

Crown Pastoral Land Tenure Review

Lease name :Sandy Point

Lease number :PO 350

Conservation resources report

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.

The report attached is released under the Official Information Act 1982.

Copied October 2002

**DOC CONSERVATION RESOURCES REPORT ON
TENURE REVIEW OF**

SANDY POINT PASTORAL LEASE

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PART 1

INTRODUCTION

1.1

Sandy Point Pastoral Lease (PL) was inspected on the 29 – 31 October 2001 as part of a review of the pastoral lease tenure. The tenure review was requested by the lessees of the property and is being undertaken under the provisions of the Crown Pastoral Land Act 1998. As part of this process, a range of specialists in inherent values have visited the property and contributed to this report.

Sandy Point PL comprises 1797.8319 ha of pastoral lease, which is run in conjunction with around 250 ha of freehold land.

Sandy Point is located in the Upper Clutha Valley on the Luggate - Tarras Road approximately 30 km from Wanaka. The lease extends from the Clutha River/Mata-au (adjacent to the point on the river known as Sandy Point) across alluvial fans and outwash terraces and includes part of the Grandview Range extending south east from Lake Hawea. This mountain range forms part of the eastern enclosing range of the Upper Clutha Valley. The property extends east, across this mountain range to West Coast Gully.

West of the Grandview Range ridge, the pastoral lease area drains to the Clutha River/Mata-au and east of the ridge drains eastwards into the Lindis River. From the Clutha River/Mata-au at 240 m, the property rises to an elevation of 1178 m asl.

Sandy Point is in the Central Otago Ecological Region and the Lindis Ecological District. A Protected Natural Areas Programme survey report has been completed for this ecological district in 1995. No recommended areas for protection were identified on the property.

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PART 2

INHERENT VALUES: DESCRIPTION OF CONSERVATION RESOURCES AND ASSESSMENT OF SIGNIFICANCE

2.1 LANDSCAPE

Methodology:

The pastoral lease is divided into landscape units (LUs). For each unit a landscape character description is provided along with a description of the key visual and scenic attributes present. An evaluation summary is then presented using a range of criteria to assess each unit and assist with determining each unit's high inherent values. The criteria include:

-Intactness: - refers to the condition of the natural vegetation, patterns and processes and the degree of modification present.

-Legibility: - refers to its expressiveness - how obviously the landscape demonstrates the formative processes leading to it.

-Aesthetic Factors: - include criteria such as *distinctiveness* - the quality that makes a particular landscape visually striking. Frequently this occurs when contrasting natural elements combine to form a distinctive and memorable visual pattern. A further criteria assessed under aesthetic factors is *coherence*. This is based on characteristics including intactness, unity, continuity, and compatibility. Intrusions, alterations, disruptions tend to detract from coherence.

-Historic Factors - refers to historically valued attributes in the context of a high country landscape.

-Visibility - refers to the visibility from public places such as highways, waterways or local vantage points.

-Significance - is the significance of the characteristics and features, or combination of characteristics and features within individual units. If they are locally, regionally or nationally significant.

-Vulnerability - is a measure of each landscape unit's susceptibility to further ecological deterioration, which would impact on landscape values.

Landscape Units:

Sandy Point is broken into three landscape units based on identified land systems (refer map 4.2.3). These include:

Upper Clutha Valley alluvial fans and terraces

Grandview front faces

Breast Mountain Lands (Back block)

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Landscape Unit 1 (LU1) - Fans and Terraces

Character Description:

This unit refers to the outwash terraces and alluvial fans that extend from the base of the Grandview Range to the Clutha River/Mata-au. A high terrace escarpment separates the upper terrace of the alluvial fans from the narrow river flats adjacent to the river.

Soils are thin and stony. The upper terrace alluvial fans slope away from the range towards the river. The transition from the base of the range to the alluvial fan is very sharp, distinct, and expressive of the formative landscape processes.

The flats are developed farmland sub-divided into paddocks with exotic shelterbelts, cultivated areas and exotic pasture. State highway 8a (Luggate to Tarras) bisects the alluvial fans approximately midway between the break in slope and the river.

The high terrace escarpment more or less follows the path of the river and defines the river corridor to the east. The river escarpment supports scattered short tussock and open shrublands, pasture and the odd pine. Rabbits appeared quite numerous. A group of pines extend down the escarpment at Sandy Point. A large natural erosion face is a feature at Sandy Point and is a well-known local landmark.

Deep Gully has cut down into the upper terrace and has provided a refuge for kanuka/manuka shrubland. This links the shrubland on the ranges to remnant shrubland lining the river and to kanuka/manuka on the flats across the river, providing a degree of visual and ecological connectivity. A band of willows line the river. The lower flats are mainly lucerne and pasture. Overall the unit is totally modified apart from scattered remnants on the escarpment and within the Deep Creek chasm.

Visual & Scenic Values:

The flats and terraces contain significant visual and scenic values derived from the combination of the agricultural land use set within the spectacular montane landscape of the Upper Clutha Valley. The indigenous vegetation has however been almost entirely modified.

The terraces are expressive of formative landform processes and the contrast between the river outwash terraces, fans, and range is visually impressive and striking. The river landscape including the lower terrace and high escarpment is highly scenic but again natural values are low. The eroded escarpment face at Sandy Point is also visually impressive and visible over a wide area.

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Evaluation Summary:

Criteria	Value	Comment
Intactness	Low	Much of the original character transformed. Landscape pattern and processes fragmented
Legibility	High	
Aesthetic Factors	High Medium	Along river corridor Elsewhere
Historic Factors		None known
Visibility	High Low	Upper terrace Lower terrace
Significance	Low	
Vulnerability	Low	

Landscape unit 2 (LU2) - Grandview Front Faces

Character Description:

The front faces are characterised by mainly colluvial slopes; smooth rounded ridges; long and clearly defined gullies and an absence of rock outcrops. Long low ridges and gullies together with conical shaped low hills are characteristic at the base of the range.

