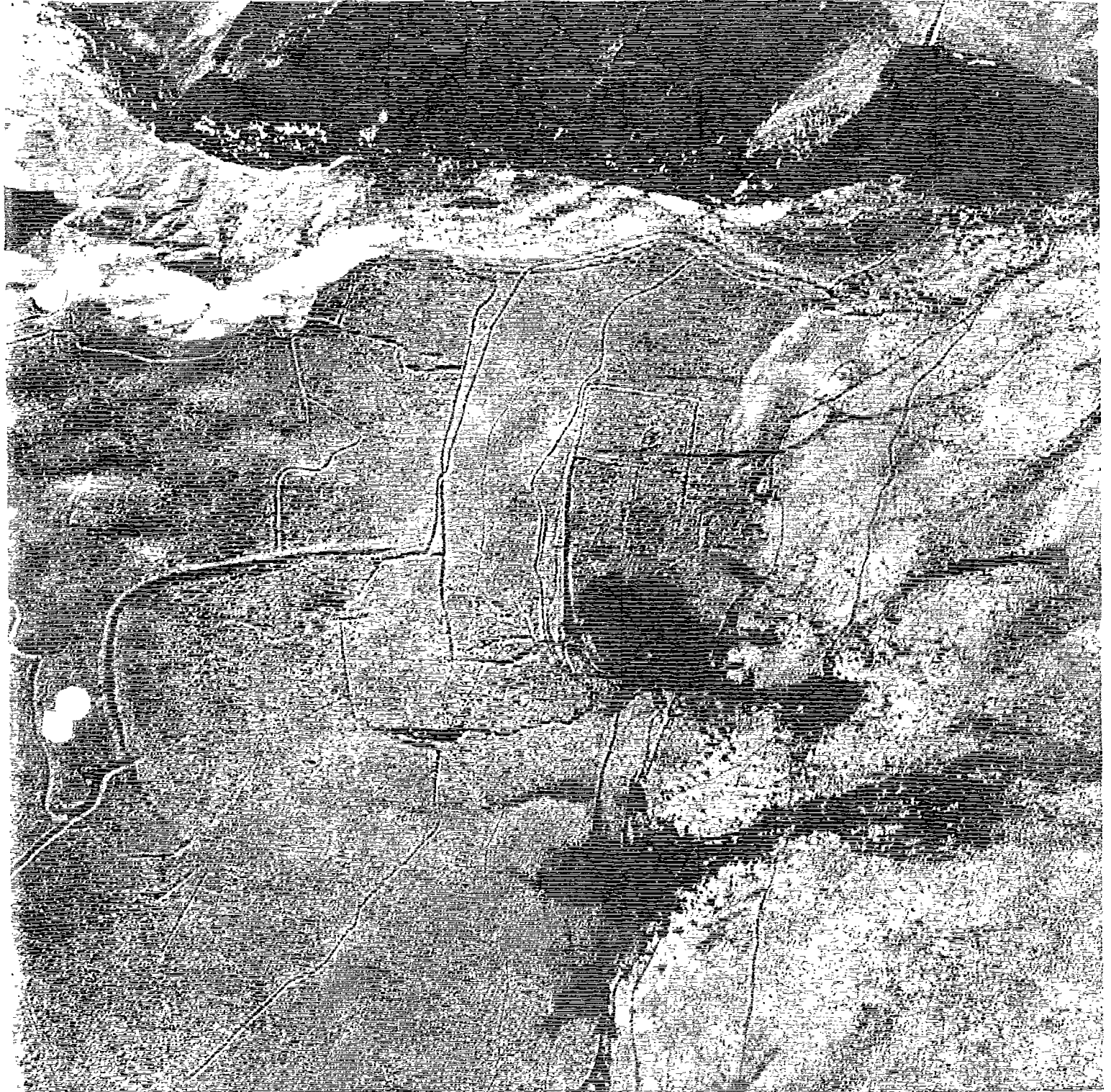
Hut B is another domestic enclosure. It has an irregular quadrilateral plan (30 x 26 x 27 x 27 m in plan) with an elevated central area and a further indistinct ditch and bank within. This seems likely to have been a sod brick hut within a ditch and bank enclosure, now much reduced.

Enclosure C was noticed after we left the field, i.e., not visited. It is on a lower terrace segment to the north (part of the Pleistocene outwash plain of the Ironstone Creek). It is 13 x 10 m in plan and is associated with two races long abandoned early in the sequence of sluicing on north face of the terrace.





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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, and Recommendations
for Outcomes of Tenure Review**

CORONET PEAK STATION

May 2005

**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 OUTCOMES OF TENURE REVIEW ON CORONET PEAK**

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

May 2005

CONTENTS

Contents	..	..	..	..	..	..	..	..	..	..	..	..	page
List of Figures	..	..	..	..	..	..	..	..	..	..	..	..	2
Introduction	..	..	..	..	..	..	..	..	..	..	..	..	5
Methods of survey and assessment	..	..	..	..	..	..	..	..	..	..	..	..	5
General description of Coronet Peak Station	..	..	..	..	..	..	..	..	..	..	..	..	5
Land Resources of Coronet Peak Station	..	..	..	..	..	..	..	..	..	..	..	..	7
Recreational use and potential new opportunities	..	..	..	..	..	..	..	..	..	..	..	..	7
Significant inherent values and their importance for recreation	..	..	..	..	..	..	..	..	..	..	..	..	9
Areas to be protected	..	..	..	..	..	..	..	..	..	..	..	..	11
Access requirements	..	..	..	..	..	..	..	..	..	..	..	..	12
Conservation Management Strategy for Otago	..	..	..	..	..	..	..	..	..	..	..	..	12
Conclusions	..	..	..	..	..	..	..	..	..	..	..	..	13
Acknowledgements	..	..	..	..	..	..	..	..	..	..	..	..	16
Map showing the proposed boundary between freehold and conservation land	..	..	..	..	..	..	..	..	..	..	..	..	17
Figures	..	..	..	..	..	..	..	..	..	..	..	..	Follow page 17

LIST OF FIGURES

Fig.1. Coronet Peak Station covers more than 20,000ha, most of which is mountainous with serious limitations for sustainable pastoral use. Its landscape, natural and historic values are on the other hand, very high. This means that it ranks very highly as a recreational area. This is particularly important because of its location close to Queenstown which is increasingly being recognised as the adventure capital of NZ. This aerial view is looking over Big Hill and up the Arrow River towards Macetown.

