

## **Crown Pastoral Land Tenure Review**

**Lease name : West Wanaka  
Station**

**Lease number : PO 203**

### **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

**Copied October 2002**

**CONSERVATION RESOURCES REPORT**  
**FOR THE COMMISSIONER OF CROWN LANDS**  
**WEST WANAKA PASTORAL LEASE**

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## PART 1

### 1.1 INTRODUCTION

The lessee of West Wanaka pastoral lease has applied to the Commissioner of Crown Lands for a review of the property's pastoral lease tenure.

West Wanaka pastoral lease (7163 hectares) is located 23 km north-west of Wanaka township. The property lies on the lower flanks of the Buchanan Mountains (local name for mountains containing Buchanan Peaks and Mt Alta) and is bounded by Lake Wanaka on the east and the Matukituki River to the south and west. The current boundaries date back to 1966 when 11,372 ha of land above 1000 m.a.s.l was surrendered under a Catchment Board run plan. This plan involved the erection of 40 km of retirement fencing. Surrendered land now comprises the West Wanaka Conservation Area. The extent of the property is depicted on Map 1 (appendix).

A small 13.78 ha freehold block at Colquhouns flat is farmed with the pastoral lease. The lessees also have grazing licences over the following three areas of conservation stewardship land:

**One:** LS 177 - 1.55 ha adjacent to the lower Matukituki River on the south side of the suspension bridge held on a 5 year term from 1st July 1996).

**Two:** PG6 - 590 ha on the south side of the Minaret Burn above the pastoral lease boundary. This licence is for 5 years from 1 July 1993 and is currently running on whilst a decision is being made regarding its future renewal.

**Three:** PG7 - 135 ha in the mid reaches of the Rumbling Burn. This licence is for 5 years from 1 July 1993 and is currently running on whilst a decision is being made regarding its future renewal.

Forests lying to the north and west of the upper Matukituki flats which adjoin Mount Aspiring National Park are protected as conservation stewardship land.

The property is in the Lakes Ecological Region and the Wanaka Ecological District. No Protected Natural Areas survey of the ecological district has been carried out. In 1985 when several pastoral lease renewals were conducted in the area, an informal document titled "Known Biological Values of the Wanaka Ecological District" was compiled by the Department of Lands and Survey. This report did not cover West Wanaka pastoral lease. In February 1997 a variety of specialists from the Department of Conservation have visited this property as part of this tenure review exercise.

## PART 2

## CONSERVATION RESOURCE DESCRIPTION AND ASSESSMENT OF SIGNIFICANCE

2.1. *LANDSCAPE*WEST WANAKA LANDSCAPE REPORTIntroduction

West Wanaka is a very large, linear property on the shores of Lake Wanaka extending from the Minaret Burn to the Matukituki River Mouth and extending west up the Matukituki Valley. The Matukituki arm includes flats, wetlands and lower mountain slopes below the Buchanan Peaks.

The property as a whole contains significant and important landscape values.

Background - Wanaka/Hawea Landscape Study

The Wanaka/Hawea Landscape Study (Department of Conservation draft report) is a broad based landscape assessment of the Wanaka and Huxley Ecological Districts. The study divided the area into landscape units and determined priorities for landscape protection.

Three landscape types or units apply to the property:

1. **Lake Basin Unit (subtype West Wanaka).**  
-includes all of the lake faces from the Matukituki Mouth to the Minaret Burn.
2. **West Wanaka Unit.**  
-includes only a small area of the Minaret Burn north faces.
3. **Matukituki Unit.**  
-All of the flats and south facing mountain slopes on the true left of the river.

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The landscape study identified a large area covering the Matukituki Valley and West Wanaka as outstanding (a heritage landscape of national significance). This category covers the entire property, apart from the north faces of the Minaret Burn. The Tenure Review inspection has allowed a more detailed analysis of the property within the context of the broader assessment.

## WEST WANAKA STATION - LANDSCAPE CHARACTER DESCRIPTION

For the three landscape units identified on West Wanaka, (see above) a landscape character description of each is given followed by a qualitative evaluation Definition of Landscape Character.

Landscape character is the description of the identifying sum of all elements and expressions that make up the landscape. These include landform, waterform, vegetation, land use and cultural features. Following the character description, a qualitative evaluation of each landscape type is given. This is a judgement about the quality of a landscape using a set of criteria.

### Definition of Criteria used to Evaluate Landscape Types

The following five attributes were used in the evaluation.

- Intactness:** The condition of the native vegetation and the degree of modification.
- Coherence:** How the landscape visually 'hangs together' - derives from characteristics including intactness, unity and compatibility. Intrusions, alterations and disruptions tend to distract from coherence.
- Distinctiveness:** The special characteristics and qualities that make it stand out (or otherwise).
- Visibility:** Determines how easily and regularly a landscape is seen.
- Significance:** Significance of the characteristics and features. If they are locally, regionally or nationally significant.

#### 1. Lake Basin

The Lake Basin unit has been further divided into sections for descriptive purposes.

##### a) Matukituki Mouth to West Wanaka homestead

From the Matukituki mouth, an ice sculptured lumpy landform characteristic of West Wanaka, Glendhu Bay area rises steeply above the West Wanaka Station road. Steep shady faces retain significant and important indigenous vegetation remnants, including an ancient matai. Elsewhere is

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scattered kanuka, bracken and pasture grass. The river flats at the Matukituki mouth are cultivated and fenced with groupings of willow and poplar.

The homestead is nestled beneath Lookout Hill set among exotic trees.

**b) Homestead to Colquhouns Flat**

This section is also dominated by a glacial lumpy landform rising up to Lookout Hill with the Buchanan Peaks behind. Smooth rounded slopes contrast with steep exposed rock faces. Remnant shrublands occur in pockets, particularly on south facing aspects. Otherwise vegetation is mainly bracken and exotic grasses. The shoreline is rocky and indented with small beaches alternating with rocky headlands.

An old lake terrace terminating at a rocky headland occurs before Colquhouns Flat. Vegetation is highly modified and is primarily grass and bracken. Kanuka occurs in isolated pockets, associated mainly with rocky headlands, and along the lake edge.

An access track along the lake front is visible from the lake. One or two wilding pine trees occur.

**c) Colquhouns Flat to Rumbling Burn**

This section comprises ice worn slopes, incised streams, fans and terraces. Native vegetation is confined to scattered remnants along the lake margin and gully remnants (notably Cox's Bush). Elsewhere bracken is dominant below approx. 1000 metres. Brown/olive green bracken is the dominant colour, in contrast to snow tussock higher up.

The Rumbling Burn delta is notable for its terrace landforms, remnant kanuka and very large boulders (which are a feature).

**d) Rumbling Burn to Minaret Burn**

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Very steep faces support diverse and intact lakeshore vegetation up to the first ridge. It represents the best remnant vegetation on the Lake Wanaka faces. A fault scarp nestled behind the ridge between the Minaret Burn and the Rumbling Burn is a feature. The high terrace is mainly short tussock, brown top and bracken. Views from the vantage point are spectacular across Lake Wanaka. A hut and stockyards are located on the terrace.

At the mouth of the Minaret Burn the shrubland ends abruptly at the intersection with a sunny spur and gives way to bracken, grass and scattered shrubs which grade into snow tussock with altitude. Scattered kanuka is notable near the mouth.



**Lake Basin - Evaluation**

	High	Mod-High	Moderate	Mod-Low	Low
<b>Intactness</b>					
<b>Coherence</b>					
<b>Distinctiveness</b>					
<b>Visibility</b>					
<b>Significance</b>					

The lake faces have a high degree of variability in terms of intactness and level of landscape coherence. The areas that have been repeatedly burnt and grazed i.e. primarily bracken tend to reduce their rating for these two factors. However, left alone these areas would vigorously regenerate into shrubland and the rating would be higher.

**2. Matukituki Landscape Type**

This landscape type is part of the larger Matukituki unit. It includes the valley floor on the true left of the Matukituki to the properties western boundary and lower mountain slopes from Lookout Hill to Round Hill.

**Landscape character description**

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From the mouth of the Matukituki to Lookout Hill, ice sculptured landform is the dominant characteristic.

North of Lookout Hill the headwaters of the Soft Burn contain a series of low terraces which support short tussock, scattered shrubland and exotic grasses.

The slopes extending along the base of the Buchanan Peaks are steep dark faces with a series of incised gullies and steep escarpments. Shrublands remain in the gullies and very steep areas. The largest gully culminates in a broad alluvial fan, which supports an extensive matagouri shrubland. Elsewhere on the lower slopes, dark green bracken is the dominant cover.