Vegetation is strongly modified short tussock grassland with extensive sweet briar, matagouri and manuka shrub at lower elevations. Depleted snow tussock comes in at approximately 700 metres. Bracken occurs in lower gully areas and shady aspects. The whole of the front faces has been oversown and topdressed (O.S. & T. D). Hieracium and woody weeds are a significant component.

Vegetation on sunny faces contrasts significantly with shady faces. Sunny faces are more denuded. Sweet briar is also more prevalent on sunny faces. Low colluvial hills are characteristic of the front of the range.

From a distance remaining shrubland appears patchy and primarily confined to gullies with light green briar dominant at lower altitudes.

Visual & Scenic Values:

The front faces form part of the eastern wall of the Upper Clutha Valley. While there are no distinctive or outstanding features, the range as whole is significant and a dominant landscape feature within the context of the valley.

Native vegetation cover is highly modified. Scattered remnant patches of native shrubland and tussock are however significant in terms of local character and identity. The front faces of the range (ie. of Sandy Point) are visible over a wide area of the Upper Clutha including SH 6 (Cromwell to Wanaka) and SH 8a Luggate to Tarras.

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Evaluation Summary:

Criteria	Value	Comment
Intactness	Low	Highly modified some patchy remnant shrubland
Legibility	Medium	
Aesthetic Factors	Low to medium	
Historic Factors		None known
Visibility	High	
Significance	Significant	Visual enclosure to Upper Clutha Valley
Vulnerability	Low	Existing remnants have survived grazing and fire

Landscape unit 3 (LU3) - Breast Mountain Lands (Backblock)

This unit includes all of the mountain backcountry from the Grandview ridge crest to the eastern boundary (West Coast Gully). It forms one relatively homogenous unit which includes three catchments. A large middle catchment which drains north- northeast to the Lindis River, a small northern catchment below Trig Hill draining northeast and part of the catchment forming the east face above West Coast Gully.

The unit is typical of the Breast Land System comprising smooth undulating ripply colluvial slopes.

In the northern catchment, the upper slopes are similar in character to the remainder of the backblock. The main vegetative pattern consists of very depleted snow tussock on lower slopes with scattered patchy shrubland which is mainly confined to gullies. Snow tussock increases in density and its condition improves towards the summit area around Trig Hill. Lower slopes have been burned and all have been O.S. & T.D. The lower ridge towards the junction with West Coast Gully is distinctively rocky with bluffs. This is confined almost entirely to the north face of the ridge. It is combined with shrubland consisting of mainly kanuka and manuka which spills into and across the gully. The south ridge above the rocky zone is mainly scabweed and devoid of other native cover.

The middle catchment includes a large portion of the backblock and appears to have been entirely oversown and top-dressed. Tussock cover is severely depleted on sunny faces with a greater component on shady faces.

The north facing lower catchment is a repeat of the north catchment with steep rocky outcrops and bluffs with patchy shrubland. The shrubland has been burnt with stock access cut through at intervals.

Tussock cover is highly variable and while on some south faces it is reasonably uniform and contiguous, on others it is depleted. Stock camps occur along the summit ridge and other ridges and high points.

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The east face above West Coast Gully is similar in character to the remainder of the backblock with some fairly uniform tussock remaining on shady faces but with fewer tussocks and a greater exotic component on sunny faces.

Visual & Scenic Values:

The backblock has no distinctive or outstanding visual and scenic values. The majority is a typical dissected landform with highly modified, and in places degraded native cover. Tussock cover is discontinuous over large areas.

The rocky ridge and associated shrubland in the lower northern catchment close to West Coast Creek has some visual and scenic values but is small and inaccessible. It is a fragment remnant that forms a reasonably significant landscape feature in an otherwise modified area.

The most significant aspect of visual and scenic values associated with the back block is the spectacular views out of the Upper Clutha Valley and views towards Wanaka and the main divide.

Evaluation Summary:

Criteria	Value	Comment
Intactness	Low	Highly modified
Legibility	Medium	
Aesthetic Factors	Low to medium	Loss of natural character through modification of vegetation
Historic Factors		None known
Visibility	Low	
Significance	Low	
Vulnerability	Low	Ecological degradation has already occurred

Significant Landscape Values:

Two areas are identified on Sandy Point as having significant landscape values.

They include -

The rocky ridge and associated shrubland below Trig Hill (side tributary of West Coast Gully.) This small area is identified as a Significant Natural Landscape Feature.

The second area is the escarpment and lower river flats adjacent to the Clutha River/Mata-au and the lower Deep Gully chasm. This area is identified as having high scenic values but culturally modified.

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2.2 LANDFORMS & GEOLOGY

Sandy Point extends from the Clutha River/Mata-au across the dividing Grandview Range into the West Coast Gully catchment, which is a tributary of the Lindis River.

In the Lindis district the dislocation of the mid tertiary peneplain responsible for Central Otago's large scale basin and range topography is expressed on a smaller scale and a different style from the standard pattern. The old erosion surface is warped into a set of north-east trending folds, with traces of the overlying Manuherikia group sediments. The district merges into the main uplift area of the Southern Alps to the north-west.