Fig. 2. Coronet Peak Station stretches from the Arrow River in the east, over the Harris Mountains and down to the Shotover River in the west. The Harris Mountains form the backbone of the property and include most of its highest points. These include Mt Hyde (2,056m) and Mt St Just (1,729m) which can be seen along the crest of the Mountain range which forms the skyline in this view from Skippers township.

Fig. 3. A large party of visitors starting out on the very scenic, historically fascinating and exciting trip to Skippers. This party, which included the late Arthur Borrell of 'The Branches' at the head of the valley, are enjoying the view down Long Gully towards the well-known 'Lighthouse rock' with Advance Peak towering over Macetown in the distance. All these features combine to give the area an international reputation and possible future recognition as National Park.

4. The dramatic Skippers Road climbs along the steep-sided gorge of the scenic Shotover River. Although now colonised by many exotic shrubs and trees such as briar, sycamore, pine and larch, the lower slopes are also host to many historic relics and a few old cottages, some of which are still in use as holiday cribs. Because of their heritage values, and the increasing public interest in heritage, the strip between the road and river should be protected as an Historic Reserve.

Fig. 5. Trampers descending from the summit of Advance Peak. These people have been enjoying magnificent 360 degree views, including the distant Harris Mountains, and exploring the remains of mile-high goldmines situated high on these slopes above Macetown. Although OK for today's well equipped trampers, the conditions would have been extreme for the nineteenth century miners who sought their fortunes in the mountains and valleys of Central Otago.

Fig. 6. Trampers take a break to enjoy the scenery at the junction of the Big Hill and Sawpit Gully tracks. Big Hill was originally the only route into Macetown until the road was pushed up the gorge. Big Hill is now a recognised Walkway which, together with the Arrow River Road, makes an excellent round trip for walkers and mountain bike enthusiasts.

Fig. 7. Visitors come to Skippers Canyon for many reasons, the newest of which is to see locations used in the filming in the epic "Lord of the Rings" trilogy. The site used to depict the 'Ford of Bruinen' is situated in a very narrow part of the canyon just below Skippers township. While pine and briar might be acceptable in a film location they pose problems for pastoral use and are an ecological threat as 'woody weeds'. Other woody plants such as matagouri also indicate potential for ecological restoration.

Fig. 8. Both Skippers and Macetown can now be reached easily by 4WD vehicles and while this might be good in allowing a wider range and increasing numbers, of visitors to experience these places, it is not without its environmental problems. The Arrow Road has many fords which are sometimes passable and sometimes not, while other parts of the road and particularly areas around Macetown are susceptible to abuse.

Fig. 9. This view shows trampers approaching Lochnagar which is one of many compelling recreational destinations beyond the northern boundary of Coronet Peak Station. The lake was formed when a massive landslide blocked the upper valley of Lake Creek by creating the huge dam that these trampers are crossing to reach the hut which is situated on The Branches Station.

Fig. 10. Coronet Peak Station provides several links to important recreational routes beyond its boundaries. This view from above Shotover Saddle is looking down the Tummel Burn to the Shotover. This route provides access to Mount Aspiring National Park, to which parts of The Branches and Coronet Peak Stations should be added at some time in the future. Tenure review can lay the foundations for such developments.

Fig. 11. The Polnoon Burn marks the northern boundary of Coronet Peak Station and offers a route to the Polnoon Hut and Sharks Tooth, a prominent and well known feature of the Matukituki valley. The Polnoon is also known for the diversion tunnel put in by optimistic miners seeking alluvial gold in the lower reaches of the creek bed. It is therefore a place worth visiting for its historical curiosity as well as the spectacle of an entire creek disappearing into a hole in the hillside.

Fig. 12. Most of the land below about 1,000m on Coronet Peak Station lies in steep- sided gorges. Although classified LUC Class VI, with medium limitations for pastoral use, these gorges are often infested with briar and other 'woody weeds' which are a real problem for farming and threaten the natural character of the landscape. Farming under covenant may be the solution for some of this land, so long as rigorous conditions are imposed, monitored and enforced.

Fig. 13. This view, looking down from Skytown to Macetown, shows some of the very extensive LUC Class VIIe lands which are largely tussock and rock and have serious problems of actual or potential erosion. It is unlikely such lands can be managed in a way that is ecologically sustainable and they should instead be considered for their high natural, landscape, recreational and historic values.

Fig. 14. Observations made during a recent inspection indicate that recently quite extensive work has been done on the felling and spraying of exotic trees. Wilding tree control should be a requirement of any new land holder following tenure review, whether that be the current lessee or DOC.

Fig. 15. Old routes still present today as 'paper roads' are important for at least two reasons: they link the past with the present for today's recreational users and add historical interest to the wonders of the natural landscape. Here a tramper on the summit of Advance Peak contemplates the old high level route along the ridge crest towards Vanguard Peak.

Fig. 16. Andersons stamping battery at Macetown is among the better known and more frequently visited historic remains of the goldmining era. The battery is situated within the existing small Historic Reserve which includes the township and a narrow strip up the Rich Burn. There are however, many more remote remains which could be included in a much enlarged reserve as an outcome of tenure review.

Fig. 17. The existing Reserve does include the beautifully restored Homeward Bound battery with its huge wooden hopper which fed gold-bearing ore into the crusher. The site is only about a half-hour walk from Macetown but is very close to the upper limit of the Reserve. Even the remains of the cableway which brought the ore down from the mine is excluded from the existing reserve.

Fig. 18. Further up the Rich Burn, at the junction with Sawyers Creek can be found the remains of the Premier battery and the associated cyanide vats which are illustrated here. In another tributary (Sylvia Creek) lie the remains of the All Nations and United Goldfields batteries. None of these historic sites are within the existing reserve which should be extended, through tenure review, to include all goldmining relics in the area.

Fig. 19. The former cableway which transported the gold-bearing ore from the mine high above the valley to the Homeward Bound battery in the Rich Burn is worth exploring to understand the lengths to which the miners would go to win their riches.

Fig. 20. Perhaps even more dramatic was the cableway at Skytown. Here a tramper stands at the top station near Skytown and looks down to Macetown. Exploration of this site makes a demanding but interesting and rewarding day trip.

Fig. 21. The exotic trees around the township at Macetown are out of character with many of the natural values of the area but they do provide a splash of colour in autumn. So long as they are contained within the township they may be acceptable and certainly provide some pleasant sheltered camping on the flats beside the Arrow River.