Further west, the main gullies support tongues of beech forest which form a distinctive landscape pattern. Beech alternates with broad undulating spurs of bracken, pasture and tussock. Matagouri dominated shrublands are associated with fan formations on the valley floor.

The wetlands including open water on the valley floor are significant and contribute to landscape character and diversity. At the western end of the property, the flats are a mix of matagouri and exotic grasses, with *Juncus* and *Carex* spp. common in wetter areas. Generally the level of modification on the flats decreases from east to west.

A series of hay barns are located on cultivated land at the eastern end of the valley and are visible from many parts of the valley.

### **Matukituki Type - Evaluation**

This landscape type forms part of the larger Matukituki unit - a large scale glaciated valley system. This type also displays a high degree of variability in terms of the level of intactness. Shrubland remnants, beech, tussock grassland and wetland are all quite extensive and contribute to a diverse and rich landscape mosaic. Within this type there are also highly modified areas such as the lower valley floor. In visual terms there is a harmonious relationship between farming patterns and natural landscape.

	High	Mod-High	Moderate	Mod-Low	Low
<b>Intactness</b>					
<b>Coherence</b>					
<b>Distinctiveness</b>					
<b>Visibility</b>					
<b>Significance</b>					

Considered as a whole (in the context of the valley system) there is a moderately high level of landscape coherence despite the degree of vegetation modification.

### **3. West Wanaka Type**

This type refers to the north faces of the Minaret Burn and a small area of flat within the lease. The north faces form a uniform slope from the valley floor to the upper lease boundary. Vegetation is predominately exotic grasses grading into tussock with altitude. Small patterns of beech remnants occur.

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**West Wanaka Type - Evaluation**

	High	Mod-High	Moderate	Mod-Low	Low
<b>Intactness</b>					
<b>Coherence</b>					
<b>Distinctiveness</b>					
<b>Visibility</b>					
<b>Significance</b>					

**Significance of Landscape**

The property as a whole has high landscape values. Contributing factors to the high value include:

- impressive ice-worn glacial landform which is a signature of the West Wanaka area.
- enclosing lower mountain slopes of the Matukituki valley landscape and lake face slopes forming part of a spectacular glaciated landscape
- significant areas of remnant vegetation (forests, shrubland, tussock and wetland).
- high visibility of much of the pastoral lease as a result of:
  - a) its location on the shores of Lake Wanaka (i.e. forms a backdrop view across the lake from many points, including Mount Aspiring Road and Glendhu Bay area).
  - b) its location within the Matukituki Valley (a highly used and easily accessed backcountry valley).

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## 2.2 *LANDFORMS AND GEOLOGY*

### (a) **Topography and Landforms**

The lease lies on the southern, western and eastern flanks of the Buchanan Mountains and lies between 280 and 1300 m.a.s.l.

The lease can be divided into six broad topographic components.

#### 1. **The Matukituki Flats**

These flats are mostly formed from material deposited by the Matukituki River. A series of small fans have formed where streams enter the Matukituki Valley from the east. These elevated fans are comprised of coarser material than the main river flats and are consequently better drained.

Prior to farm development most of the Matukituki Flats were an extensive wetland. Although most of these have now been drained, the remaining valley floor wetlands are some of the largest in the Lakes Ecological Region.

Although not part of the pastoral lease, the adjoining braided river bed of the Matukituki is an integral part of the valley ecosystem.

#### 2. **West facing lower flanks of the Buchanan Mountains above the Matukituki valley: - Round Hill Spur to the Soft Burn.**

This topographic unit comprises moderately sloping faces incised by a series of catchments which drain the Buchanan Mountains. At the southern end of this zone, the lower faces are steep and bluffy with areas of boulder fields.

#### 3. **Lookout Hill and undulating country in vicinity of West Wanaka homestead.**

This topographic zone has been shaped by Pleistocene glaciers which formed a series of roche moutonnees. Massive blocks of exposed bedrock facing into the direction of ice flow have been rounded and smoothed, whilst the lee sides which have been subject to a plucking out of joint blocks are characterised by steep bluffs and rough bouldery terrain.

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4. **West facing lower flanks of the Buchanan Mountains above the shores of Lake Wanaka.**

These moderately steep, relatively smooth faces are intersected by a number of catchments of varying size. The Rumbling and Minaret Burns are substantial catchments with deep valleys entering Lake Wanaka. Faces between these two catchments are steep and bluff. The lake margin comprises pebble beaches between Colquhouns Flat and the mouth of the Rumbling Burn. Colquhouns Flat is covered in lake gravels. Further evidence that the level of Lake Wanaka has fallen, is a series of raised beaches to the north of Colquhouns Flat.

5 **The Minaret Burn.**

The lower reaches of the Minaret Burn are entrenched into a narrow deeply incised gorge. The upper reaches comprise a series of flats, many of which are subject to periodic flooding. The faces are of moderate steepness and are dissected by numerous small streams.

(b) **Geology**

The underlying bedrock is strongly deformed defoliated quartzo feldspatic schist of chlorite subzone 4. Valleys have been over-ridden by glaciers to an altitude of 1370 m.a.s.l. Fan talus occurs on the valley floors, with slumps and partly collapsed solifluction slopes apparent in some areas. The Matukituki Valley is in-filled with a substantial depth of alluvial material derived from the glaciated mountains of Mount Aspiring National Park.

(c) **Soils**

Soils are predominantly upland and high country Yellow Brown Earths. Dunstan Steepland soils formed from schist slope deposits, bedrock and loess cover approximately 80% of the property. Less fertile soils on wetter slopes up the Matukituki which have been subject to more leaching are described Moonlight Steepland Soils. Recent soils (Matukituki) on the Matukituki River flats are formed from schist alluvium. Silt and clay layers impede natural drainage in many areas, which in combination with a high water table associated with the nearby Matukituki River, has led to the formation of a series of large wetlands.

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#### (d) Hydrology

The hydrology of the Matukituki riparian wetlands deserves specific mention as these comprise the largest wetlands in the Lakes Ecological Region. Riparian wetlands are ecosystems in which soils and soil moisture are influenced by the adjacent stream or river and are unique because of their linear form along rivers and streams.

Continuous interactions occur between riparian, aquatic and upland terrestrial systems through exchanges of energy, nutrients and species. Biotic diversity is particularly high along the boundaries of this ecosystem, as there is an overlap between species adapted to wetter and drier sites. If moisture gradients are shifted through artificial disturbance the ecological complexity is easily disrupted.

The Matukituki Valley wetlands owe their presence to 2 factors:

- 1: Near the current dynamic braided river bed, a series of channels have been cut off by valley floor deposition. Some of these channels are now effectively ox-bow lakes and are supplied with water from two sources (a) when the Matukituki is in flood, river flow enters these lagoons supplying them with fresh water and sediment. (b) Water flows and seeps into them from the western flanks of the Buchanan Mountains from a series of small catchments.
- 2: The balance of the wetlands have formed on material deposited by the Matukituki River which now lies considerably above the present level of the river. Fine deposits of silts and clays form relatively impermeable horizons, resulting in perched water tables and areas of standing water. This material is sourced from erosion of schist bedrock by glacial and to a lesser extent fluvial processes in the head waters of the Matukituki River. Water is supplied to these areas from streams entering the valley from east and from direct precipitation.

#### Significance of Landforms and Geology

The glacial features of the lower Matukituki Valley are of immense scientific interest, in that they provide evidence of periodic climatic fluctuations during the Quaternary. The braided river bed of the Matukituki Valley and adjoining wetlands are special physical features which contribute to the areas unique physical character.

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### 2.3 CLIMATE

The property is in a transition zone between the wet mountains of the Main Divide and the rain shadow to the east. Most rainfall is from the westerly quarter. Rainfall increases with proximity to the Main Divide. Precipitation also increases with altitude. Rainfall at the upper end of the pastoral lease in the Matukituki Valley is approximately 1800mm whilst at the homestead it is only 1000mm. The homestead enjoys elements of a Central Otago climate whilst the more northern areas are subject to a mountain climate. The rainfall gradient and varying aspects on the property are reflected in the vegetation and soils.

Lake Wanaka has a moderating effect on the climate on the eastern portion of the property.

### 2.4 VEGETATION

Vegetation in the five topographic units previously outlined is described below, with particular emphasis on areas which retain a native cover.