The glaciers which excavated Lakes Wanaka and Hawea have penetrated well down the Clutha in the past and had a strong influence on the landform of the western part of the Lindis Ecological District, steepening the valley wall and leaving extensive moraines and outwash gravels modified by younger alluvial fans. Except for the effects of this externally derived glacier, the mountains of the Lindis district have been essentially unglaciated and retain characteristically smooth, rounded ridges and summits. (Grove 1994)

There are three main geologic structures on Sandy Point:

1. The eastern 80% of the property is Chlorite subzone 3 schist.
2. The Clutha River/Mata-au Terraces are outwash gravels, morainic deposits and fan talus of the Camp Hill Formation associated with the Hawea glacial advance.
3. In the middle on the faces extending up to the dividing ridge is an area of glacial outwash gravels of the Luggate formation.

2.3 CLIMATE

Annual rainfall averages around 560mm, with a tendency for an early summer concentration. Summer temperatures are high. Winters are cold with severe frosts. Snow is common but lies only in higher areas for any length of time. There is a soil moisture deficit for much of the summer especially on sunny aspects. North-west and south-west winds can be severe at times.

2.4 VEGETATION

Ecological Setting:

The Lindis Ecological District (ED) is a c.102,500 ha area that extends from the Clutha River/Mata-au in the west, to Lindis Pass and the St Bathans Range in the east. Today pasture grasses form a major component of the vegetation cover, especially at low and mid altitudes. Narrow-leaved snow tussockland is the major native vegetation of the district, remaining common at high altitudes. Other native tussock communities are fescue tussocklands which remains widespread at mid altitude and slim tussockland on shady faces above 1200m. Alpine fellfields and snowbanks are uncommon. In drier areas scabweed (*Raoulia*) cushionfields occur. Mountain beech forest remnants are larger and more common than elsewhere in Central Otago. Shrublands are common with kanuka shrubland on sunny, steep, rock faces and matagouri dominated shrublands associated with fertile gullies and fans.

Description of the vegetation:

Vegetation overview of the property:

The low altitude flats have been intensively developed. The hills have been topdressed and oversown to their tops and though they retain some fescue tussock (*Festuca novae-zelandiae*) this is generally heavily modified. Narrow-leaved snow tussock (*Chionochloa rigida*) only remains above c. 850m, and is generally at a low density and contains an abundance of *Hieracium lepidulum*. Steep sunny aspects have been degraded and contain scab weed and other *Raoulia* and cushion species. Shrublands are found in most gullies, though these are generally fragmented. At low to mid altitude, briar rose (*Rosa rubiginosa*) is common. Extensive kanuka shrubland is found on steep rocky faces with a sunny aspect in the north-east of the property. A feature of the property is the abundance of the broom *Carmichaelia petriei*, with it being the dominant woody species in some parts. These broom shrublands are interesting but problematic because they may be an induced vegetation type (ie: benefited from topdressing).

Grassland and Tussockland:

Terraces and low altitudes: The low altitude terraces and most gentle lowland areas have been cultivated.

Low – mid altitude slopes: The lower and mid altitude slopes are dominated by exotic pasture species. The woody component, mainly briar and matagouri (*Discaria toumatou*), varies from scattered shrubs to open shrubland, with patchy fescue tussock.

Mid – upper altitude slopes: The mid to upper slopes have a modified fescue tussockland dominated by exotic grasses and herbs. These again have a variable woody component and patches of bracken (*Pteridium esculentum*) fernland.

Upper altitude snow tussockland: The highest altitude areas (especially shady aspects) retain narrow-leaved snow tussockland. This snow tussockland is restricted in extent. This community is visually dominated by narrow-leaved snow tussockland with a cover of only c. 20%, with much exotic grass, fescue tussock and a mix of native and exotic herbs and subshrubs. Species include: *Gaultheria novae-zelandiae*, *Leucopogon fraseri*, *Ranunculus multiscapus*, *Raoulia subsericea*, *Anisotome aromatica*, *Coprosma petriei*, *Celmisia gracilentia*, *Carmichaelia crassicaule*, *Pimelea oreophila*, *Aciphylla aurea*, *Leucopogon colensoi* and *Discaria toumatou*.

Shrublands:

Shrublands are largely restricted to south and west facing gullies, fans and locally on steep hillslopes. There are three major shrubland types as follows:

Mixed shrubland: This community is found in gullies at lower altitude. The community is dominated by mingimingi (*Coprosma propinqua*) and/or kanuka (*Kunzea ericoides*), with much matagouri and bush lawyer (*Rubus schmidelioides*) with variable amounts of *Carmichaelia petriei*, briar and hawthorn (*Crataegus monogyna*), *Coprosma ciliata*, *C. cheesemanii*, mountain wineberry (*Aristotelia fruticosa*), *Olearia odorata*, *O. cymbifolia*, koromiko (*Hebe salicifolia*), *Muehlenbeckia complexa* and *Clematis marata*.

Kanuka shrubland: The most extensive areas are in the tributaries of West Coast Gully. The community is dominated by kanuka, with occasional matagouri, mingimingi and briar.

Broom shrubland: Broom shrublands are a distinctive feature of the property. They are found on the sunny aspects on the eastern slopes of the property. These broom shrublands occur at both lower and upper altitudes.

At lower altitude this community consists of relatively tall *Carmichaelia petriei* (visually dominant, but with a vegetation cover of c. 20%), with briar and occasional matagouri and mingimingi. The ground cover is dominated by exotic grasses and herbs.

At upper altitude the community consists of *Carmichaelia petriei* (again visually dominant, but with a vegetation cover of only c. 10%), with some briar and occasional matagouri. The ground cover is dominated by a mixture of native and exotic grasses and herbs with much fescue tussock.

Other Communities:

Clutha River/Mata-au scarp: There is a steep, actively eroding scarp above the Clutha River/Mata-au, in the south-west of the property being largely gravelly scree. The vegetation is sparse but includes scattered kanuka, scabweed (*Raoulia* species) and other herbs.