Fig. 22. Shelter of a very different, but equally necessary, kind was provided by the early stone cottages built in the nineteenth century. Some of these remain as relics of the past while some are still in use as holiday cribs. Trampers are seen here visiting Strohler's Cottage in the Shotover.

Fig. 23. Here a group of representatives from several NGOs sit on a terrace near the cemetery at Skippers and discuss the merits of different possible boundaries for the new conservation area on Coronet Peak Station. Their deliberations might even lead to possible new additions to Mount Aspiring National park.

Fig. 24. Consideration has been given to possible boundaries of a new conservation area in the northern part of Coronet Peak Station. The preferred line would run up an unnamed spur, seen here across the Shotover Valley from Skippers township, and thence to Vanguard Peak (partly obscured by cloud) and Malings Peak, before dropping down to the southern boundary of the existing Macetown Historic Reserve.

INTRODUCTION

This Report has been prepared following the Early Warning Meeting in September 2004 at which the properties entering the tenure review process in 2004 were introduced. Federated Mountain Clubs of NZ (FMC) made some comment at that meeting and afterwards submitted some brief notes on the desirable outcomes of tenure review. Subsequently we have had an opportunity to visit and inspect parts of the property. Following that inspection, this report was compiled from field, map and literature information. The report is offered as a contribution to the statutory consultation process undertaken by the Department of Conservation (DOC).

The 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, the landscape and historic values of Coronet Peak Station are outstanding and 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 also made to these features in this Report. In the case of Coronet Peak Station, much of the property has outstanding landscape values which complement the adjoining Harris Mountains and nearby Mount Aspiring National Park. Its public significance is also greater because of the iconic character and international reputation of Skippers and Macetown, and their proximity to Queenstown, which is rapidly becoming the adventure capital of NZ. There may be a case for adding a significant part of Coronet Peak pastoral lease to Mount Aspiring National Park at some time in the future.

METHODS OF SURVEY AND ASSESSMENT

A site visit and field inspection was carried out in February 2005. This report is based on the field inspection and a general knowledge of the Skippers, Harris Mountains, Macetown area. It is also based 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 acquired from other tramping trips in the general area. LUC maps have been used to assess the extent of soil types and topographic areas and their significance with respect to sustainable pastoral use. A study of "Outdoor Recreation in Otago" was undertaken by Mason (1989) and published by FMC. Reference is made to this Recreation Plan for Otago in this Report. The Conservation Management Strategy (CMS) for Otago has also been used as a source of reference.

GENERAL DESCRIPTION OF CORONET PEAK STATION

Coronet Peak Station is a large pastoral lease of about 22,000ha situated between the Shotover and Arrow Rivers, and includes the southern part of the Harris Mountains. It stretches for over 25km from the Polnoon in the north to the Coronet Peak Skifield and Arrowtown in the south. In fact the skifield is a DOC Recreation Reserve taken out of former pastoral leasehold land. The property boundaries with The Branches to the west and Mt Soho to the east. The valley floor of the Shotover River, which is mainly a dramatic gorge, rises from 500m at Long Gully confluence to about 600m near The Branches homestead. The Arrow River valley floor rises from about 400m at Arrowtown to 1200m at the junction of Tui Creek below Mt Hyde on the main ridge of the Harris Mountains.

The property is almost entirely mountainous with over half of its area situated above 1000m (Fig. 1). The highest point on the property is Mt Hyde (2,056m) on the Harris Mountains which form the divide between the Arrow and Shotover catchments (Fig. 2). Other named high points along the Harris Mountains, close to the eastern boundary, include Mt St Just (1,728m), Vanguard and Advance Peaks (1,780 and 1,748m respectively), and Malings Peak (1,558m) together with many unnamed peaks over 1,500m. There is also a prominent skyline ridge above and to the north of Arrowtown which includes Coronet Peak (1,651m), Brow Peak (1,456m) and Big Hill (1,137m).

Mason (1989) has commented on this mountainous area as follows:- *"The westward dip of these schist mountains is reflected by smooth, slabby western slopes and deeply dissected, precipitous eastern faces with rocky outcrops or escarpments."*

Three major parallel faults traverse the Shotover catchment; the Moonlight, Shotover and Polnoon faults which are generally on a north-south axis. These faults, with their subsidiary fractures and associated crush-zones are responsible for much of the present topography.

The soft and friable schist bedrock is very easily eroded and may account for the relative scarcity of obvious glacial features. 'The Island' at the mouth of the Polnoon is one good example of ice-contoured terrain. Most of the moraines and other glacial features are relatively fresh in appearance because the last ice advance occurred only 18,000 years ago. Cirques commonly occur at higher altitudes with the best developed examples facing east.

Periglacial features are extensive. Areas of solifluction debris on wet south-facing slopes are characterised by a rippled, hummocky texture. These occur up to depths of 30 m as a result of a history of freeze and thaw action, with fracturing and slumping of the weak underlying schists.

There has been profound post-glacial erosion causing deep V-shaped valleys and alluvial terraces which are up to 60m above present river levels. The lower Shotover and Moonlight Valleys show many classic examples not only of high-level terraces, but of 'valley-in-valley' forms.

Many of the lower valleys have lengthy gorges. The spectacular Shotover Canyon is nationally renowned for its scenic qualities. In contrast, many upper catchments are more open, often with wide, braided river flats. Vistas from these flats of distant snowy peaks are in marked contrast to the confinement felt within the deeply dissected landforms that predominate throughout the region."

Several features and destinations on Coronet Peak Station are very well known both within NZ and internationally. These include the iconic, scenic, historic, exciting and dramatic Skippers Road, the superb mountainous and precipitous landscapes to be seen from that road (Figs. 3 and 4) and the Coronet Peak Skifield, so conveniently located close to Queenstown. There are also historic remains and beautifully restored buildings at Skippers township, the famous rich goldfields of Macetown, the Arrow River and the Rich Burn and their tributaries, and the mile-high gold mines on Advance Peak (Fig. 5). Big Hill, the original route into Macetown, is now followed by a formally recognised NZ Walkway (Fig. 6). Increasingly the Shotover and Arrow River valleys are being commercially exploited by adventure tourism operators. These activities include rafting trips, bungy jumping, historic excursions and scenic drives including 4WD tours of sites used in the "Lord of the Rings" epic film trilogy (Fig. 7).