#### 1. The Matukituki Flats

##### (a) Naturally Free draining Areas

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Most free draining soils on these flats have been developed into pasture; the only exception being on bouldery, frequently disturbed sites where fans enter the flats. These areas retain some components of shrubland vegetation which was likely to have been widespread on drier parts of the flats and lower faces prior to Polynesian and pastoral fires. Of particular interest are:

1. An area of matagouri covering approximately 15 hectares at the mouth of a Creek below Buchanan Peaks (west of the Soft Burn). Matagouri (*Discaria toumatou*), although widespread on hillsides which have been subject to AOSTD, is not common in its natural habitat of fertile recent soils.
2. The small deciduous tree, *Olearia hectorii*, has its most significant population nation-wide in the Matukituki Valley. West Wanaka Station contains much of this population on alluvial fans and in cliff-base shrublands. Individual trees with a diameter of up to 1 metre are present. The largest trees are growing amongst exotic pasture. Significant areas of *O. hectorii* are depicted on Map 2a (appended).

Stands below Tongue Spur and at the base of a small catchment entering the Matukituki Valley ~ 3km downstream from Tongue Spur contain the most impressive groves in terms of size and abundance. The narrower leaved *O. lineata* is also common in some of these areas.

*O. hectorii* is a category A threatened species (Molloy and Davis 1994). No juvenile plants were noted on these fans. This is a feature noted in most locations where this species occurs. Rogers (1996) observed that only 3 of 24 surviving populations are considered to have good chances of unaided regeneration. "Reservation proposals for *O. hectorii* need to consider the need for spatially large areas to span the spatial and temporal patterns of landscape disturbance that enable the establishment of new populations."



Photo 1. *Olearia hectorii*. Matukituki Flats

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**(b) Wetlands**

From a conservation perspective past land use decisions have not recognised the integrated nature of the wetlands and river bed system in the Matukituki Valley. The majority of wetlands have been drained and converted to pasture. Remaining wetlands tend to be the core areas of the original wetland ecosystem.

Three wetland remnants retain much of their natural character. These areas (depicted on Map 2a - appended) represent the largest complex of lowland wetlands in the Lakes Ecological Region.

**Area 1. Broad Spur - Tongue Spur Wetland.** This is a small (~15 ha) wetland pond/swamp system between Broad Spur and Tongue Spur, the majority of which is fenced to exclude stock (with the exception of the area immediately under the toe slopes of the Buchanan Peaks). A ditch at the base of the hill parallel to the farm track diverts some water away from this wetland.

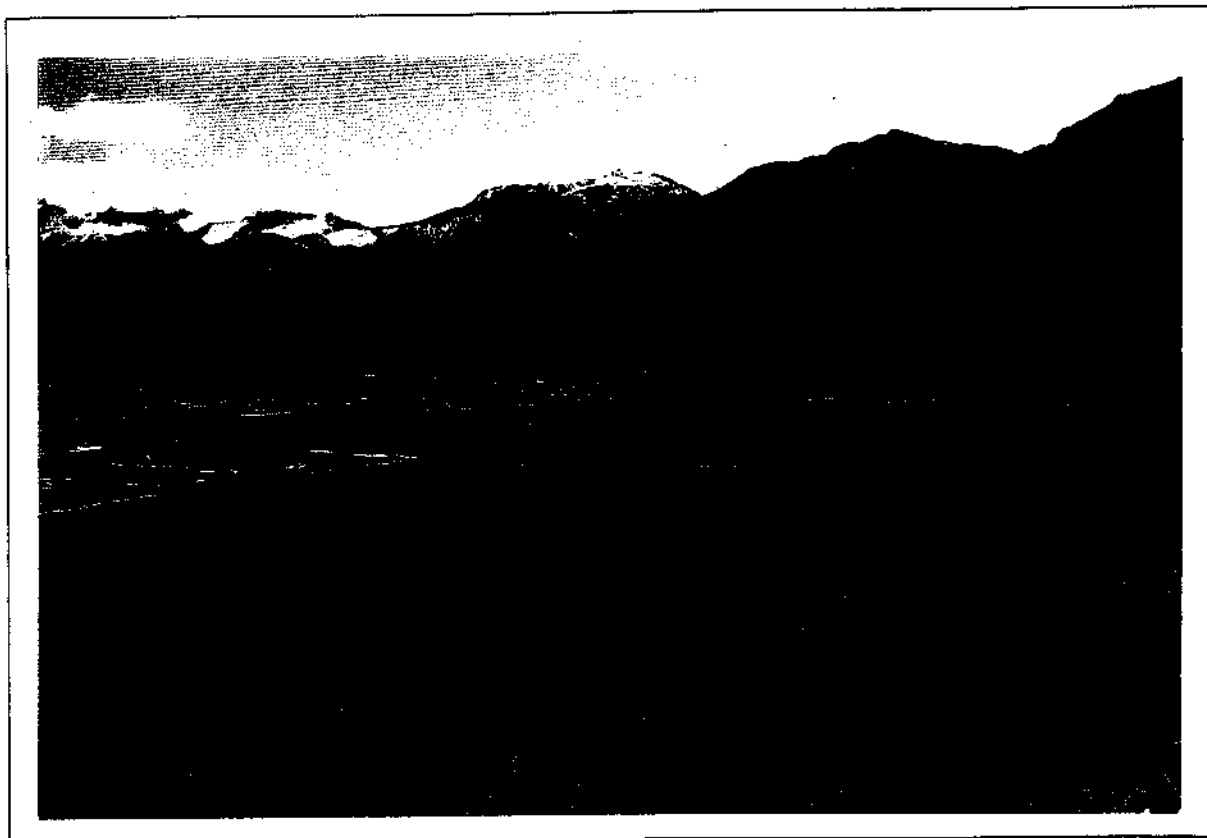
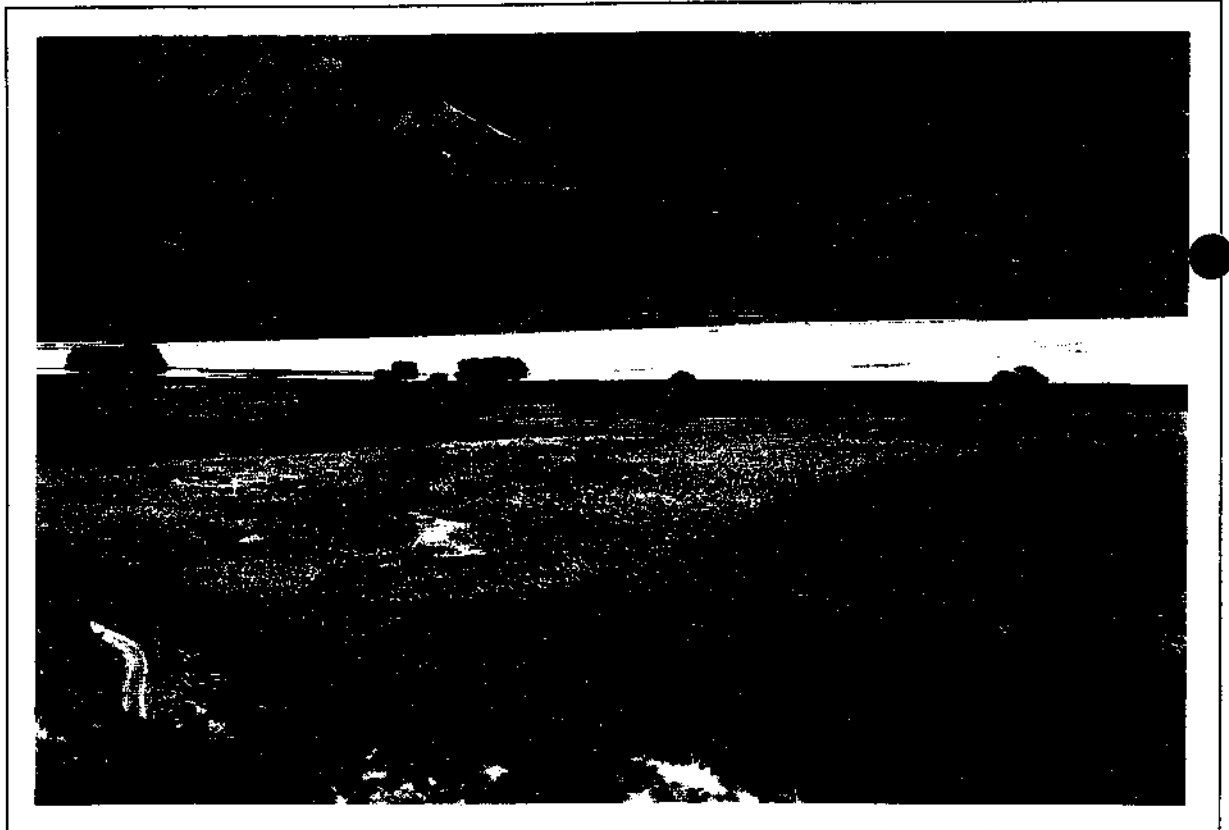


Photo 2. Wetland Area on Matukituki flats between Tongue Spur and Broad Spur

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**Area 2. Narrow Spur Wetland.** This area is a substantial area comprising approximately 60 ha lying on the Matukituki Flats to the south (downstream) of Narrow Spur. The extent of the area is apparent in Photo 3.