Scabweed herbfield: This community is found at low-mid altitude on dry sunny faces. The ground cover is dominated by bare ground (soil and gravel, c. 70% cover). The vegetation is dominated by scabweeds (*Raoulia australis* and *R. beauverdi*), *Leucopogon fraseri*, *Colobanthus brevisepalus*, *Stellaria gracilentia*, *Trifolium arvense*, *Veronica serpyfolia* and others.

Rock outcrops/bluffs: The largest of these were in the West Coast Gully catchment. Vegetation includes *Helichrysum intermedium*, *Pimelea traversii*, *Leucopogon fraseri*, *Brachyglottis haastii*, *Luzula banksiana*, *Asplenium richardii*, *A. flabellifolium*, *Chielanthes humilis* and others.

Wetland: These are generally dominated by exotic grasses but include *Carex secta*, cutty grass (*Carex coriacea*), silver tussock (*Poa cita*), and maori onion (*Bulbinella angustifolia*).

Flora:

A flora of 100 native species was recorded during the inspection. The following species are listed on national threatened (DOC 2002) and uncommon species lists:

Carmichaelia vexillata, Status – Gradual decline. This species was locally common on some track sides on the east side of spot height 982m.

Coral broom (*Carmichaelia crassicaule*), Status - Gradual decline. This species was recorded in the northern tributary of West Coast Stream. The species remains relatively widespread in the interior of eastern South Island, however is suffering from loss of habitat, animal browsing and recruitment failure.

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Raoulia parkii, Status – Gradual decline. This species was found at a few sites on the property.

Urtica aspera, Status - sparse. This species was thought to have been identified under shrubland under the northern tributary of West Coast Stream.

Other species which have a threat ranking are as follows:

Acaena buchananii – Gradual decline

Clematis marata - Sparse

Colobanthus brevisepalus – Data deficient

Coprosma Intertexta – Sparse

Raoulia beauverdii – Sparse

Vittadinia australis – Data Deficient

Species which are locally uncommon include *Olearia cymbifolia* and *Ophioglossum coriaceum*.

Weed species:

Mouse ear hawkweed (*Hieracium pilosella*) is common on lower and mid altitude slopes (especially on sunny faces) but less common at higher altitudes.

Tussock hawkweed (*Hieracium lepidulum*) is common at higher altitudes, where it is often more common than mouse ear hawkweed.

Briar (*Rosa rubiginosa*) is by far the most common exotic woody species. Mostly it is sparsely distributed, but on the eastern slopes of the property it can be locally dominant in shrublands.

Gorse (*Ulex europaeus*) and broom (*Cytisus scoparius*) are both relatively localised, largely being confined to lower altitude gullies and gorges.

Hawthorn (*Crataegus monogyna*) is scattered through the lower altitude gully shrublands.

Significance of Vegetation:

Three areas on the property contain vegetation of significance:

Tributary of West Coast Gully:

The diversity of the vegetation combined with the naturalness of the site and sustainability lead to the identification of this site as significant.

This area is of moderate size (c. 50ha) and contains a rich diversity of vegetation, which has patterning dependent upon aspect, topography, soil depth, moisture and other physical factors. The vegetation is highly representative of the Lindis ED and is described as follows:

-Rock outcrops/bluffs: This is the largest rock outcrop/bluff system on the property. The area is on a sunny aspect and extends from 650m to 880m.

-Kanuka shrubland: This is the most extensive area of kanuka shrubland on the property. The shrubland is largely on the sunny face within the rock outcrop/bluff system but also extends across the creek to the north and over the ridge to the south.

-Scabweed herbfield: This community is found above the rock outcrop/bluff system, within the kanuka shrubland. The community is fragmented and found on the driest sites.

-Fescue tussockland: This community was found along the ridge above the kanuka shrubland.

- Mixed shrubland: This is found along the creek.
- Wetland: There are localised open wet areas along the creek.
- Snow tussockland: This community was on the shady face above the mixed shrubland. The community is dominated visually by narrow-leaved snow tussock.

Broom shrubland, Deep Gully:

This is a relatively small native broom shrubland. This shrubland is an uncommon vegetation type, both in the Lindis ED and the Central Otago Ecological Region. The values found in this area duplicate some of the values found in the nearby Lindis RAP 13. RAP 13 is larger (40ha c.f. 10ha) and has a greater diversity of vegetation. Due to the unusual nature of this community it has high inherent values.

Clutha River/Mata-au scarp: This area includes the steep eroding slope above the Clutha River/Mata-au. The landform differs from that found elsewhere on the property. A number of plant species were restricted to this part of the property. The area has a sparse vegetation cover and is being invaded by pine trees. There are similar areas on the adjacent property which have some low altitude short tussockland in association. This area is partly protected by an existing marginal strip.

2.5 FAUNA

2.5.1 Invertebrate Fauna:

Human influences on Sandy Point have resulted in considerable modification to natural ecosystems with the loss of woody vegetation, *Chionochloa* dominated grasslands and soils. However, being situated in the upper Clutha /Mata-au River and experiencing the dry climate conditions with cool winters and hot summers, some ecosystems have retained their natural character and are significant habitats of invertebrates. There are disturbed areas of shrubland, herbfield and stream or river riparian areas. Representative areas are:

Spur, rock bluff and gully area:

A tributary of West Coast Gully is located in an upper part of Camp Creek catchment between 650 -939 m. The spur and stream link downstream to bluffs and gullies that have natural character (a recommended area for protection, Grove et al. 1995). Significant invertebrate habitats include spur top herb and short tussock, flanking kanuka shrubland, rock bluffs with a northern aspect, dense shrub-liane-*Carex* associations along the stream and herb-shrub-grass associations in the lower valley slopes. The moth *Dichromodes gypsotis* is an uncommon species whose larvae live on rock face lichens. The moth, *Dasyuris* nsp. lives on the herb *Anisotome imbricata* or *A. aromatica* in the lower gully and several moth species have larvae feeding on the leaves and litter of shrub *Olearia odorata* or the liane *Muehlenbeckia australis* found along the stream. Many insects were noted including stream stoneflies, moths whose caterpillars eat grasses, herbs and litter, red admiral butterfly (caterpillars eat native nettle found along the stream), and stem-boring or ground-dwelling beetles. Collectively, these insects are indicative and representative of non-forest ecosystems that are a feature of the Central Otago Ecological Region rather than the nearby Lakes Ecological Region.