Coronet Peak pastoral leasehold land has a long history of recreational use and popularity. Probably best known is the skifield which operates on a Recreation Reserve enclave at the SW corner of the property. Harris Mountains Heliski Ltd. pioneered their operations on the Harris Mountains and freedom skiers have explored the back country on ski mountaineering trips for many years. The walk over Big Hill is popular both for its own sake as an opportunity to follow an historic route. It is usual to return to Arrowtown by the alternative and more recent Arrow River road. This road (as well as the Skippers Road) is increasingly used by recreational 4WD trips which are not without their problems of both numbers and damage to natural values (Fig. 8). There are also numerous tramping opportunities provided by the two branches of Skippers Creek, the upper Shotover (including Lochnagar (Fig. 9) and routes into Mount Aspiring National Park (Fig. 10). The Arrow River and its tributaries above Macetown, and the Harris Mountains abound with opportunities including a traverse linking Advance Peak and Vanguard Peak.

Mason (1989) states that within the entire Richardson and Harris Mountain area (230,000ha) the landforms are predominantly mountainous with few lakes or tarns other than Lochnagar (Fig. 9) on the Branches Station. This lake is essentially a geographical accident having been formed by a major collapse of a mountain top creating a rock dam and blocking off the upper catchment of Lake Creek. Although Coronet Peak Station occupies the southern part of the Harris Mountains and many tributary catchments of both Arrow and Shotover river systems, there are no lakes on the property.

LAND RESOURCES OF CORONET PEAK STATION

Despite its large size there is little low country with high or even moderate pastoral value on Coronet Peak Station (Fig. 11). The lower country is confined to the steep gorges of the Shotover and Arrow Rivers. Although these gorges are long (over 30km in the Arrow and about 25km in the Shotover) and almost entirely enclose the property, there is less than 6,000ha of land Classified LUC Class VI (defined as having only medium suitability for pastoral use). This land is mainly characterised by Dunstan Steepland and Nevis High Country Yellow Brown Earth soils in the Upper Shotover, above Skippers Township, and Arrow Steepland Yellow Grey Earth soils in the lower gorge. This LUC Class VI land on the lower slopes and in the gorges could be capable of productive use but briar and 'woody weeds' are a real problem for farming – and the threat of spread of wilding trees is a real problem for conservation. These issues will be discussed at greater length later.

The Nevis soils are usually associated with the lower slopes (below about 1,000m) in the Upper Shotover and the drier Arrow Steepland soils occupy a similar position in the Lower Shotover. Higher slopes are generally characterised by Carrick Hill and Dunstan Steepland High Country Yellow Brown Earth soils. Above about 1,000m these soils are usually classified LUC Class VIIe with serious limitations for pastoral use.

The highest country, which occupies nearly 3,000ha on the Harris Mountains from Vanguard Peak to the northern boundary of the property, is situated above about 1,500m and is characterised by Dunstan Steepland soils together with extensive areas of Alpine Steeplands and bare rock (Figs. 1 and 2). This country has been classified LUC Class VIII and is entirely unsuited to pastoral use. It does however have very high landscape, natural and recreational values as will be discussed later.

Between the extremes of the steep and narrow gorges and the high mountains lies a large area (about 13,000ha) almost entirely occupied by Dunstan Steepland soils with associated Carrick Hill soils. Both these soil areas have both been classified LUC Class VIIe with serious limitations for pastoral use, mainly due to actual or potential erosion (Fig. 12). These Class VII soils have severe limitations for pastoral production related to both soil and climatic conditions. Natural soil fertility is low and grazing and burning remove essential nutrients from soil reserves. Unless removals through burning and in animal products (meat and wool) are balanced by replenishment in the form of fertiliser, soil depletion will be inevitable and the system will be unsustainable. Nutrient balance might be maintained by fertiliser use but at these higher altitudes, plant growth response is small and it is usually not economically justifiable to apply the necessary fertiliser. Furthermore, the term 'ecologically sustainable' is not defined adequately in the CPL Act, 1998, but it has been suggested that 'ecological sustainability' will involve maintenance of not only nutrient status but also biological diversity. Pastoral use, especially if that included fertiliser use and burning, would not favour or promote biodiversity. For all these reasons, freeholding would not promote 'ecologically sustainable' land use.

One alternative is that these lands are restored to full Crown ownership and control to be managed by DOC for conservation and recreation purposes. The removal of grazing and burning would allow recovery of formerly more extensive ecosystems such as shrublands and eventually forest on the lower slopes, and alpine cushionfields higher up. The tussock grassland would also benefit from the cessation of grazing and their vigour would improve. FMC favours this approach.

RECREATIONAL USE AND POTENTIAL NEW OPPORTUNITIES

Mason (1989) has stated that *"the region [the mountain country between Lakes Wakatipu and Wanaka] provides settings for the most diverse range of outdoor recreational activities in Otago. A powerful combination of striking scenery, rich history, continental climate and close proximity to major holiday centres provides a focus for year-round and at times intensive recreation. It is a resource of major significance, providing outlets for Otago and Southland residents, as well as for other NZ residents and overseas visitors."*

The recreational significance of Coronet Peak Station has long been recognised and lies in its setting with fantastic landscapes and scenic views in almost all directions. It is bounded by two major rivers and straddles the southern part of the Harris Mountains. It includes named peaks such as Mt Hyde (2,056m), Mt St Just (1,728m) (Fig. 2). Vanguard and Advance Peaks (Fig. 5) (1,780 and 1,748m respectively), and Malings Peak (1,558m)

together with many unnamed peaks over 1,500m on the Harris Mountains which form the divide between the Arrow and Shotover catchments (Fig. 2). There is also a prominent skyline ridge above and to the north of Arrowtown which includes Coronet Peak (1,651m), Brow Peak (1,456m) and Big Hill (1,137m).

Recreation potential on Coronet Peak Station is not confined to the major mountains and valleys but includes many opportunities for travel in and through untracked side valleys. Many kiwi trampers look increasingly for such opportunities as the traditional back country is turned into 'Great Walks'. Coronet Peak could provide almost endless opportunities for untracked routes in challenging places. Routes are already available in to Mount Aspiring National Park from the Upper Shotover (Figs. 9 and 10) and others include the lesser known Polnoon route (Fig. 11) to Sharks Tooth and the Matukituki.