As with Area 1, drainage ditches have been constructed to lower the water table and to turn inflows more directly to the Matukituki River. Inflow from toe slopes is now collected by drainage ditches.



**Photo 3. Wetland Area on Matukituki flats located immediately south of Narrow Spur**

**Area 3 - West Wanaka Lagoons.** This area represents the single largest remaining lowland wetland in the Lakes Ecological Region comprising approximately 230 ha. See Photo 4.

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**Photo 4. West Wanaka Lagoons**

The three wetlands support similar botanical values and retain much of their natural character.

Portions of wetlands without permanent standing water contain many native woody species including mingimingi (*Coprosma propinqua*), *Olearia fragrantissima*, *Olearia lineata* and koromiko. These shrubs are often draped in bush lawyer (*Rubus schmidelioides*). Dominant natives at ground level are *Carex secta*, *Carex coriacea*, jointed rush (*Juncus articulatus*) *Blechnum minus*, *B. penna-marina* and spike rush (*Eleocharis acuta*). Exotic pasture plants are also widespread, especially clovers, Yorkshire fog, browntop and sweet vernal.

Raupo (*Typha orientalis*) stands are present on the margins of permanent pond areas. This species has probably spread as the water levels have been progressively lowered through drain construction. A number of crack willows (*Salix fragilis*) are present on the margins of areas with standing water.

Where the natural water edge appears to have been relatively stable, *Carex maorica*, *C. gaudichaudiana* and toe toe (*Cortaderia richardii*) form a discontinuous sward, with *Hydrocotyle sulcata*, forget-me-not (*Myosotis laxa subsp caespitosa*) and buttercup *Ranunculus glabrifolius* forming an understory and ground cover.

Water milfoil (*Myriophyllum propinquum*) and pondweed (*Potamogeton cheesemani*) occur as aquatic plants on open water areas.

2. **West facing lower flanks of the Buchanan Mountains above the Matukituki Valley - Round Hill Spur to the Soft Burn.**

The majority of these faces are either AOSTD grasslands or a mixture of exotic grasses, herbs and bracken in various stages of regeneration. Although these areas have ability to regenerate towards predominantly native shrublands; in the overall context they are considered to be of low conservation value. Over much of the length of the retirement fence, there is clear demarcation between narrow-leaved snow tussock grasslands above and exotic sweet vernal and browntop below.

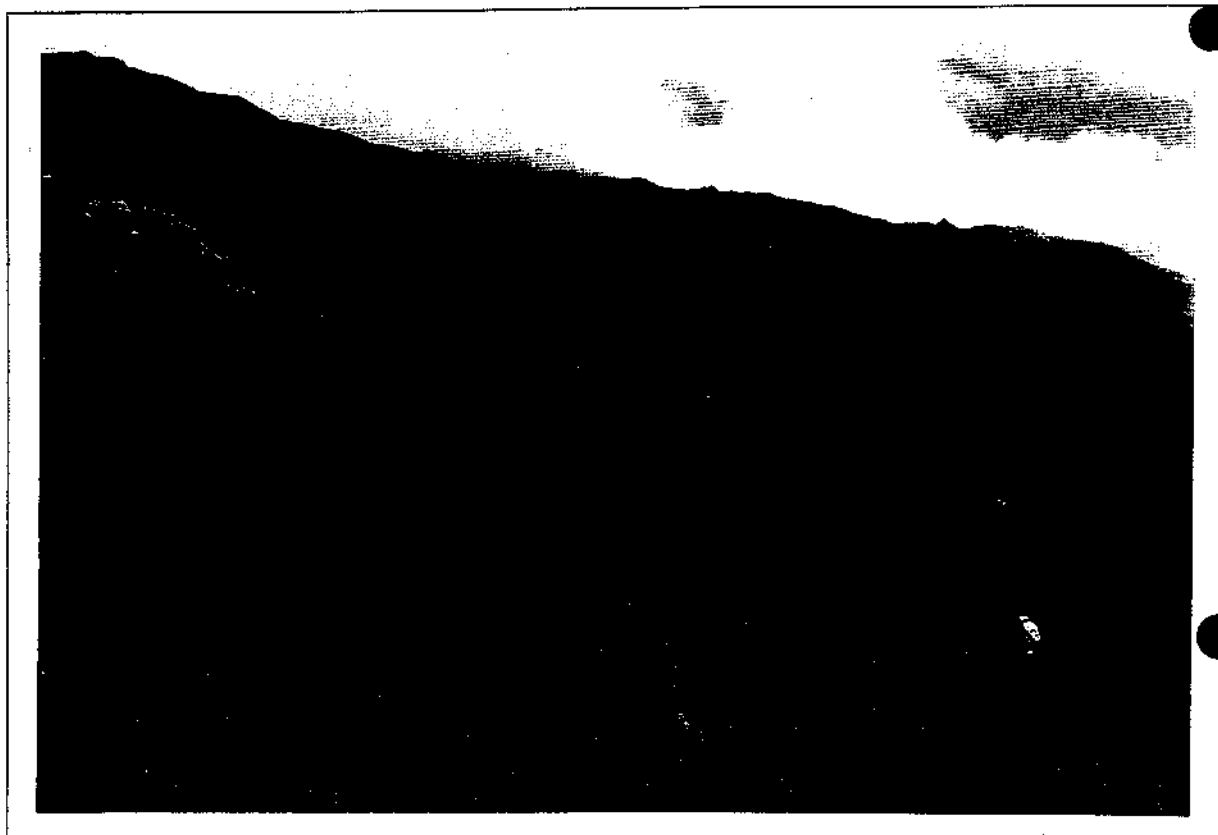


Photo 5. Retirement Fence (boundary) on Matukituki Faces above Round Hill Spur

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Several small catchments which have served as fire refugia; probably since early Polynesian times, retain patches of beech forest. Some of these areas contain charred remains of large trees indicating that they have been burnt at some stage. Beech species present include mountain (*Nothofagus solandri* var *cliffortioides*), silver (*N. menziesii*) and on well drained sites, red beech (*Nothofagus fusca*). Halls totara (*Podocarpus hallii*) is also present. Sub canopy trees and shrubs include fuchsia (*Fuchsia excorticata*), wineberry (*Aristotelia fruticosa*), broadleaf or kapuka (*Griselinia littoralis*), koromiko (*Hebe salicifolia*), mapou (*Myrsine australis*), and lancewood (*Pseudopanax crassifolius*).

A small area of pastoral lease to the north of Round Hill Spur above Trig LL which has been burnt and grazed in the past, is in an advanced stage of reversion to beech forest.

It is of note that on the margins of some bush remnants, healthy mountain and red beech seedlings were observed to be successfully competing with a ground cover of tussock hawkweed (*Hieracium lepidulum*) and bracken fern (*Pteridium esculentum*).

On Tongue Spur the faces between the retirement fence and the upper beech forest margins are not easily accessible to stock. Here, the margins of the beech forest are vigorously expanding. In addition to beech saplings; mountain ribbonwood (*Hoheria lyallii*) and broadleaf are present. Above the forest margins the area has reverted to a native grassland/shrubland comprised almost entirely of native species. In excess of 30 species were recorded, including prickly shield fern (*Polystichum vestitum*), narrow-leaved snow tussock, snowberry (*Gaultheria antipoda*), giant Spaniard (*Aciphylla scott-thomsonii*), turpentine shrub or inaka (*Dracophyllum longifolium*), *Coprosma rugosa*, *Olearia nummulariifolia* and tauhinu (*Cassinia leptophylla*).

At the southern end of these faces where the topography is rougher with low bluffs and extensive boulder fields, significant areas are vegetated by diverse shrublands, many of which contain the threatened species *O. hectorii* (including what appear to be young plants). Twenty six *O. hectorii* shrubs were counted in a series of bluffs immediately above the West Wanaka Lagoons. Other shrub species present include *O. lineata*, *O. odorata*, koromiko, broadleaf, *Aristotelia fruticosa*, lancewood, cabbage trees (*Cordyline australis*), fuchsia, kohuha (*Pittosporum tenuifolium*) and native broom (*Carmichaelia petriei*). Rocky bluffs are vegetated by kiokio fern (*Blechnum spp*) and in some protected locations mountain anise (*Gingidia montana*).

