

## **Crown Pastoral Land Tenure Review**

**Lease name : Glen Dhu Station**

**Lease number : PO 379**

### **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**

# GLENDHU PASTORAL LEASE CONSERVATION RESOURCES REPORT

## INTRODUCTION

Glendhu Pastoral Lease is one of a group of four adjoining pastoral leases within the Wanaka Ecological District which are being investigated by the Crown for tenure review. This report describes the conservation resources identified on the Glendhu Pastoral Lease and outlines the basis for discussion between the Crown agencies and the lessee for tenure review.

Glendhu Pastoral Lease is a property of 3144 ha located near Glendhu Bay and is sandwiched between the Motatapu, Matukituki Rivers and part of Lake Wanaka. The formed Mount Aspiring Road traverses the centre of the property and is a popular tourist and skiing route to the upper Matukituki Valley and the Treble Cone skifield.

The conservation resources report is based on a recent comprehensive survey of the area and previous reports that had been done by various agencies and individuals.

## 1 ECOLOGICAL FEATURES

### a Physical Description

#### i Topography

Glendhu Station is largely composed of a glaciated landscape with roche moutonee features - two high rounded hills with steep cliffs and rounded spurs, along with small lakes and wetlands in hollows and boulderfields. Diamond Lake is the largest lake on the property. Alluvial flats are found adjacent to the Matukituki and Motatapu Rivers, as well as around the lower Fern Burn alongside the Motatapu Road.

#### ii Geology/Soils

Primarily Haast schist with Paradise yellow-brown earths.

#### iii Altitude

This lease extends from the shores of Lake Wanaka, 279 m to two high points above the Motatapu Road, being 782 m and 775 m asl respectively.

### b Vegetation

#### i Introduction

Glendhu, while being a low altitude property has pockets of diverse vegetation scattered around the steeper slopes and bluffs. Previous reports have identified the key areas of Glendhu Bluffs/Parkin Bay and Diamond Lake as being worthy of protection. These are predominantly broadleaf forests of broadleaf *Griselinia littoralis* kohuhu, *Pittosporum tenuifolium* and wineberry *Aristotelia serrata*. Outside of these remnants the remainder of the property is predominantly exotic grassland that has been oversown and topdressed or ploughed, along with extensive areas of pasture and bracken fernland.

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ii Plant Communities

Mixed Broadleaf Forest: The two main forested areas are centred around the Glendhu Bluffs/Parkin Bay area and the bluffs around Diamond Lake, above Hospital Flat. These forests are predominantly kowhai *Pittosporum tenuifolium* and broadleaf *Griselinia littoralis* around Glendhu Bluffs, and wineberry *Aristotelia serrata* above Diamond Lake. These canopy trees are up to 10 m in height with the taller trees usually confined to the gullies and under the higher bluffs. Younger trees radiate out from the central core. Other species within these forests are mainly marble leaf *Carpodetus serratus*, mahoe *Meliccytus ramiflorus*, tree fuchsia *Fuchsia excorticata*, along with the occasional kowhai *Sophora microphylla*. Shrubs of *Coprosma* spp., koromiko *Hebe salicifolia* and *Olearia avicenniaefolia* are scattered throughout in the understory and are prolific along the forest margins. Near the bluffs cabbage trees *Cordyline australis*, flax *Phormium cookianum* and the occasional lancewood *Pseudopanax crassifolius* occur. Above Diamond Lake in the bluffs, matai is growing among the broadleaf forest.

On the outer edge of these forest remnants, the broadleaf species become smaller as they merge with the shrubland and surrounding bracken fernland.

Two areas, away from the main bluffs, have a differing vegetation mix. One area south of Hospital Flat near Trig FF under a steep bluff, contains a number of kowhai trees of varying ages, which dominate the broadleaf forest. The other area is located in bluffs about 1.5 km north of Diamond Lake at 680 m asl. This area of broadleaf forest contains trees of the rare *Olearia hectori* growing on the outer fringe and several *Hoheria lyallii* trees at the base of the bluffs.