The best known, and most popular recreational activity in both the Shotover and Arrow valleys is visiting the historic sites in both valleys. Many of these sites are easily accessible by 4WD (Fig. 8) and others involve shorter or longer walks with a wide range of challenge. Rafting, bungee jumping, recreational 4WD activities and heliskiing are now threatening the supremacy of the more traditional historic excursions into the Shotover, Skippers and Macetown areas.

In part, the popularity of this area is related to its proximity to Queenstown which is increasingly being recognised as the outdoor adventure capital of NZ. While much of Queenstown tourism is related to thrill-seeking activities, increasing numbers of hikers and trekkers are displacing traditional kiwi users to more remote destinations. It is important that a wide range of opportunities remain available for all recreational users and especially those who are attracted to the mountains. New opportunities on Coronet Station can help to satisfy this need.

FMC is in the business of promoting those kinds of recreation which involve facing nature on nature's terms, and without motorised assistance. The tenure review of Coronet Peak Station provides an opportunity to add to the number and range of such opportunities available in the Queenstown area.

We believe that tenure review needs to take a wider view than just what is available within the boundaries of the lease under review. We would argue that factors which relate to an overflow of recreational activities onto neighbouring properties should also be taken into consideration, and provision made for access where appropriate. On Coronet Peak Station these factors would include the following:-

- Proximity to Queenstown and the need to cater for a wide range of outdoor activities.
- Proximity to Mount Aspiring National Park via Tyndall Stream and the Shotover Saddle.
- Possibility of future additions to Mount Aspiring National Park including parts of The Branches and the northern end of Coronet Peak.
- Exploration of the historical sites in both the Shotover and Arrow River catchments.
- The possibilities for untracked travel on the Harris Mountains (including the Polnoon) and trips over into the Matukituki catchment, including the Soho-Golspie route, Roses Saddle and Shotover Saddle.
- Opportunities for both summer and winter outdoor activities, including heliskiing and ski mountaineering.
- Extended travel northwards up the Shotover to Lochnagar, and Shotover Saddle.
- Extending the historic reserve at Macetown to include the many tributaries of the Rich Burn and the historic features and relics they contain, including Skytown and the remains of the cableway.

Specifically there is a need for traditional routes to be confirmed and guaranteed through the provisions of tenure review:-

- Confirm the actual Arrow Road as the legal road thereby securing public access for foot, bike, horse and vehicle from Arrowtown to Macetown.
- Confirm the actual formation of the Skippers Road as the legal road for foot, bike, horse and vehicle access to the Upper Shotover and The Branches from the Coronet Peak Skifield access road.
- Confirm legal public walking and bike access over the Big Hill Walkway and Sawpit Gully.
- Secure public walking access to Advance Peak and Vanguard Peak from Macetown and the high level ridge route between Advance and Vanguard Peaks.

- Secure public walking access from Vanguard Peak to the Shotover valley, either via an existing legal road, or via the leading spur opposite the Skippers bridge.
- Secure public foot access to all historic sites in the Shotover and Arrow River/Rich Burn catchments is required: so long as the Skippers and Arrow Roads are legal and the historic sites become an Historic Reserve this will be assured. If these sites do not become Historic Reserve then alternative provision for public access will be required.

FMC believes that the recreational importance and value of leases in the tenure review process should be assessed not only on its present usage but also on its potential. This is because current usage is usually less than its potential for a number of reasons. Unlike many other pastoral leases undergoing tenure, public use of Coronet Peak leasehold land has long been extensive and at times intensive, but there is still significant potential for greater use and it is the full range of possibilities which should be considered during this tenure review.

There is also significant potential for commercial guided recreation on the property. In recent years there have been major developments in rafting, bungee jumping and guided 4WD trips and in the Shotover and Arrow catchments, and in heliskiing on the Harris Mountains. Some similar or related activities could still be operated by the holders of Coronet Peak as a concession over newly created conservation land, assuming that much of the high country is returned to full Crown ownership.

SIGNIFICANT INHERENT VALUES AND THEIR IMPORTANCE FOR RECREATION

This report focuses on those features of Coronet Peak Station which are known to be important for public recreational interests. It should be noted that while some of this interest focuses on access, the natural values and particularly the landscapes have a fundamental impact on the recreational value of the back country. The landscapes as seen from The Skippers and Arrow roads are well known to the general public through publicity material and photographic images such as appear regularly on calendars. These iconic landscapes are of national and international significance and deserve to be protected for future generations of New Zealand visitors, international tourists and recreation people to marvel at and enjoy.

It has been stated above that Shotover and Arrow valleys have been known as a tourist and recreation destinations for many years. This is largely because of the quite outstanding scenic and historic values included within these dramatic landscapes and the variety of recreational opportunities located in and around the valleys. The views to be had from the many vantage points and opportunities for exploring not only the natural features but also the relics of the gold mining era, also greatly influence the quality of recreational experience enjoyed. It is for this reason that reference is made here to landscape, historic and natural values of this property.

The outstanding inherent value of Coronet Peak Station is the splendour of the landscapes in this mountainous country so close to Queenstown. *The striking landscape of the region is a major component of the total recreational experience* (Mason 1989).

Mason (1989) has described the vegetation of the general Harris and Richardson Mountains areas as follows:- *"The vegetation is predominantly tussock grassland but there are also considerable areas of sub-alpine shrubland, beech forest, and high-alpine vegetation. Alpine fellfield and shingle screes are also extensive at higher altitudes, in some places extending well downslope. These normally only support sparse vegetative cover. Alpine cushion communities are more localised. Tall tussock grassland dominated by the narrow-leaved snowgrass is the dominant vegetation above 900 m on sunny faces, or 600 m on shady faces, and may grow up to 1,900 m on stable slopes. Sub-dominant species may include varying proportions of hard tussock, blue tussock, dracophyllum species and alpine herbs."*

At lower altitudes pastoral activity has either partially destroyed or replaced tall tussock grassland with hard tussock or in places silver tussock. Exotic sward grasses such as browntop and sweet vernal have become dominant on many valley floors, terraces and sunny faces, as a result of the depletion of low altitude short tussock grassland."