The full extent of this area is depicted in photo 6.

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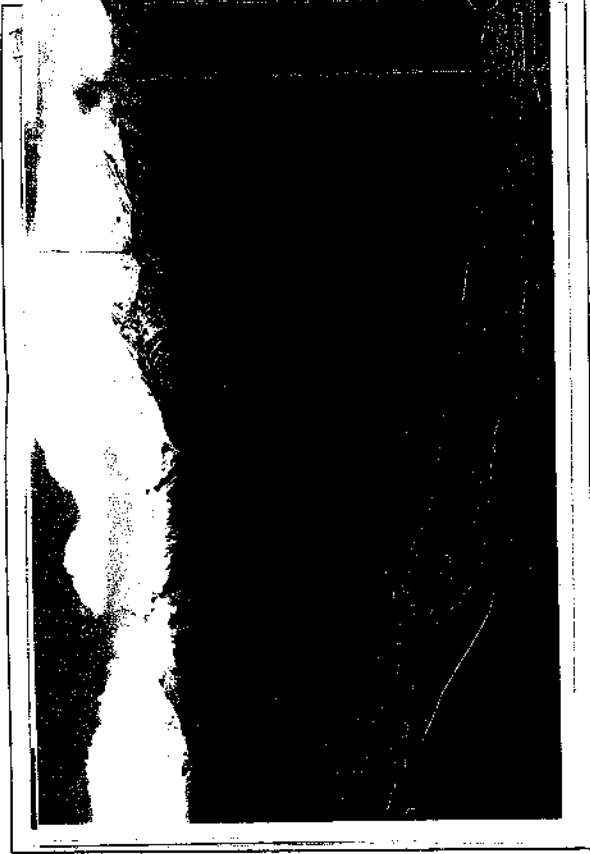


Photo 6. Lower flanks of the Buchanan Mountains above the Matukituki Valley - Round Hill Spur to the Soft Burn.

3. Lookout Hill and Undulating country in vicinity of West Wanaka homestead.

The naturalness of vegetation on this ice worn topography is closely related to landform. Small areas of flats have been developed into exotic pasture. Moderate slopes support a mixture of bracken and exotic grasses and are subject to periodic burning and AOSTD.

Several steep bluffly and areas and rough boulder fields have not been burnt for some time and have reverted towards diverse native shrublands. Two areas are worthy of specific mention:

- An area on the southern flanks of Lookout Hill which has regenerated into a diverse mixed shrubland containing many of the species described in the previous section and described as growing as a substory in beech forest remnants. Towards the summit of Lookout Hill, shrublands grade into a mixed narrow leaved (*Chionochloa rigida*), hard tussock (*Festuca novae-zelandiae*) grassland/shrubland.

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Matukituki Bridge shrubland/Forest Remnant. This area occupies steep faces and bluffs on the northern side of the Matukituki Bridge (road into homestead) and contains important botanical values. In addition to species described as being present in shrublands elsewhere on the property, the area supports 4 species of special conservation interest: (1) Two matai trees (one of 2 records in the Lakes Ecological Region). (2). *Arthropodium candidum*, a native lily described as being scattered but seldom common. (3). *Olearia hectorii* (a category A threatened species) and (4) *O. fragrantissima* (a category B threatened species - Molloy and Davis 1994). Mature mountain beech trees are present near the margins of the Matukituki River.

4. **East facing lower flanks of the Buchanan Mountains above the shores of Lake Wanaka.**

Large areas of these faces have been developed into exotic pasture. At lower altitudes there is a strong tendency towards reversion to bracken fern. However several sheltered areas retain native shrublands and forest or are in advanced stages of regeneration.

Significant areas which retain their natural character and botanical composition are:

(a) **Lake margins:** Approximately 3km of lake margins of varying width between the mouth of the Matukituki River and the mouth of the Rumbling Burn retain a mix of native species including southern rata (*Merosideros umbellata*), kowhai (*Sophora microphylla*), Halls totara, koromiko, cabbage trees, kanuka (*Kunzea ericoides*), manuka (*Leptospermum scoparium*), lancewood, broadleaf, mountain akeake (*Olearia avicenniifolia*), tree daisy (*O. arborescens*) and *O. odorata* growing at its western limit.

(b) **Cox Bush** (which comprises a catchment and adjacent faces lying to the north of Station Creek), supports approximately 200 hectares of native shrublands/regenerating forest. Surrounding bracken fern also contains a major component of native woody species. Species present include kanuka (up to 40cm dbh) broadleaf, marble leaf or putaputaweta (*Carpodetus serratus*), cabbage trees, *Coprosma parviflora*, turpentine scrub, mountain ribbonwood, *Olearia bullata* and silver beech in the depth of a gully.

Shrublands and bracken peter out at approximately 1000 m.a.s.l and merge into a narrow band of semi-natural grassland containing some remnant narrow-leaved snow tussock, hard tussock, blue tussock (*Poa colensoi*) and introduced grasses dominated by browntop (*Agrostis capillaris*) and sweet vernal (*Anthoxanthum odoratum*). Above the retirement fence at ~ 1000 m.a.s.l grasslands are dominated by narrow-leaved snow tussock.



**Photo 7. Kanuka Stand - Cox Bush**

**(c) Lake Faces between Rumbling Burn and Minaret Burn**

Steep faces below a corridor of developed exotic grassland contain one of the most important shrubland/forest remnants in the Lakes Ecological Region. Many species are present which are normally associated with high rainfall areas lying close to the Main Divide. The presence of large podocarps growing close to the shores of Lake Wanaka provides some insight into the character of the area prior to an increase in the frequency of fire with the arrival of Polynesians.

Of greatest importance is a grove of 6 mature kahikatea (*Dacrycarpus dacridoides*) trees growing in a damp gully, one of only two records of this species in the Lakes Ecological Region (see photo 7).

Also present is a single large matai tree (*Prumnopitys spicata*). Numerous seedlings and small saplings of both species are present. Other tree and shrub species growing in this substantial forest remnant include Halls totara, tree daisy, mountain akeake, broad leaf, koromiko, kowhai (up to 40cm dbh), rata, kamahi (*Carpodetus serratus*), lancewood fuchsia and mountain ribbonwood or houhere. The northern and southern peripheries of this area have been subject to more recent burning. Although kanuka and bracken are currently dominant, in the absence of fire the diverse range of native shrubs also present are likely to rapidly dominate.



The upper reaches of these faces are in an advanced stage of regeneration towards a mixed mountain/silver beech, kanuka, manuka, inaka shrubland/forest.



**Photo 7. Podocarp forest containing Kahikatea & Matai - Lake Faces Below Minaret Burn**

**5 The Minaret Burn.**

The faces in the Minaret Burn have been modified through extensive burning and grazing and are now vegetated by exotic pasture grasses or bracken. Native hard and blue tussock commonly form part of the grass sward.

Small disjunct patches of native shrub are scattered throughout small gullies and on the margins of the Minaret Burn. Common species include native broom (*Carmichaelia petriei*), mingimingi, *Coprosma rugosa*, koromiko, bush lawyer and prickly shield fern.

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At the Minaret Hut on the pastoral lease boundary a number of ponderosa pines are present including young trees. These trees represent a threat in terms of potential spread into an area, including conservation lands, otherwise devoid of exotic trees (including conservation lands). The trees are located immediately on the boundary of the West Wanaka Conservation Area.

### Significance of Vegetation

Much of the property has been heavily modified through burning, AOSTD, wetland drainage and cultivation; however a significant portion retains its natural character. Some areas exert a strong tendency to revert towards an indigenous state and although having being burnt and grazed in the past, are considered to be of high conservation value. The presence of upwards of 80 *Olearia hectorii* trees (a category A threatened species), *O. Fragrantissima* (a category B threatened species), matai, kahikatea and large wetlands is particularly important from a conservation perspective.

## 2.5 FAUNA

### (a) Invertebrate Values

The lease comprises a great diversity of habitats. Invertebrate species sampled during this survey are indicative of a range of integrated ecosystems largely comprised of native flora and fauna.

#### Tussocklands and Sub-alpine Shrublands

Most noticeable insects in these environments are a variety of day flying and vividly coloured moths. These include *Paranotoreas brephosata*, *Heliothela atra*, *Asaphodes clarata* and *Dasyuris anceps*. The copper butterfly *Lycaena salustius* and tussock butterfly *Argyrophenga antipodum* are also widespread. Three species of kikihi (cicada) (*Kikiha* n. sp. B. Patrick pers. Comm., *Maoricicada oromelaena* and *M. campbelli*) were observed. The presence of a suite of plant sucking bugs (e.g. *Rhypodes myersi*, *R. chinai*, *Oncacontias vittatus* and *Melanacanthus margineguttatus*) reflects the diversity of native vegetation and host specific functional associations.