Bracken Fernland: Bracken occurs on the deeper, well-drained soils below the rock outcrops or on steeper boulder slopes. Its height varies depending on its locality and management. A major area above Hospital Flat of large boulders and bluffs contains bracken 1-2 m tall that is quite dense. Growing in amongst the bracken are a variety of broadleaf seedlings.

Wetland Vegetation: This is largely confined to the area around Diamond Lake and wet stretches alongside the Motatapu River. Around the edge of Diamond Lake, raupo forms a continuous band at the water's edge. Willows dominate the land margin along with herbs and rushes. Elsewhere in flushes and wet areas *Juncus* and *Carex* are common, but the normal assemblage of native herbs have largely disappeared.

Grassland: Short, grassy spurs around the bluffs above Diamond Lake are primarily brown top, sweet vernal and coxfoot. *Gaultheria antipoda*, tutu *Coriaria sarmentosa*, and scattered *Coprosma propinqua* grow in these areas. Some blue tussock *Poa colensoi* and fescue tussock is scattered throughout the property, while exotic grasses make up the major component elsewhere.

Bluff and Rock Outcrop Vegetation: The bluffs are usually surrounded by broadleaved forests with shrubs growing on the ledges along with mountain flax, *Poa colensoi*, and *Olearia* spp. The golden Spaniard *Aciphylla aurea*, *Gaultheria crassa* and narrow-leaved snow tussock *Chionochloa rigida* also make up part of the diverse plant community.

While these communities are remnants that are scattered amongst the bluffs, the areas of principal conservation interest could be isolated into three parcels of land and ideally fenced off to exclude stock. A fourth isolated area contains the *Olearia hectorii* and should also be fenced off.

c Fauna

i Vertebrates

No distinctive or rare fauna are known from the area. The bush remnants host fantails, grey warblers, sparrows, finches and high numbers of bellbirds. The grasslands host skylarks and pipits along with the occasional NZ falcon, which sometimes nests at Hospital Flat.

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Diamond Lake and other water areas are used by scaup and grey teal, while the edge of Parkin Bay is used by black swan on occasions.

ii Invertebrates

While this is a low altitude area, the forest/shrub remnants should contain a variety of native invertebrates. However, no specific surveys have been carried out.

iii Aquatic Fauna

The two major rivers contain trout, while the Fern Burn is an important spawning stream for rainbow trout. No specific fisheries information on Diamond Lake is available.

d Plant Pests

Glendhu has the usual assemblage of weeds that are a problem from a farming perspective. Briar occurs on many of the lower slopes, and becomes a component of the native shrubland around the forest margins. Tussock hawkweed *Hieracium lepidium* is widespread under much of the forest canopy, but is not widespread elsewhere on the property.

While not necessarily a pest, willows are prominent around Diamond Lake, parts of Parkin Bay and along most of the bank of the Motatapu River. While not threatening native forests, they may displace certain species such as kowhai.

e Landscape

Glendhu Station has three distinct landscape features, each with its own unique characteristics. This property forms part of the gateway to the Motatapu Valley and the Matukituki Valley. The rounded glaciated rock hills, with their numerous cliffs and remnant forests, contrast with the surrounding high mountains. The Matukituki Valley is hidden from view as the Mount Aspiring road winds its way past the Glendhu Bluffs, over the hill to Hospital flat and then past the two high hills on either side of the road. It is only past the Motatapu Bridge that the true Matukituki Valley is revealed, with the Harris Mountains on one side of the valley and the roche moutonee of Glendhu on the other side. This hill is gently rounded with fewer cliffs and only a couple of bush remnants still remaining. This hill slope contrasts with the flat irrigated pasture at the base of the hill on the adjoining Cattle Flat Station.

The Glendhu and Parkin Bay landscape has a setting of its own, being dominated by Lake Wanaka and the tree-lined foreshore. The Glendhu Bluffs and the highly developed farmland on Roys Peninsula provide a distinctive background.