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Lowland native broom *Carmichaelia petriei* shrubland:

This shrubland is located on the toe of a west-facing slope having good soil fertility. The area spans 350 -440 m asl and is therefore of low altitude. Few such sites have natural character. While not surveyed for invertebrates, the shrubland will be good habitat for seasonal flower visiting insects and will host a range of shrubland litter and soil dwelling insects. For example, case moths, chafer beetles, cicada and the moth *Pseudocoremia colpogramma* whose caterpillars feed on native broom.

Terrace scarp on the Clutha River/Mata-au:

A scarp of the Clutha River/Mata-au has actively eroding gravels forming a scree spanning from 300 -260 m asl on the margin of the river. This is colonised by scattered pines at the northern end and by a sparse cover of adventive herbs and grasses naturally associated with river floodplain. Insects normally associated with floodplain and naturally open areas with bare ground are also present. These include the cicada *Kikihia angusta*, boulder butterfly *Boldenaria* nsp., Stiletto fly *Anabarynychus* sp. and plume moth *Pterophorus innotatalis*. All are common and widespread species. However, these insects among others present are also characteristic and representative of open areas associated with natural erosion or flood disturbance along the Clutha River/Mata-au.

Significance of invertebrate fauna:

There were no invertebrate species ranked as "threatened" identified during the survey. However, all three areas described above are considered significant in that they are the specialised habitats for invertebrate assemblages of non-forest ecosystems endemic in the Central Otago Ecological Region. For example a small number of the shrub *Olearia odorata* is present along the stream in the tributary of West Coast Gully and is elsewhere host to threatened moths (Patrick 2000). Some of these are likely to be present.

2.5.2 Herpetofauna:

In 1986, this property was included in surveys conducted by the NZ Wildlife Service to determine the distribution of the endangered Otago and Grande skinks (*Oligosoma otagense* and *O. grande* respectively). During that survey one Otago Skink was recorded in the West Coast Gully Creek habitat.

In 1996 a re-inspection of the West Coast Gully area recorded 6 Otago skinks (Loh and Tocher). In 1998, 4 Otago skinks were recorded(Thorne).

During the tenure review inspection no Otago skinks were seen despite of returning with Stu Thorne to the areas surveyed in 1998.

In the West Coast Gully catchment McCann's skinks were common in a variety of habitats ranging from semi-developed tussock with strong exotic inter tussock species right through to unmodified indigenous grasslands, and kanuka shrublands.

Inspections of the Clutha Terraces, found McCann's skink (*Oligosoma maccanni*) on rough ground and in gullies. McCann's skinks were also common in other places on the western portions of the property.

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Significance of Herpetofauna:

Otago Skinks are a threatened species – gradual decline (Hitchmough, R. [compiler] in press). They have been found repeatedly in West Coast Gully.

2.5.3 Avifauna:

The following birds were recorded on this inspection:

SPECIES	LOCATION	STATUS
Californian quail	Clutha Terraces, Front hill country	Introduced, Game bird
Harrier hawk	Clutha Terraces, Front hill country	Native, Protected
Skylark	Clutha Terraces, Dividing spur	Introduced, Unprotected
Feral pigeon	Clutha Terraces	Introduced, Unprotected
Greenfinch	Front hill country	Introduced, Unprotected
Shinning cuckoo	Front hill country	Native, Protected
Grey warbler	West Coast Gully catchment	Native, Protected
Chaffinch	West Coast Gully catchment	Introduced, Unprotected
South Island Tit	West Coast Gully catchment	Native, Protected

2.5.4 Aquatic Fauna (Fresh water fish):

A total of 6 sights were electric fished, 3 on the Clutha side and 3 within the West Coast Gully side of Sandy Point PL.

Clutha Side:

These 3 individual sites were upstream from the main 4WD vehicle access track. At the time of inspection water flows were very low, and may dry up completely during the main summer period. All sites were classed as spring-fed upland streams. Farming practices have likely modified these 3 streams by reducing riparian vegetation. However the lower reaches of these streams to their junction with the Clutha/Mata-au have a landform character and seasonal flow pattern distinctly associated with the intermontane of Central Otago and McKenzie Basins. The cannels are deeply entrenched in glacial outwash terraces and the distribution of bare coarse substrate particles in the stream beds is indicative of violent storm water flows that are frequent enough to prevent vegetation establishment. Apart from scattered native shrub elements, the biota of these unique ecosystems is largely exotic. No fish were found in these streams.

West Coast Gully:

Three individual sites were fished, all part of the West Coast Gully stream, which flows into Camp Creek and then into the Lindis River. West Coast Gully stream is a permanent stream and has water flows throughout the year. The sites fished were within the upper reaches of West Coast Gully, where some impacts of over sowing were evident and limited grazing impacts were observed. Brown trout were the only fish found, in all 3 sites.