A diverse array of ground dwelling invertebrates is present, including two detritus feeding beetles (*Zeudelium* species), grasshoppers (*Phaulacridium marginale*, *Alpinacris tumidicaudum*) and omnivorous ground weta (*Hemiandrus/Zealandosandrus* species). A primitive ant species *Ambylopone saundersi*, only rarely noted in the South Island was found. A host of predators including four carabid beetle species and New Zealand's largest spider hunting wasp *Priocnemus monachus* inhabit this sub-alpine zone.

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In summary, the insect community in this zone contains elements that are widespread in more natural habitats in western Otago. Its diverse assemblage is indicative of disturbance and a mosaic of different habitats present.

#### **Beech and mixed podocarp forest remnants**

In mountain, silver and red beech forest remnants, moth species are well represented where litter layers are deep and a variety of understory shrubs are present. The moth *Apoctena pictoriana* feeds on beech leaves. A variety of wood feeding beetles and flies dependant on such forest were observed, which collectively play an important role in decomposition and nutrient recycling. Invertebrates dependant on podocarp tree species were not noted. Invertebrates in these forests play an important role in continuing regeneration.

#### **Shrublands of kanuka, broad-leaved and coriaceous divaricating shrubs**

A number of generalist insects were noted in this habitat, including the moth *Ctenopseutis obliquana*, bugs in the family Lygaeidae, kikihi (*Kikiha rosea*), manuka beetle (*Pyronota* species) and two native bee species.

*Olearia hectorii* trees support a rich insect fauna which feed exclusively on their flowers, leaf litter, dead wood and thin leaves. Over 20 moth species are known to rely on this host, which is very high by New Zealand standards. The demise of *O. hectorii* over much of the South Island is reflected in the local extinction of many of these species. An examination of *O. hectorii* and *O. odorata* in the Matukituki Valley revealed nine moth species feeding on them, including one new species, not described before. This species is orange and in the genus *Stathmopoda*.

These shrubland - rock bluff areas support populations of the nationally uncommon moth species; *Austrocidaria priorata* (larvae on *Coprosma*) and *Gingidiobora subobscurata* (larvae on *Gingidia*).

#### **Wetlands and braided river beds**

The river flat and terrace wetlands of the Matukituki River are productive environments for insects due to their low elevation (305-340 metres), wetness, soils and induced fertility.

In the river itself, invertebrate fauna is adapted to living in the fast flowing waters where prey and food drift down stream.

Invertebrate life is more diverse in swamps and bogs due to the presence of a stable vegetation cover. A large proportion of the insect biomass observed were katydids, flies and plant sucking bugs. The insect fauna here reflects the elevation, wetland vegetation and presence of grasses. Damsel flies *Xanthecnemis zealandicus*, Craneflies (three species, Tipulidae), are wetland species. Lowland grassland species include native and introduced bees, crickets, katydids, and an array of hoverflies, moths and bugs. Bugs observed include *Nabis maoricus*, *Rhyodes myersi*, *Stenotus norvegicus*, *S. binotatus*, *Chinamiris* (two species) and plant hoppers (Fulgoroidea - three species).

The diverse assemblage of insect life depends on the maintenance of a relatively stable hydrologic regime. The wetland invertebrate fauna present in the three separately described wetlands indicates that these areas are functioning as relatively natural ecosystems.

#### Lake and stream margins

Much of the property borders Lake Wanaka, the Matukituki River and numerous smaller waterways. Such areas are important for biotic exchange, and in their natural state, support a high level of biological diversity.

Sphecid wasps and native bees nest in sand margins. Where litter is present, black scaldid bugs, predatory native and introduced wolf spiders are common. Less common are the native predatory beetles *Mecyclothorax rotundicollis* and *Actenonyx bembidioides* (second only Otago record).

Two aquatic insects - the midge *Chironomus zealandicus* and caddis *Oeconesus maori* are common in marginal vegetation. These insects are an important food source for avian and insect predators. A variety of caddis and stoners which emerge from streams to mate and disperse, were observed. Particularly common are the stoners *Zealandobius truncus* and *Zealandoperla decorata*. The stoners *Zealandoperla denticulata* and *Spaniocerca longicauda* are confined to bush streams. Streams in less disturbed habitats support the caddis *Philorheithrus lacustris* and *Zelolessica cheira*. A Hydrophilid beetle is associated with koromiko flowers in the riparian zone.

*Raoulia tenuicaulis* cushion plants which colonise gravels deposited during flood events in the Matukituki River, are home to many insects including the bugs *Nysius huttoni* and *Rhyodes chinai*.

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### Significance of Invertebrates

This area has a long history of natural and human induced habitat disturbance. The resulting array of habitats has been colonised by a diverse range of invertebrates. Although in general species present are representative of West Otago, diversity in relation to land area is high. Some communities which have borne the brunt of more recent disturbance associated with the arrival of pastoralism, are now vulnerable to continued farming activities and further development. In particular, these are lowland stream and lake margins, wetlands and the fragmented *O. hectorii* population. The shrubland - rock bluff systems are a significant habitat for native invertebrates where hosts such as *Gingidia montana*, *O. odorata* and *O. Hectorii* support uncommon insect species including moths which are important components of these ecosystems.

### (b) Vertebrate Values

#### Avi Fauna:

A diverse array of bird life reflects the wide range of habitats present on the property.

Birds observed in various habitats during the tenure review survey or which have been recorded during the recent past are listed below according to habitat.

#### Open Mountain Slopes and High Valleys.

New Zealand Falcon (Minaret Burn), Kea. Both species are category B threatened species.

#### Bush and shrublands:

Bell birds, grey warblers, New Zealand pigeon (kereru), red crowned parakeet (kakariki), tuis, fan tails and South Island tom tits. The kereru is a category B threatened species. *R. H. H. H.*

#### Braided River System on margin of pastoral lease and adjacent wetlands (within pastoral lease):

In 1982 the area was surveyed by the Wildlife Service and the West Wanaka lagoons were ranked as a wildlife habitat of moderate to high value.

The river and swamp habitats of the Matukituki Valley comprise components of a single wetland system which supports a number of specialised and generalist wetland birds.

The braided river bed provides feeding and roosting habitat for wading birds. Wading birds present include wrybill, South Island pied oystercatcher and banded dotterel. This habitat is also utilised for roosting and feeding by a range of waterfowl including the introduced mallard, Canada goose, black

swan, NZ shoveller, crested grebe, paradise shelduck, pied stilt and black shag. These species are dependent on adjacent ponds and swamps for feeding, moulting and nesting purposes.

A third group of birds comprising the South Island fernbird, marsh, Australasian bittern and spotless crane are totally dependent on the swamp and ponds. These secretive swamp birds rely entirely on the dense matted vegetation of bogs and swamps for all their habitat requirements.

NZ scaup have been observed in the vicinity of the West Wanaka Lagoons although probably reside in nearby Lake Wanaka.

#### **Significance of Avi Fauna:**

The wetlands are home to a large number of native bird species, some of which depend on the area for moulting and breeding. In this context they can be considered to be of regional significance. Bush and shrubland remnants provide an important extension of habitat and food source for many bird species which are otherwise confined to the large forested areas in and adjoining Mount Aspiring National Park. The presence of three category B threatened species is of note.

#### **(c) Aquatic Fauna**

A comprehensive fish survey was conducted as part of the tenure review inspection. The 'National Institute of Water and Atmospheric Research' fish data base contains no records for any of the numerous creeks which flow through the property. A summary of where native fish and eels were located follows.

##### **(i) Streams flowing into Lake Wanaka**

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##### **Minaret Stream**

Map No F 39 GR 9445 2828, 8650 3450, 8745 3590 and 8535 3510.

These sites are above a gorge containing a series of waterfalls, chutes and over hanging rocks which spans 1.5 km and appears to act as a fish barrier. No fish were present.

One site below the gorge, 150 metres above the lake edge was sampled (GR9840 2415). At this location large numbers of whitebait or juvenile koaro (*Galaxias brevipinnis*) were present. Koaro is a category C fish species (third priority for conservation protection). The Common bully (*Giobiomorphus cotidianus*) also inhabits this site.

**Rumbling Burn**

Map No F 39 GR 9590 2105

At this location a small number of koaro (*Galaixias brevipinnis*) ranging from 75mm to 120mm in size were present. Low numbers of koaro were attributed to the streams unstable bed and frequent high water flows.