The third remaining landscape is the entrance to the Motatapu Valley. The broad highly developed flats have the smooth hill slope on one side and the steep bracken topography of Roys Peak on the other. This landscape gives way to small hills and then the tree-lined Motatapu River as it sweeps north into the Matukituki Valley.

In terms of landscape criteria, Glendhu Station is highly visible and very distinctive, because of its topography. While the overall naturalness rating is low, key areas have a high rating because of the remnant native vegetation. Because of the property's topography, location and the fact that it is highly visible, any human disturbance must be handled sensitively as the overall landscape is highly visible from the adjacent Treble Cone skifield and its road which overlooks the whole property. An earlier landscape assessment for Queenstown Lakes District Council suggested that the Motatapu and Matukituki Valleys should be considered as a heritage landscape. Glendhu Station is the key to this concept. Development on the property, whether from a commercial viewpoint, ie, subdivision, high rise buildings, or from forestry, needs to be handled very sensitively. It is considered that if at all possible the current status quo farming management system has less potential to affect the overall

landscape. In order to achieve this a landscape covenant could protect the existing landscape into the future.

## 2 CULTURAL FEATURES

### a Recreation

#### i Legal Access

Glendhu currently has no legal access points on to it or through it for the public. Legal roads traverse along part of the property's lake frontage in the Glendhu/Parkins Bay area. The Motatapu Valley, Mount Aspiring Road and the West Wanaka Road pass through the property. Marginal strips already exist on the Motatapu and Matukituki Rivers, as well as along the Wanaka foreshore from Glendhu Bay through to Parkins Bay. The only other stream of any consequence is the Fern Burn and the provision for a marginal strip may need to be clarified.

#### ii Existing/Proposed Recreational Use

Parts of Glendhu already receive a high degree of recreational use and potential exists for this to increase. A local Wanaka businessman has developed a walking track around Diamond Lake to the top of an adjacent hill, which is proving extremely popular. Between 6000-8000 people have already used this area over the last year. On occasions some 40 cars have been counted at the Diamond Lake car park. The adjacent bluffs near Diamond Lake and above Hospital Flat have become a mecca for local rock climbers. Numerous routes exist on these bluffs and boulders.

Day use and informal camping occurs on both banks of the Motatapu River near the bridge on the Mount Aspiring Road, on the fringe of Glendhu Station.

A tenure review proposal on the adjoining Alpha Burn Station proposes public access up the Fern Burn. A link of 100 m over Glendhu Station is desirable to allow this to occur.

Canoeing and tubing are popular on the Motatapu River with a number of people entering the water below the Motatapu Gorge and floating down the river to the Mount Aspiring Road. Mountain bikers and commercial operators are currently utilising a farm track high above the Motatapu River that runs past Trig FF between these two roads.

The foreshore of Lake Wanaka is popular over the summer months with boaties and picnickers utilising the area. Glendhu Bay Recreation Reserve is an extremely popular camping ground and is full to capacity over the peak holiday times. On these occasions public day access to the foreshore is difficult because vehicle access is controlled by staff manning the entry/exit gates to the area.

This tenure review exercise is intended to formalise existing public use and cater for the potential that exists in the area. The Diamond Lake/hilltop route would be included in this formalisation process and an easement would allow a walking track to be extended around this hill on approximately the 650 m contour. This track would link up with the *Olearia hectorii* area and provide a range of views over the Matukituki River and lower Motatapu before linking back on to the existing Diamond Lake circuit. Extended walking access is also desirable from the Motatapu Gorge Bridge along the full length of the Motatapu River to its confluence with the Matukituki River. From here the route would go down the Matukituki River to the West Wanaka Bridge. While most of this route could be catered for within the marginal strips, extensions to this strip or easements will be required in some areas. Sites for car parking are required at the two Motatapu bridges, while an existing recreation reserve at the West Wanaka Bridge would be a useful car park. A link from the hill top loop to the riverside track may be desirable in the longer term.