There are no records of fish previously noted from Sandy Point PL. However information from the NZ Freshwater Fish Database has both species of trout, upland common bullies and

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longfinned eels recorded in the lower Lindis River. Also one unidentified galaxiid has previously been found.

There are no native fish values within Sandy Point PL.

2.6 HISTORIC

There are no recorded archaeological sites on Sandy Point. The upper Clutha was the scene of much small scale alluvial mining in the late 19th century - mainly by the Chinese. This area has been surveyed as part of the Upper Clutha Development project but nothing was reported in the area of Sandy Point.

2.7 PUBLIC RECREATION

2.7.1 Physical Characteristics:

Sandy Point is bisected by the Luggate - Tarras Road, SH 8A. The property is well served by farm tracks that provide access through the property. Access from SH 8A traverses through the adjoining freehold land, before passing into the lease and winding up the front face of the Grandview Range.

Other access is available from each end of the main Grandview ridge from the adjoining properties of Glenfoyle and Long Gully. A separate route travels west via trig O No 2, and onto the adjoining Deep Creek property.

There is a formed track from SH 8A west to the Clutha River/Mata-au.

2.7.2 Legal Access:

Apart from SH 8A, there are no other legal roads of significance on the property. To the north of the property is a legal but unformed road near the crest of the Grandview Range. This road extends about 1km into the property and has no particular use.

Between SH 8A and the Clutha River/Mata-au are various mainly closed roads, some of which have been sold (and now owned by Contact Energy). They are of no help in facilitating public access around the property.

There is an existing marginal strip along the Clutha River/Mata-au.

2.7.3 Activities:

There is little public use of Sandy Point at present. Some quail shooting takes place during the season, and there may be some informal recreation associated with the Clutha River/Mata-au.

Opportunities exist for public access along the Grandview Range in association with adjoining properties. This could become a popular route for walking, mountain biking and horse riding.

PART 3

OTHER RELEVANT MATTERS & PLANS

3.1 Consultation:

An early warning meeting with NGOs was held on the 8/10/01. The following matters were raised:

- The landscape was not seen as important.
- The shrublands at the back of the property were identified.
- Public horse access was seen as important.

A submission from FMC was received in December 2001. It identified the need for a wider marginal strip along the Clutha River/Mata-au to allow for practical walking access. Also an easement to allow for Public foot, mountain bike and horse access along the top of the Grandview Range with alternate routes past trig 'O no2' and another down to SH 8A, were suggested.

A submission was received from the Upper Clutha Branch of Forest and Bird dated June 2002. The landscape was identified as worthy of a covenant to protect it from earthworks and tree planting. Public access along the Grandview Range was seen as extremely important.

3.2 District Plans:

The western part of the property is located within the General Rural zone of the Queenstown Lakes District Plan. The eastern part is located within the Rural Resource zone of the Central Otago District Plan.

In general, the proposed Central Otago District Plan (amended to incorporate Council decisions) does not act as a trigger for the protection of tussock grasslands and smaller wetlands and forest areas. Resource consent is required for excavations or tree planting within specified distances of a water race or irrigation pipeline, and for development work within 10m of any water body. Resource consent is also required for tree planting of evergreen species with wilding spread capabilities. The property is not in the area of Outstanding Landscape. There are no registered historic sites, or areas of significant indigenous vegetation and habitats of significant indigenous fauna and wetlands as set out in the schedules of the plan. Protection is limited to the controls set out above.

In general, the proposed Queenstown Lakes District Plan (amended to incorporate Council decisions) does not act as a trigger for the protection of tussock grasslands and smaller wetlands and forest areas. Resource consent is required for subdivision and subsequent development, buildings, forestry and also ski area activities. No forestry shall be undertaken in an alpine area with an altitude greater than 1070m. The protected landscape provisions of the Plan are in the process of going through the Environment Court. Parts of this property could be in an Area of Outstanding Landscape. There are no registered historic sites, or areas of significant indigenous vegetation as set out in the schedules of the plan. Protection is limited to the controls set out above.

PART 4

MAPS ETC.

4.1 Additional information

References:

Grove P.(ed) (1995) Lindis, Pisa and Dunstan Ecological District – A survey report for the Protected Natural Areas Programme. New Zealand Protected Natural Areas Programme Series No. 36, Department of Conservation, Dunedin.

Molloy J., Bell B., Clout M. N., de Lange P J., Gibbs G W., Given, D. R., Norton, D. A., Smith N. and Stephens R. T. T. 2001. Classifying species according to the threat of extinction : a system for New Zealand. New Zealand Department of Conservation - Biodiversity Recovery Unit, Wellington.

Molloy J. and Davis A. 1994. Setting priorities for the conservation of New Zealand's threatened plants and animals. Department of Conservation, Wellington.

Patrick, B. H. 2000. Lepidoptera of small-leaved divaricating Olearia in New Zealand and their conservation priority. Science for Conservation 168. Department of Conservation, Wellington.

Hitchmough, R. (compiler) in press: New Zealand Threat Classification System lists - 2002.