**Unnamed Tributary of Lake Wanaka**

Map No F 39 GR 9590 2105

This stream has been subject to regular flood damage in recent years and the bed has in filled with sand and gravel; consequently no adult fish were located. Juveniles of koaro were observed some 50 metres upstream from Lake Wanaka.

**Station Creek**

Map No F 40 GR 9600 1865

Station Creek has a stable bed and a well vegetated riparian margin. The stream supports a large population of sizeable koaro (100mm to 200mm). Fish in this size range are not common in many areas where habitat has been greatly modified. Any major disturbance could substantially reduce this population.

**Unnamed Tributary of Lake Wanaka**

Map No F 40 Grid Ref 9490 1575

One large (175mm) Koaro was found 50 metres above the lake in this small stream.

**(ii) Streams and Water Bodies Flowing into Lake Wanaka****Unnamed Tributary of Matukituki**

Map No F 40 GR 8575 1875

Contains a small population of koaro.

**Ponds And Waterways On The Matukituki Flats**

Map No F40 GR 8560 1770 &amp; 8550 1930

These wetlands offer excellent habitat to eel. Long finned eels (*Anguilla dieffenbachii*) are present in these water bodies in quite significant numbers. Brown trout are also present in the ponds.

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The Roxburgh and Clyde Dams act as barriers to young eels (elver) migrating to the Matukituki River from the ocean. The wetlands have also been subject to regular commercial eeling. It is therefore surprising that the wetland ponds continue to support a substantial eel population. It is of note that the Ngai Tahu have recently released elvers into Lake Dunstan, some of which may make their way to the Matukituki wetlands.

Long finned eels are classified as M; meaning they are of cultural importance to Maori (Molloy and Davis 1994).

### **Significance of Aquatic Fauna**

The presence of a healthy population of large koaro, a category C threatened species in Station Creek is important from a conservation perspective. In addition to their intrinsic worth, koaro are significant in the diet of other fish and shags. The substantial population of long finned eels in the West Wanaka lagoons is of conservation interest and of cultural significance to the Ngai Tahu.

### **2.6 HISTORIC VALUES**

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West Wanaka pastoral lease was surveyed for historic sites on 12 February 1997. Given the large area of the property, the survey primarily consisted of field inspections of previously recorded sites in the Central Otago file of the New Zealand Archaeological Association site recording scheme.

**Maori Occupation:** According to Anderson (1980:7) Lakes Wanaka and Hawea were customarily used by the people based on the lower Waitaki in the late historic and early historic period. In 1836 when the war party of northern Maori led by Te Puoho (Anderson 1986:17-26) passed through the area there were settlements at Makarora, the Neck (between the two lakes), at the southern end of Lake Hawea, between Roys Bay and Dublin Bay on Lake Wanaka and Neheneche where the Motutapu entered the Matukituki (although at the time of the raid Neheneche wasn't occupied). These sites were usually occupied seasonally while people gathered eels, ducks, wekas, fern root etc. During the 19th century the introduced potato was also being cultivated in some areas (ibid.:18).

**Early European History:** The first European to reach the lakes was Nathaniel Chalmers who set out to visit the interior via the Mataura valley guided by two Maori, Reko and Kaikoura (Roxburgh 1977:24-25). John T Thomson, the Provincial Surveyor, was the first European to use the Lindis Pass. In December 1857 he crossed the pass from the Waitaki valley and climbed Mt. Grandview. From the summit he was able to see from the lakes to the Cromwell Gorge (ibid.:33-34). He was quickly followed by pastoralists seeking grazing lands. The first run taken up at Wanaka was by



Robert Wilkin in 1858 who had his homestead at what is now Albert Town (ibid.28-29). The following year John Roy and H S Thomson arrived at the lake. Roy took up land around the lake up to the Matukituki and Motutapu rivers while Thomson occupied the land along the west of the lake north of the Matukituki.

Thomson acted as agent and manager for Messers Stewart and Kinross of Wellington who were the actual owners. Thomson's homestead was at the mouth of the Minaret Burn. Thomson bought the run from Stewart and Kinross in the 1870s (Angus 1981:20). By the 1882 the homestead was located on Colquhouns Flat (see fig 2a in Hamel 1993). However by the late 1880s the big sheep runs around the lake were beginning to suffer from the rabbit plague, falling wool prices, and falling production due to declining grazing because of the destruction of the native grass cover. Thomson was one of the worst affected and reputedly left West Wanaka with one horse and all his belongings on its back (Angus 1981:24-25).

West Wanaka was also the scene of the first saw milling in the area. In 1859 Stuart and Kinross contracted Hassing and Broddington to cut posts, shingles and sawn timber for their run. They began cutting on West Wanaka in 1860 but soon moved the operation to Makarora where they were soon joined by other sawyers who were responding to the demand for timber from the Dunstan gold rush (ibid.:36). In 1877 Russell, Ewing and Company started a large saw mill in the Matukituki valley at Mill Creek. Twelve men were initially employed and a permanent community arose which lasted until 1899 when Ewing shifted the operation to Makarora (ibid.:38).

**The Survey:** A total of seven sites had been reported on West Wanaka: two artefact find spots (S115/3 & S115/7) and the other five were either ovens and umu ti (S115/2,4,11,12,13). Many of the site record forms were filled out on the basis of information provided by the Scaifes (former lessees) and were never inspected by an archaeologist (in fact only one of the recorded sites seems to have been inspected by an archaeologist - S115/11). Therefore the locations given for these sites are only rough indications (i.e. S115/4&13 are probably located on the Island rather than where the grid references indicate) and only S115/11 was actually relocated.

The area of the saw mill at Mill Creek was not surveyed.

S115/11 Umu ti (metric grid reference 959 174) This is located mid way along Colquhouns Flat to the east of the farm track. The oven (an umu ti is an oven used to cook the root of young cabbage trees or ti) is about 3m wide and 0.6m deep and has a distinct raised rim. This is probably the same site as S115/2.

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About 100m to the south of the oven is a group of poplar trees and a few elderberries. The poplars appear to have been planted in distinct rows. These possibly mark the site of a former dwelling, perhaps the 1882 homestead (see above). However no other evidence of a dwelling apart from the trees was visible.

**Significance of Historic Values:** Despite locating only one site, there is no doubt that Maori occupation sites occur around the mouth of the Matukituki and elsewhere along the lake shore. All these sites (including any unrecorded ones) are protected by the 1993 Historic Places Act. Under this Act a permit is required from the Trust before a site can be modified or destroyed.

## 2.7 PUBLIC RECREATION

### 2.7.1 Physical Characteristics

West Wanaka has two important recreational features:

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(1) The property is bounded by approximately 16 km of lake shore, of which approximately one third comprises gravely beaches, some of which have a backdrop of native shrublands and forest. The fine gravely beach at Colquhouns Flat is the largest on the margin of the pastoral lease. Other beaches are located at the mouths of the Minaret Burn, Cox Bush Creek and the Rumbling Burn.

The Bay at the mouth of the Matukituki River is easily accessible from the West Wanaka Road. A private jetty facility has been rendered unusable by massive silt deposition from the Matukituki River during a major flood event in 1995. Pleasant shaded conditions are provide by willow trees and a kanuka shrubland.

(2) The other distinctive recreational feature of the property is that it forms a horse shoe shape around the West Wanaka Conservation Area, meaning that practical overland routes onto the southern section of the Buchanan Mountains traverse the property. These routes are primarily located in semi-modified pastoral lands. Some short sections contain high natural values. Routes to areas of high recreational value include the following:

(a) Two 4WD tracks give access to the shores of Lake Wanaka below the western flanks of the Buchanan Mountains. One of these tracks originates from behind the homestead and largely follows the lake shore; the other climbs into the Soft Burn from the lower Matukituki Flats and descends to Lake Wanaka, meeting the track firstly described at Cox Bush. From this point, this track climbs steeply, before traversing into the lower Minaret Burn where the track is suited to foot (and possibly mountain bike) use only. Immediately north of Cox Bush, another rough track ascends

Daniels Spur, giving access to the headwaters of the Rumbling Burn. The headwaters of both the Rumbling Burn and the Minaret Burn are within the West Wanaka Conservation Area. These areas are characterised by superb alpine scenery, with native subalpine and alpine vegetation including substantial tracts of tussock grasslands, alpine lakes impressive mountain peaks and pristine mountain rivers and streams.

(b) A well formed farm road heads up the Matukituki Valley as far as Round Hill Hut in the vicinity of Round Hill Spur. This route passes numerous *Olearia hectorii* trees and the extensive wetlands described in previous sections. From Round Hill Spur a 4WD track provides access as far as the retirement fence at 1000 m.a.s.l (pastoral lease conservation land boundary). Access to the Round Hill Spur track can be gained by crossing the Matukituki River on foot from the Wanaka Mount Aspiring Road when River levels are low. The Round Hill Spur track represents a logical foot access route towards Mt Alta and into the headwaters of the Rumbling Burn.