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Good walking access is also required to the rock climbing areas from the Mount Aspiring Road near Hospital Flat. The farm track over Trig FF from the Motatapu Road to the Mount Aspiring Road should have an easement for non-vehicular use, while vehicle use should remain at the discretion of the landowner. The Wanaka foreshore between Glendhu and Parkin Bay requires better public access and opportunities for extending the public reserves in this area are required. Also, opportunities may exist for tracks to be formed in the Glendhu Bluff and Parkin Bay area.

**b Historic**

**i Maori Occupation**

The area around the Glendhu and Alpha Burn Pastoral Leases was occupied by the people based in the lower Waitaki during the early and late historic period. Early in the 18th Century the Waitaha had occupied the area, but left after a battle with the Ngai Tahu. This battle took place at the traditional settlement of Parakarehu which was based in the vicinity of Glendhu Bay.

This area was abandoned in 1836 after a Te Puoho raiding party swept through the area. Prior to this period it is thought that some 20 people may have occupied the settlements around Wanaka and Hawea. On Glendhu the only other occupation site was Nehenehe at the junction of the Motatapu and Matukituki Rivers where middens were present. When the first Europeans moved into the area there were no Maoris occupying the area.

Evidence of Maori occupation on Glendhu is scarce. The middens at Nehenehe reported last century have not been rediscovered. A spot find of a rolled argillite adze was found near the West Wanaka Bridge and a wooden paddle was found near the Diamond Lake turnoff.

**ii European History**

The first Europeans arrived in the area in 1853 and 1959 the land was occupied by John Roy who created the large Wanaka run which included the Alpha Burn and Glendhu Stations. Falling wool prices and rabbits led to the Lake Wanaka Run being subdivided into smaller runs in the 1880s. In 1897 Glendhu Station was formed and farmed by Henry Barker and later by W A Scaife and Sons in 1908 in conjunction with West Wanaka.

In 1928 Glendhu was separated from West Wanaka and in more recent times Glendhu was subdivided into two creating the Alpha Burn Pastoral Lease.

No physical remains of historic sites of European origin are known to occur on this run. Part of the original Glendhu homestead still exists buried beneath the building extensions and alterations, but the integrity of the original building has been lost.

**3 MANAGEMENT CONSIDERATIONS**

**a Fencing**

New fencing will be required to implement these proposals, approximately 10 km. This includes fencing the Glendhu Bluffs/Diamond Lake area on both sides of Mount Aspiring Road, and the *Olearia hectori* area. The proposed recreation area on the Wanaka foreshore could be incorporated within existing fences.

**b Weeds**

Briar is the main woody weed on the property and is not expected to be a problem for conservation management and forms part of the shrubland community. Tussock hawkweed is prolific under the forest canopy but is not expected to be a problem for conservation management.

Wilding pines in the Parkin Bay area are a major landscape detraction. Elimination of these trees is desirable, and could be achieved by allowing some of them to be milled and the others could be felled. The initial impact of this would be high but in time the area would recover.

Willows around Diamond Lake, the Wanaka foreshore and alongside the Motatapu River are part of the present landscape, but it may be desirable to consider removing some trees in the future.

**c Recreation**

The access points would need to be identified by signs, stiles and markers. The area of major use and development is the existing Diamond Lake lookout track which could be upgraded to cater for a wide variety of groups. Facilities such as car parking, toilets and picnic areas will need to be considered during any implementation phase, resulting from this tenure review. The recreation potential on Glendhu Station is one of the most exciting opportunities to possibly become available as a consequence of tenure review on a pastoral lease handy to Wanaka.

**d Landscape Protection**

A landscape covenant over the freehold would limit development opportunities for the landowner. However, it could ensure that the existing landscape that exists today survives into the future. While this would allow the farming operation to continue and develop it would stop subdivision, large buildings, plantings, and provide for some control on earth disturbance. Existing bush remnants and small wetlands would be protected, along with the broader landscape features.