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4.2 Illustrative Maps

4.2.1 Topo/Cadastral

4.2.2a Landscape Units

4.2.2 Landscape Significance

4.2.3 Ecological Significance

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4.3 Appendices

- A1 Plant Species List
- A2 Photos
- A3 FMC submission
- A4 Forest and Bird submission

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Plant species list -Sandy Point:

APPENDIX 1

	Habitat	abundance	
<i>Acaena anserinifolia</i>	rs	o	*
<i>Acaena buchananii</i>	st	o	*
<i>Acaena caesiiglauca</i>	st,t	c	*
<i>Acaena dumicola?</i>	rs	o	*
<i>Aciphylla aurea</i>	st,t	f	*
<i>Anisotome aromatica</i>	t	c	*
<i>Anisotome brevistylus</i>	t	o	*
<i>Anisotome flexuosa</i>	t	u	*
<i>Aristotelia fruticosa</i>	rs	o	*
<i>Asplenium flabellifolium</i>	ro	c	*
<i>Asplenium richardii</i>	ro	o	*
<i>Asplenium trichomanes</i>	ro	u	*
<i>Blechnum penna-marina</i>	t	o	*
<i>Brachyglottis haastii</i>	ro	f	*
<i>Bulbinella angustifolia</i>	r	o	*
<i>Carex breviculmis</i>	c,f	c	*
<i>Carex coriacea</i>	r	o	*
<i>Carex flagellifera</i>	r	u	*
<i>Carex secta</i>	r	o	*
<i>Carmichaelia crassicaule</i>	t	o	*
<i>Carmichaelia monroi</i>	t	lf	
<i>Carmichaelia petriei</i>	s,rs,st	a	*
<i>Celmisia gracilentia</i>	t,st	c	*
<i>Cheilanthes sieberi</i>	ro	c	*
<i>Chionochloa rigida</i>	t	a	*
<i>Clematis quadibracteolata/marata</i>	rs	o	*
<i>Colobanthus brevisepalus</i>	c	c	*
<i>Convolvulus verecundus ssp. waitaha</i>	o		
<i>Coprosma cheesemani</i>	t	c	*
<i>Coprosma ciliata</i>	rs	o	*
<i>Coprosma intertexta</i>	o	u	
<i>Coprosma aff. parviflora</i>	rs	o	*
<i>Coprosma petriei</i>	st,t	c	*
<i>Coprosma propinqua</i>	s,rs	a	*
<i>Coprosma rigida</i>	s	o	
<i>Coriaria sarmentosa</i>	t	o	*
<i>Cystopteris tasmanica</i>	rs	u	*
<i>Dichelachne crinata</i>	ro	c	*
<i>Discaria toumatou</i>	s,rs,st,t	a	*
<i>Eleocharis acuta</i>	cr	lc	
<i>Epilobium insulare?</i>	r	lc	*
<i>Epilobium nummular folium</i>	rs	u	*
<i>Epilobium rostratum?</i>	c	u	*
<i>Festuca novae-zelandiae</i>	st,t	a	*
<i>Gaultheria antipoda</i>	t	o	*
<i>Gaultheria crassa</i>	t	o	*
<i>Gaultheria depressa</i>	t	f	*

Gaultheria crassa	t	o	*
Gaultheria depressa	t	f	*
Geranium sessiliflorum	c,st	c	*
Gnaphalium audax	k	o	*
Hebe pimeleoides	o	u	
Hebe salicifolia	rs	u	*
Helichrysum lanceolatum	ro	u	*
Helichrysum filicaule	st	o	
Helichrysum intermedium	ro	c	*
Hydrocotyle moschata	o	u	
Hydrocotyle salcata	cr	lc	
Hypolepis millefolium	rs	o	*
Kunzea ericoides	k	a	*
Lagenifera cuneata	st	o	*
Leptinella pusilla?	st	lc	
Leucopogon colensoi	st,t	o	*
Leucopogon fraseri	st,t,c	a	*
Luzula banksiana var. migrata	ro	c	*
Luzula rufa	t,st	o	*
Melicytus aff. alpinus	s,ro	o	*
Montia fontana	r	lc	*
Muehlenbeckia australis	k	lc	
Muehlenbeckia axillaris	c	o	*
Muehlenbeckia complexa	s,rs	f	*
Myriophyllum pedunculatum	cr	lc	
Neopaxia australascia	c	u	*
Olearia cymbofolia	s	o	*
Olearia odorata	rs	o	*
Ophiglossum coriaceum	t	o	*
Oreomyrrhis ramosa	rs	c	*
Oreomyrrhis rigida	c	lo	*
Oxalis exilis	rs	c	*
Ozothamnus vauvilliersii	s,t	o	*
Pimelea oreophila	st,t	c	*
Pimelea traversii	ro	o	*
Poa cita	r	o	*
Poa colensoi	st,t	f	*
Poa lindsayi	st	o	
Poa maniototo	c	c	*
Polystichum richardii	k	u	*
Polystichum vestitum	rs	o	*
Pteridium esculentum	o	f	*
Ranunculus gracilipes	t	c	*
Raoulia australis	c	f	*
Raoulia beauverdii	c	f	*
Raoulia parkii	c,st	c	*
Raoulia subsericea	t,st	c	*
Rubus schmidelioides	s,rs	c	*
Rytidosperma unarede	ro	o	*
Scleranthus uniflorus	st	o	

Senecio quadridentatus	O	O	
Stellaria gracilentia	c,ro	C	*
Thelymitra longifolia	ro,st	O	*
Urtica aspera?	rs	O	*
Vittadinia australis	c	u	