West Wanaka pastoral lease provides a scenic backdrop to those pursuing recreational activities in numerous locations, including boating on Lake Wanaka, skiing at Treble Cone, driving up the Wanaka Mt Aspiring Road and rock climbing on bluffs on the west side of the Matukituki River.

#### 2.7.2 Public Access

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##### (a) Marginal strips

Marginal strips are laid off on Bent Stream (upper Matukituki Flats), an unnamed stream which crosses the Matukituki Flats at Round Hill Spur, the Matukituki River, the shores of Lake Wanaka, the Rumbling and Minaret Burns. Marginal strips at the mouth of the Matukituki River do not appear to reflect the current location of river channels and islands.

##### (b) Roads

A legal formed road provides access across the Matukituki River to the vicinity of the West Wanaka homestead. From this point, a formed farm track closely follows the legal road line as far as Colquhouns Flat. Above Colquhouns Flat the track is inside or close to the lakeside marginal strip. A formed track which can be used by 2WD vehicles provides access to West Wanaka Bay north of "The Island". This route appears to lie on or close to an existing marginal strip.

##### (c) Easements

There are no access easements registered against the pastoral lease.

### 2.7.3 Activities

Activities which are known to occur within, or on the margins of West Wanaka pastoral lease include:

#### **Picnicking, Boating and Camping:**

In terms of numbers these activities are probably the most popular. During summer months the lake shore from West Wanaka Bay northwards receives heavy use by boat owners. West Wanaka Bay is easily accessible by vehicle and is used for picnicking and boat launching. The shores of Lake Wanaka in the vicinity of Colquhoun's Flat beach) receive particularly heavy use. The level of lakeshore use decreases up the lake, as much of the shore is bouldery, the lake becomes more exposed and distance from launching sites is considerable.

With permission from the lessees, various groups camp in the vicinity of West Wanaka Bay.

#### **Tramping and Climbing:**

Although the opportunities for these activities in the Buchanan Mountains are not well known, a number of people gain access through the pastoral lease; with the most commonly used routes being Mount Alta via Round Hill Spur and the Minaret Burn via the main farm track up the Lake. Mount Alta is occasionally climbed via the Rumbling Burn from the lakeside 4WD track.

#### **Fishing:**

The shores of Lake Wanaka and the Matukituki River are regularly frequented by recreational fishers.

#### **Hunting:**

For many years hunters have gained access to the West Wanaka Conservation area via West Wanaka Pastoral Lease with permission from the lessees. Areas of regular use include Round Hill Spur, the Rumbling and Minaret Burns. In the past, a commercial safari hunter used to utilise the Minaret Burn. The West Wanaka Lagoons are a popular game bird hunting area (subject to permission from the lessees).

#### **Skiing:**

The Buchanan Peaks area is regularly used for heliskiing by local operators. Independent parties occasionally use the area for ski-mountaineering. West Wanaka pastoral lease itself contains no areas with a reliable snow cover. As is the case for other activities based in the West Wanaka Conservation Area, access through the pastoral lease is integral for this activity.

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### Significance of Recreational Values

West Wanaka contains a number of routes into a large area of conservation land which is effectively land locked. The lake, and to a lesser degree the river margins receive a high and increasing level of recreational use. The property forms a scenic back drop to a range of activities.

## PART 3

### CONSULTATION AND DISTRICT PLANS

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#### 3.1 CONSULTATION

An "early warning" meeting was held in Alexandra on the 30 April 1997.

A summary of points raised is as follows:

- Suggested that widening the marginal strip around Lake Wanaka be investigated.
- Lookout Hill identified as a possible walk (view point).
- Extensive landscape and botanical values on lake faces discussed.
- Minaret Burn seen as Priority for public access - vehicle to Colquhouns Flat - Mountain Bike and foot access beyond Minaret Burn?
- Tall Matukituki Matagouri stand identified as valuable (flats above Soft Burn Mouth)

Written comments presented in a report prepared by Mike Floate on behalf of Federated Mountain Clubs are summarised below:

#### Recreation:

Public access to:

- Buchanan Peaks via Daniels Spur
- Black Hill
- Minaret Burn via legal road to Colquhouns Flat and beyond to lower Minaret Burn.
- Foot and mountain bike and 4WD access through Soft Burn/Station Creek track to Colquhouns Flat (return via legal lake shore route).
- Foot access up Round Hill Spur from Matukituki Valley.

Public use of huts at upper pastoral lease boundary in Minaret Burn (Slip Stream) and mouth of Minaret Burn.

**Landscape/Natural Values:**

- Protection (reservation) of areas of natural vegetation on Lake Faces.
- Suggest that landscape protection should be a condition of freeholding the property. FMC does not believe that landscape protection provisions in the notified QLDC plan are sufficiently robust or enduring to protect natural values from inappropriate developments.
- Protection of Matukituki Valley wetlands.
- Protection of *Olearia hectorii* stands.
- Protection of natural shrublands in vicinity of Soft Burn/Station Creek saddle.
- Matukituki valley bush remnants should be protected (by covenant?).

**3.2 DISTRICT PLAN (MATTERS OF NATIONAL IMPORTANCE)**

West Wanaka lies within the Queenstown Lakes District. A draft district plan has been prepared for the council. This plan is currently undergoing a lengthy submission process. In the mean time, the transitional district plan remains the principle planning document although council must also have regard for the proposed plan.

Under the transitional plan 90% of the property is zoned rural L (landscape protection) with the flats around Round Hill being Rural B, and the Minaret Burn being Rural C. Rural L zone policy is to provide protection to areas of high visual amenity by limiting permitted uses to those sympathetic to visual environmental values.

Predominant uses are:

1. Farming of any kind.
2. Parks and Reserves.
3. Water and Soil Conservation.
4. Buildings associated with the above uses including dwellings.

Conditional uses include huts and camping grounds.

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Under the proposed district plan relevant rural policies include:

"to safeguard the natural character and conservation values of the riparian margins and associated ecosystems".

"to encourage the retention and enhancement, enhancement and re-establishment of wetlands and vegetation adjacent to, and associated with water bodies".

The majority of the property lies within an "area of landscape importance". The plan places strict controls on activities including building and earthworks but permits current pastoral activity and associated land management practices.

The balance of the property within the proposed Rural Upland Zone. Controlled activities (permitted subject to conditions) in this zone include buildings, earthworks, tree planting and mineral exploration. Discretionary activities include mining and commercial recreation activities. Non complying activities include power generation facilities. There are no prohibited land based activities within the zone.

The council may consider applications on a non notified basis for certain activities including all controlled activities.

*Olearia hectorii* in the Matukituki Valley, the West Wanaka lagoons, matai, *Olearia hectorii* and *O. fragrantissima* at the West Wanaka bridge have been scheduled as being areas having significant indigenous vegetation and significant habitats of indigenous fauna for sustainable management.

### **3.3 CONSERVANCY CONSERVATION MANAGEMENT STRATEGY**

The Otago Conservancy of DOC has produced a draft Conservation Management Strategy (CMS) which is nearing final approval, after a lengthy planning which involved public consultation.

The CMS identifies 41 special places of conservation interest in the Otago Conservancy. West Wanaka pastoral lease lies within the Matukituki Special Place (Special Place #34).

The West Wanaka Conservation Area which adjoins West Wanaka pastoral lease is part of the South West New Zealand World Heritage Area

The stated objective for this special place is :

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"To protect the high landscape and ecological values of this major access corridor and buffer to Mount Aspiring National Park and provide for an appropriate range of recreational uses compatible with the character of the valley and surrounding mountains and with the maintenance of high quality visitor experiences.

Relevant implementation policies are :

- (a) An increase in the area of wetland under formal protection will be sought.
- (b) Formal protection will be negotiated for areas of *Olearia hectorii*.
- (c) Building controls and sensitive use of the valley will be advocated to protect the high landscape values.
- (d) Opportunities that may arise through pastoral lease tenure reviews, will be use to negotiate for the protection of areas of high landscape and biological importance and to secure recreational access to valued areas and to lead to more efficient or effective conservation management.
- (e) Advocacy under the Resource Management Act and any other relevant statute will be maintained to secure protection of significant natural and historic resources.
- (f) A freshwater fisheries survey will be carried out.

The stated priority for the area is "Improving the security of and opportunities for enhanced public enjoyment of this Special Place".

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