Inspection of those parts of Coronet Peak Station accessible from the Skippers/Branches and Arrow Roads has revealed that much of the country is indeed much modified by pastoral activity, and invasion by exotic plants

(Figs. 4, 7 and 12). The lower slopes include much briar among the matagouri and ragwort in the grasslands dominated by browntop and sweet vernal. In gullies and sheltered areas there are extensive and apparently spreading invasions of pine, fir, larch, sycamore and hawthorn. Natural values of much of the land on Coronet Peak Station (below about 1,200m) are thus compromised by pastoral influences of grazing and burning, and invasion by exotic species. At higher altitudes the natural values of the tussock grasslands and alpine areas are much greater (Figs. 1 and 13).

In 1989 Mason commented: *"Localised exotic forests are establishing themselves over sluiced tailings and hillsides at Skippers and over the Queenstown faces of Ben Lomond. European larch and Douglas fir are colonising short tussock grassland and shrublands, dramatically altering the landscape in these areas. Problem species are Pinus contorta, Corsican and Scots pines, larch, sycamore, and Douglas fir. In 1986 it was estimated that 1500 ha in the Queenstown-Lakes district was covered by wilding exotic trees, by far the largest infestation in the South Island high country. The Department of Lands and Survey undertook eradication and containment programmes on Ben Lomond, Queenstown Hill Closeburn, Bobs Peak, Coronet Peak, and Skippers. This is being continued by DOC. The ending of subsidised work schemes has severely limited control efforts. Substantial areas of exotics were planted in upper Skippers Creek during the 1970s, to assess whether such plantings would reduce the amount of river sediment. Despite Forest Service and MWD assurances at the time that these trees would be removed, they remain [in 1989]. Unless they are removed the trees will spread, severely affecting reserve areas and ultimately the Mount Aspiring National Park."*

Observations made during a recent inspection indicate that recently quite extensive work has been done on the felling and spraying of exotic trees. Wilding tree control should be a requirement of the new land holder subsequent to tenure review, whether that be the current lessee or DOC (Fig. 14).

The historic remains of goldmining, including some spectacular sluicings, extensive water races, historic buildings and other relics provide added interest for recreational visitors, and indeed are the reason some people come to the valleys of the Shotover and Arrow Rivers.

The historic sites are mainly found in the Arrow and Shotover valleys where mining activity was concentrated in the nineteenth and early twentieth centuries. There is also evidence of high level mining activity on Advance Peak (Fig. 5) and at Skytown (Fig. 13). There was also extensive high level travel and exploration as is evidenced by the network of legal roads which traverse Coronet Peak Station (Fig. 15). These old routes are important for at least two reasons: they link the past with the present for today's recreational users and add historical interest to the wonders of the natural landscape. Among the better known and frequently visited historic remains of the goldmining era is Andersons stamping battery at Macetown (Fig. 16). A little further up the Rich Burn is the restored Homeward Bound battery (Fig. 17) while still further upstream the remains of cyanide vats can be seen at the junction with Sawyers Creek (Fig. 18). The remains of the former cableway which transported the gold-bearing ore from the mine high above the valley to the Homeward Bound battery in the Rich Burn is worth exploring to understand the lengths to which the miners would go to win their riches (Fig. 19). Perhaps even more dramatic is the cableway at Skytown where you can stand at the top cable station and look down to Macetown (Fig. 20). Exploration of this site makes a demanding but interesting and rewarding day trip for those who have time to camp at Macetown (Fig. 21).

The exotic trees around the township at Macetown are out of character with many of the natural values of the area but they do provide a splash of colour in autumn. So long as they are contained within the township they may be acceptable and certainly provide some pleasant sheltered camping on the flats beside the Arrow River (Fig. 21). Shelter of a very different but equally necessary kind was provided by the early stone cottages built in the nineteenth century. Some of these remain as relics of the past while some, like Strohler's Cottage (Fig. 22) in the Shotover, are still in use as holiday cribs.

Most of the historic sites in the immediate vicinity of Macetown are already protected within a small historic reserve confined to the township and the narrow valley floor (Figs. 16 and 17). It would be sensible if, through tenure review, these other sites were recognised as one large historic reserve which might still be able to support limited stock grazing. Similarly most of the historic sites in the Shotover valley would be protected if the entire

strip of land between the Skippers/Branches Road and the Shotover River became Historic Reserve as an outcome of tenure review (Fig. 4).

AREAS TO BE PROTECTED

There are two major reasons why FMC believes that significant areas of Coronet Peak Station, on most land above about 1,000 to 1,100m straddling the flanks of the Harris Mountains, should be restored to full Crown ownership and control. The first of these is the existing significant inherent landscape and recreational value and the potential of the existing tussock grasslands, herbfields, and alpine areas to recover from past grazing and burning and regain their former ecological status. The second is that they cannot be managed in a way that promotes ecologically sustainable management (as required by the Act) without nutrient replenishment (see the discussion above).

FMC therefore considers that these lands (generally of LUC Class VIII and VIIe, above about 1,000 to 1,100m) should be restored to full Crown ownership and control to be managed by DOC for conservation and recreation purposes.

There is however, a real problem of how to separate the proposed conservation land from possible new freehold. Any contour fencing at about 1,000m would be unstable and liable to destruction by snow slides, and also would be intrusive into the outstanding natural landscape. Furthermore, stock grazing and camping effects along any such fenceline would exaggerate the landscape intrusion of the fenceline. On balance then, contour fencing seems undesirable so some alternative partitioning between conservation land and freehold land needs to be devised.

It has been suggested above that significant areas towards the northern end of Coronet Peak Station have potential to be added to Mount Aspiring National Park at some future date. Reasons for this include their outstanding landscape value, existing and potential recreational value and unsuitability for ecologically sustainable pastoral use. If a suitable area was identified and delimited by natural features such as water courses, spurs or catchment boundaries, these could be used instead of undesirable contour fencing.

Such a suggestion could lead to the inclusion of some lower altitude land within the proposed new conservation area and a possible counter-balancing inclusion of areas above 1100m (in some cases up to about 1,500m eg Brow Peak) in the proposed freehold. Note that the latest DOC Guidelines on recognition and definition of "Significant Inherent Values" allow for this kind of trade off. Because Coronet Peak Station poses some unusual land allocation problems this is offered as an unusual solution. Because the proposed new freehold area is likely to contain significant areas of LUC Class VIIe land, protection under covenant with some strict conditions of grazing management, stock limitation and enforcement would seem to be appropriate (Fig. 12).