Habitat

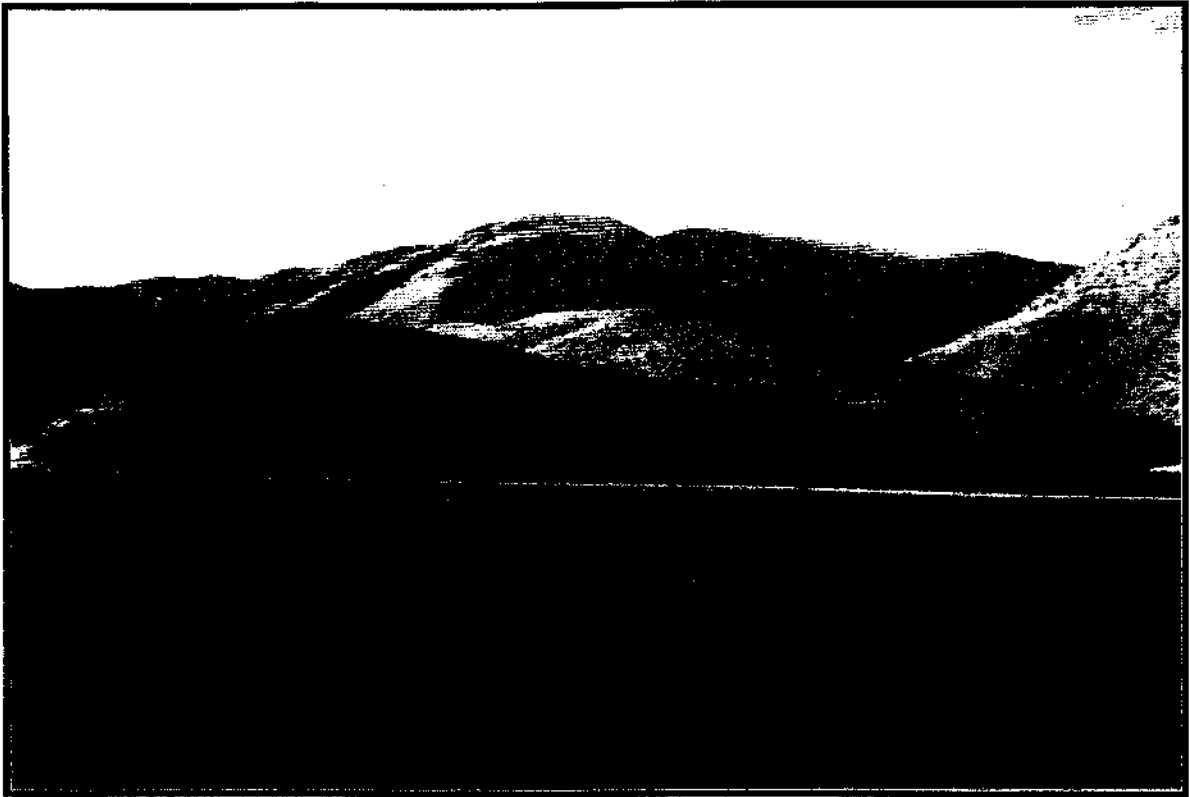
St	short tussockland
T	snow tussockland
S	shrubland
Rs	riparian shrubland
K	kanuka shrubland
R	Riparian grassland/wetland
Ro	rock outcrop
C	cushionfield and sunny depleted slopes
Cr	Clutha River/Mata-au bank
O	Other habitat

Abundance

A	abundant
F	frequent
C	common
O	occasional
U	uncommon
L	local

* found within identified area

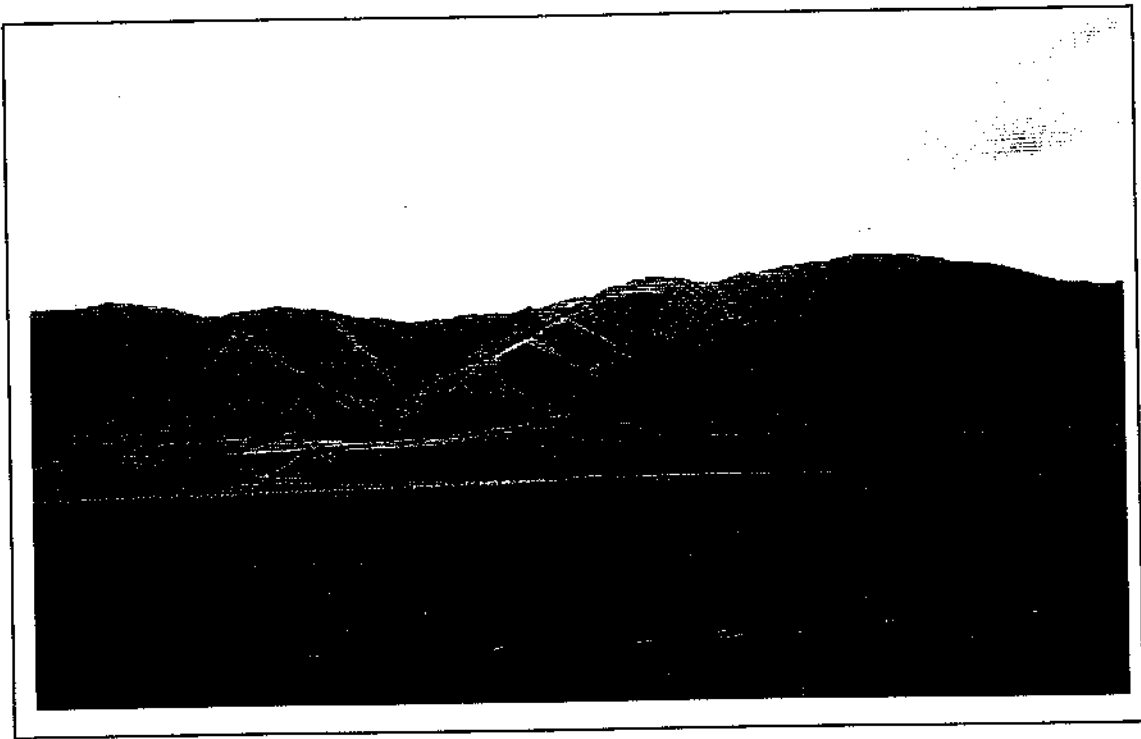
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**Native Broom (*Carmichaelia petriei*)
Area - Centre.**



West Coast Gully Catchment



Sandy Point Flats viewing Hill

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Panorama looking across the Grandview Range towards Lake Wanaka

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