**e Existing Conservation Land**

Opposite the West Wanaka Road turnoff is an isolated 20.23 ha area of conservation land that is surrounded by the existing Glendhu Pastoral Lease. It is envisaged that the majority of this conservation land should be incorporated into any new areas. However, rationalisation of the boundaries may be desirable as well as ensuring that public access is obtained.

**RECOMMENDATIONS**

- 1 The principle conservation values on Glendhu Station of the mixed broadleaf forest, wetlands, bluff and rock outcrop vegetation be transferred to the Department of Conservation
- 2 All the land marked in pink be available for freeholding subject to:
  - easements over the formed track past Trig FF
  - easements for the loop track north from the Diamond Lake area
  - easement from the loop track to the Matukituki River
  - easement from the Motatapu road up the Fern Burn to the Alpha Burn boundary
  - easements near the Fern Burn to Lake Wanaka
  - provision for extending marginal strip alongside the Motatapu and Matukituki River margins if necessary to allow for public access
  - easements to contain restrictions, ie, no dogs, guns, and be for non-motorised use except for the easement down to Lake Wanaka, otherwise permission is required from the landholder for vehicle use.
- 3 That the cost of new fencing required on the proposed boundaries between conservation lands and freehold be apportioned through tenure review negotiations.
- 4 That a landscape covenant apply over the entire freehold so as to maintain the landscape character of the entrance to the Motatapu and Matukituki Valleys, as well as ensuring retention of several small forest and shrubland remnants.

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# GLENDHU STATION CONSERVATION RESOURCES REPORT

## EXECUTIVE SUMMARY

Tenure review on Glendhu Station should recognise the following.

- a The highly visible broadleaf forest on the Glendhu Bluffs/Parkins Bay area above and below the road be managed for conservation purposes.
- b The spectacular bluffs above Hospital Flat around Diamond Lake to the high point 775 m should be managed for conservation purposes. This would include the existing Diamond Lake and lookout walking tracks.
- c Linked to the above should be the boulders and bluffs as well as the kowhai/broadleaf forest near Trig FF. These areas would be a contiguous unit, protecting a unique and spectacular landscape, as well as providing for continued recreation use.
- d A small flat near the Diamond Lake turnoff through to the Motatapu River should also be managed for conservation purposes as it is part of the total landscape of the area and will allow for recreation use to be catered for.
- e A small area of broadleaf forest containing the endangered *Olearia hectori* about 1.5 km north of Diamond Lake at 680 m should be managed for conservation purposes and fenced to protect the *Olearia hectori* from stock.
- f Provision for future recreation reserves along the Lake Wanaka foreshore is desirable. Ideally this would result in land north of Glendhu camping ground becoming a reserve for day use only, and another area in Parkins Bay under the Glendhu Bluffs near the poplars should also cater for recreational use. Also an extended area near the mouth of the Fern Burn is desirable.
- g Formalisation of public access is desirable over the following areas:
  - i Down the full length of the Motatapu River and down the Matukituki to the West Wanaka Bridge. A small terrace near the Motatapu Gorge Bridge could provide car parking and an easy access route into the river.
  - ii The farm track between the Motatapu and Mount Aspiring Road over Trig FF should be available for walking and mountain biking.
  - iii An extended track from above Diamond Lake along the 650 m contour would provide an alternative walking route above the Matukituki and Motatapu Rivers and could possibly link up with the Matukituki Valley below.
  - iv Access for vehicles from the Mount Aspiring Road to the Lake Wanaka foreshore near the Fern Burn is desirable to provide access to the marginal strip. Access to the foreshore is desirable directly from the Mount Aspiring Road.
  - v Access from the Motatapu road up the Fern Burn to the Alpha Burn property boundary is desirable to provide a link into the Fern Burn catchment.

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h A landscape covenant is desirable over the proposed freehold and should provide protection for some of the smaller remaining bush remnants. This covenant could protect the landscape system that provides a setting to the entrance of the Matukituki and Motatapu Valley. This covenant should ensure that while farming can continue, development of the foreshore, subdivision, buildings, plantings and earth disturbance are minimised.

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