Possible alternative locations for the boundary of the proposed new conservation area (and possible later addition to Mount Aspiring National Park) have been debated with other NGOs (Fig. 23) and the most favoured options are as follows:-

- (a) from Campbells Saddle up an unnamed spur to Mt Hyde
- (b) from a point near Skippers Bridge, up an unnamed spur to Vanguard Peak and Malings peak and thence down (via points 1184, 1260, 1263, 1188, 1194, 1220, and 1260) to the southern boundary of the existing Macetown Reserve (Fig. 24).

All these boundaries follow high ground or catchment boundaries and would be feasible to fence (unlike watercourses). The boundary preferred by FMC is that described at (b) for a number of reasons:- it would include the main ridge of the Harris Mountains and Mts Hyde and St Just as well as Vanguard, Advance and Malings Peaks within the possible National Park addition, and it would enable many of the historic sites in the Shotover valley and almost all the sites in and around Macetown to be included. If the latter option (b) was chosen this would create an area of about 11,000ha of new conservation land of very high conservation, recreation and historic value. If this proposal was adopted, and the proposed area was eventually added to Mount Aspiring National Park, it would provide two new road accessways into the National Park, perhaps taking some of the pressure off the Matukituki Valley access.

If this proposal was adopted it would still leave a large area with significant inherent landscape and historic values in the southern half of the property without formal protection. It may be possible to manage some of this area in a way that is ecologically sustainable and to protect the inherent values under covenant if sufficiently rigorous conditions were imposed. The covenant would require strict conditions as follows:-

- A farm management plan should be drawn up to demonstrate how the area would be managed in an ecologically sustainable manner.
- Protection against the threats of wilding tree spread would be required.
- Other weed and pest control would be necessary.
- No burning would be permitted.
- Strict stock limitations would have to be imposed.
- Strict adherence to these conditions would be required.
- Monitoring should be carried out to ensure that no adverse effects were accruing.
- Any infringements would incur penalties.

ACCESS REQUIREMENTS

We note that *"the securing of public access to and enjoyment of reviewable land"* is one of the statutory objectives of tenure review. Although there have been few problems with recreational access in the past, there is no guarantee that this would continue to be the case under some new freehold ownership, nor is there any certainty that actual road formations follow legal roadlines. The following access provisions will be required:-

- Confirmation of the formation on the ground as the legal road up the Arrow River valley to Macetown.
- Confirmation of the formation on the ground as the legal road up the Shotover River valley to The Branches.
- Confirm legal public walking and bike access over the Big Hill Walkway and Sawpit Gully.
- Secure public walking access to Advance Peak and Vanguard Peak from Macetown.
- Secure public walking access along the high level route between Advance Peak and Vanguard Peak.
- Secure public walking access from Vanguard Peak to the Shotover valley, either via an existing legal road, or via the leading spur opposite the Skippers bridge.
- Secure public foot access to all historic sites in the Shotover and Arrow River/Rich Burn catchments is required. So long as the Skippers and Arrow Roads are legal and the historic sites become Historic Reserve or other Conservation Area, this will be assured. If these sites do not become Historic Reserve or Conservation Area, then alternative provision for public access will be required.
- The laying off of marginal strips along all qualifying waterways.

CONSERVATION MANAGEMENT STRATEGY (CMS) FOR OTAGO

There are important statements in the Conservation Management Strategy (CMS) for Otago, in which the Arrow Area is recognised as a Special Place. The objective for this area which includes much of Coronet Peak Station is:-

"To protect and preserve the unique character of the Arrow Valley with its rich historic heritage and variety of recreational opportunities in an attractive, often spectacular, setting."

The Queenstown area has also been recognised as a Special Place where the objective is:

"To recognise the value of an extensive protected area system around Queenstown as a basis for the protection of amenity, landscape, natural, cultural and historic resources of significance to Queenstown and New Zealand and for recreational enjoyment. Then to implement and protect that system."

The implementation methods by which the objective would be achieved include:-

"Formal protection and physical stabilisation will be sought for the All Nations Battery and Skytown settlement

and other historic sites."

"Opportunities arising through pastoral lease tenure reviews will be taken to survey for natural and historic resources and negotiate their protection, and to improve or secure public access to significant recreational opportunities. Fencing of protected areas will be considered in the context of reviews of tenure of properties adjacent.

"Walkways will be secured and gazetted where not on land administered by the Department. Walking tracks will be upgraded to prescribed standards for short walks and will be maintained. Opportunities such as tenure review will be taken to negotiate expansion of the network, close gaps in the lake edge and backcountry continuous walkways. Support will be given to walkways in the rural basin." And

"Opportunities arising out of negotiations for tenure review of pastoral leasehold properties will be taken in order to improve the protected area system and access to it."

Finally, it should be noted that the stated priority for the Arrow Area is: *"Since a relatively small proportion of sites of historic or recreational interest in this Special Place are protected, the priorities will be negotiation and implementation of protection."*

For the Queenstown Special Place the stated priority is: *"The protection and enhancement of indigenous natural resources and recreational opportunities in natural walk-in settings on the higher ground around Queenstown will be the priorities in this Special Place."*

It is clear that there are major opportunities in the tenure review of Coronet Peak Station to achieve significant progress towards the attainment of the objectives and priorities declared by DOC in the CMS for Otago.

CONCLUSIONS

The tenure review of Coronet Peak Station is important as it provides an opportunity to secure public use and enjoyment over an area of outstanding scenic, historic and recreational value; an area which also has highly significant landscape and gold mining features.

The main conclusions reached by this report are as follows:-

1. Much of Coronet Peak Station has outstanding natural, historic and landscape values. Its recreational significance is greater because of its proximity to Queenstown which is increasingly being recognised as the adventure capital of NZ. Several features and destinations on Coronet Peak Station are very well known both within NZ and internationally. These include the iconic, scenic, historic, exciting and dramatic Skippers Road, the superb mountainous and precipitous landscapes to be seen from that road and from the Coronet Peak Skifield, so conveniently located close to Queenstown.
2. Mason (1989) has stated that *"the region [the mountain country between Lakes Wakatipu and Wanaka] provides settings for the most diverse range of outdoor recreational activities in Otago. A powerful combination of striking scenery, rich history, continental climate and close proximity to major holiday centres provides a focus for year-round and at times intensive recreation. It is a resource of major significance, providing outlets for Otago and Southland residents, as well as for other NZ residents and overseas visitors."*
3. The Harris Mountains form the divide between the Arrow and Shotover catchments. Coronet Peak Station includes named peaks such as Mt Hyde (2,056m), Mt St Just (1,728m), Vanguard and Advance Peaks (1,780 and 1,748m respectively), and Malings Peak (1,558m) together with many unnamed peaks over 1,500m.

4. This review provides an opportunity to increase the range of opportunities available in the general Queenstown area where there is increasing demand for recreational opportunities. This is due to the increasing numbers of tourists and an increasing diversity of recreational needs. It can provide opportunities to cater for the demands of tourists and to satisfy a real need for true back country and remote experiences for traditional kiwi backcountry recreation people too.
5. The review is also an opportunity to ensure that the quality of recreational experience in the backcountry of Coronet Peak is maintained by recognising and protecting the significant natural, landscape and historic values described in this report.
6. Coronet Peak has a long history of recreational use and popularity. Harris Mountains Heliski Ltd. pioneered their operations on the Harris Mountains and freedom skiers have explored the back country on ski mountaineering trips for many years.
7. The sheer beauty of the Shotover and Arrow valleys and the grandeur of the Harris Mountains are natural attractions which cannot fail to appeal to those with a love of the NZ outdoors.
8. Despite its large size there is little low country with high or even moderate pastoral value on Coronet Peak Station. In part this is due to the lower country being mainly confined within the steep gorges of the Shotover and Arrow Rivers.
9. Some land on valley sides may be capable of sustainable pastoral use but 'woody weeds' will be a continuing problem for pastoral use. 'Woody weeds' are also an indication of ecological restoration potential. Briar and wilding trees are problems which might be addressed by attaching conditions or covenants to any new ownership of Coronet Peak.
10. The highest country, which is situated above about 1,500m, has been classified LUC Class VIII and is entirely unsuited to pastoral use. It does however have very high landscape, natural and recreational values.
11. Between the extremes of the steep and narrow gorges and the high mountains lies a large area classified LUC Class VIIe with serious limitations for pastoral use. It is doubtful whether this land could be managed in a way that is ecologically sustainable for reasons discussed above. Freeholding would almost certainly not promote 'ecologically sustainable' land use.
12. The recreational significance of Coronet Peak Station lies in its setting between two scenic rivers with dramatic views in almost all directions. When the higher country (LUC Class VIII, which is entirely unsuitable for pastoral use) is returned to the Crown these lands will become freely available for public recreational use.
13. The best known, and one of the most popular recreational activities in the valleys of Coronet Peak Station is exploring the remains and relics of the goldmining era. However, rafting, bungee jumping and recreational 4WD activities and heliskiing are now threatening to displace the supremacy of the more traditional historic excursions into the Shotover, Skippers and Macetown areas.
14. In part, this popularity is related to proximity to Queenstown which is increasingly being recognised as the outdoor adventure capital of NZ. While much of Queenstown tourism is related to thrill-seeking activities, the increasing numbers of hikers and trekkers are displacing traditional kiwi users to more remote destinations. It is important that a wide range of opportunities remain available for all recreational users and especially those who are attracted to the mountains. New opportunities on Coronet Station can help to satisfy

this need.

15. The following factors should be born in mind when considering the outcomes of tenure review on Coronet Peak Station:-

- Proximity to Queenstown and the need to cater for a wide range of outdoor activities.
- Proximity to Mount Aspiring National Park via Tyndall Stream and the Shotover Saddle.
- Possibility of future additions to Mount Aspiring National Park including parts of The Branches and the northern end of Coronet Peak.
- Exploration of the historical sites in both the Shotover and Arrow River catchments.
- The possibilities for untracked travel on the Harris Mountains (including the Polnoon) and trips over into the Matukituki catchment, including the Soho-Golspie route, Roses Saddle and Shotover Saddle.
- Opportunities for both summer and winter outdoor activities, including heliskiing and ski mountaineering.
- Extended travel northwards up the Shotover to Lochnagar and Shotover Saddle.
- Extending the historic reserve at Macetown to include the many tributaries of the Rich Burn and the historic features and relics they contain, including Skytown and the remains of the cableway.

16. Despite the pressures of tourism and commercial use, it is important that a wide range of opportunities remain available for all recreational users, and especially those who are attracted to the mountains. There is no reason why certain commercial activities could continue as business concessions even if the land is returned to Crown ownership.

17. Significant areas towards the northern end of Coronet Peak Station have potential to be added to Mount Aspiring National Park at some future date. The preferred southern boundary of the proposed new conservation area (and possible later addition to Mount Aspiring National Park) is from a point near Skippers Bridge, up an unnamed spur to Vanguard Peak and Malings Peak, and thence down to the southern boundary of the existing Macetown Reserve. If this proposal was adopted and the proposed area was eventually added to Mount Aspiring National Park, it would provide two new road accessways into the National Park, perhaps taking some of the pressure off the Matukituki Valley access.

18. If this proposal was adopted it would still leave a large area with significant inherent landscape and historic values in the southern half of the property without formal protection. It might be possible to manage some of this area in a way that is ecologically sustainable and also to protect the inherent values under covenant if sufficiently rigorous conditions were imposed. The covenant would require strict enforcement.

Most of the historic sites in the immediate vicinity of Macetown are already protected as a small historic reserve. It would be sensible if, through tenure review, other sites in the Rich Burn catchment were collected together into one historic reserve. This would only be necessary if the larger conservation area proposal described above was not accepted.

20. The following access provisions will be required:

- Confirmation of the formation on the ground as the legal road up the Arrow River valley to Macetown.
- Confirmation of the formation on the ground as the legal road up the Shotover River valley to The Branches.
- Confirmed legal public walking and bike access over the Big Hill Walkway and Sawpit Gully.
- Secure public walking access to Advance Peak and Vanguard Peak from Macetown.
- Secure public walking access along the high level route between Advance Peak and Vanguard Peak.
- Secure public walking access from Vanguard Peak to the Shotover valley, either via an existing legal road, or via the leading spur opposite the Skippers bridge.
- Secure public foot access to all historic sites in the Shotover and Arrow River/Rich Burn catchments. So long as the Skippers and Arrow Roads are legal and the historic sites become Historic Reserve or other

Conservation Area, this will be assured. If these sites do not become Historic Reserve or Conservation Area, then alternative provision for public access will be required.

- The laying off of marginal strips along all qualifying waterways.

21. It is clear that there are major opportunities in the tenure review of Coronet Peak Station to achieve significant progress towards the attainment of objectives and priorities declared by DOC in the CMS for Otago.

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