



## **Crown Pastoral Land Tenure Review**

**Lease name : Glenariffe**

**Lease number : Pc 129**

### **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 May 2003**

## Conservation resources of Glenariffe Pastoral Lease, Canterbury

*Department of Conservation, Canterbury Conservancy, Pastoral Lease tenure review report to Knight Frank Limited*

April 18, 1997

### PART 1 - INTRODUCTION

#### 1.1 Glenariffe

Glenariffe Pastoral Lease is a long narrow property of 4,799 ha running approximately north-south and centred around the upper catchment of the North Branch Ashburton River and the northern end of the Black Hill Range.

Land adjoining to the north is Glenariffe freehold and Crown river bed (Rakaia River), to the west is Double Hill pastoral lease, and to the north-east and far south is Glenrock pastoral lease, parts of which are retired. To the east, south and south-west is Unoccupied Crown Land, previously Glenariffe and Winterslow Pastoral Occupation Licences (POLs), in the process of being gazetted Conservation Area.

The property lies across two ecological districts - the bulk of the property is in the Mt Hutt Ecological District, with a very small portion of the Mathias Ecological District on the alluvial flood plain of the Rakaia River at the very northern tip of the property. Both districts have been surveyed as part of the PNA Programme (see Arand and Glenny, 1990). Four whole or part RAPs have been identified on the property - Mt Hutt RAP 12 (Powerhouse Stream) (280 ha), Mt Hutt RAP 14 Rakaia Faces Forest Remnants (of which only Gerard Stream (15 ha) is on the property), and Mt Hutt RAP 22 (Turtons) (of which approximately 600 ha is on Glenariffe).

Other pastoral leases in the vicinity that are, or have been undergoing tenure review include Double Hill to the west, and Redcliffe and Glenrock to the east.

### PART 2 - CONSERVATION RESOURCE DESCRIPTION

#### 2.1 Landscape

##### 2.1.1 Context

Glenariffe comprises parts of two wider landscapes - the upper Rakaia River valley landscape and the landscape of internal ranges and valleys of the Hutt district.

The upper Rakaia valley landscape is a well-known, dramatic and readily accessible high country landscape considered to be of nationally outstanding landscape value. Vivid glacial landforms provide a spectacular backdrop to the braided Rakaia Riverbed. Within this landscape, the Rakaia riverbed has been identified as an area of national value and as an outstanding natural feature in the Canterbury Regional Landscape Study by Boffa Miskell and Lucas Associates (1993). The mountain ranges along the river's southern edge have been described as regionally significant. The Glenariffe pastoral lease comprises an extensive area of river flats and also includes around one-sixth of the total length of the mountain ranges along the south side of the river.

A second landscape context is the internal range and valley landscape, not at all visible from public viewpoints except by air. Glenariffe forms a part in the centre of this area, which has been identified in the Canterbury Regional Landscape Study as regionally significant.

### 2.1.2 Landscape character types

Within these wider landscape settings Glenariffe pastoral lease consists of four distinct landscape character types.

#### 1. *Rakaia Valley Floor*

This area comprises the expansive open grassy Rakaia River flats, and a large alluvial fan (Glenrock Stream) spilling out on to the flats from the steep Rakaia faces above.

The river flats are largely open and treeless, with a dense mainly exotic grassland cover, and a number of small but deep clear streams and wetlands. A few willows are dotted down stream courses.

The large alluvial fan of Glenrock Stream is modified with cultivated paddocks and coniferous shelter belts.

#### 2. *Rakaia Faces*

The northern faces of the Palmer Range, Black Hill Range and those below Donald Hill, stretching for 16km along the south side of the Rakaia valley, are considered collectively to be the most significant natural feature of the south side of the upper Rakaia valley because of their highly distinctive (and highly visible) natural form and their size. Approximately 6 km of these are within Glenside-Glenariffe pastoral lease.

The mid to lower slopes, rising from around 450-600m asl to 1300m asl, are large, steep, glacially smoothed and grooved, and rectilinear in shape with a grassland cover of snow and short tussock, scattered matagouri and exotic pasture species. They are deeply dissected by Donald Stream, Glenrock Stream, Gerard Stream and an unnamed stream to the west of Glenrock Stream resulting in four geometrically

shaped facets or "blocks", which themselves are more finely dissected by straight-run channels and deeper gullies incised in their surfaces.

These mid to lower slopes have been subdivided into smaller grazing blocks and oversown and topdressed. Fencelines are clearly visible in some places due to sharp, unnatural changes in colour of vegetation cover.

The low grassland cover and the relative lack of visible cultural modification contribute to the vividness of the landforms and subtle topography of their surfaces, and to their high overall intactness and natural appearance. The large scale and simplicity of the landscape is also emphasized.

The upper slopes above the level of glacial scouring are a deeply dissected steep spur, valley and basin landscape. Snow tussock intermixed with small areas of scree covers the slopes.

### 3. *Turtons Basin*

This is a broad open basin and plateau area at the head of Turtons Stream and skirting around the north side of Black Hill, which overlooks the Rakala valley.

Broad, smooth-surfaced, rolling and terraced fluvio-glacial landforms typify the area, with a generally dense snow tussock cover, especially on the slopes enclosing the west side of the basin. Dense red tussock occurs on the western flanks around Turtons Saddle. On the lower slopes and valley floor terraces of Turtons Stream, especially south of Ensors Stream, tussock cover becomes more open and is instead dominated by short tussock with widespread hawkweed, and surface erosion. The enclosing mountain ranges are high and steep with typically wide planar slopes. Scree, bare ground and rock outcrop increasingly dominate with altitude.

The huge scale and openness of the area, and the smooth rolling landforms accentuated by the uniform tussock cover, create a visually impressive landscape of highly distinctive natural character.

Notable landscape features in this area include the massive flat-topped form of Donald Hill, and the outwash surfaces in the valley, unusual at such high altitude in the district.

Two boundary fences and a bull-dozed line up Donald Hill, a hut in Ensors stream, and a 4WD track passing down the valley are the only obvious modifications in this highly impressive natural landscape. The upper slopes of the Black Hill range have been retired and fully fenced off from the Glenariffe pastoral lease.

### 4. *Turtons-Ashburton Valley*

This 13km long fluvial valley between the Black Hill, Palmer and Taylor Ranges is drained by Turtons Stream and the North branch of the Ashburton River. It is the largest valley in the Hutt district.

It is a large, relatively straight and open river valley trending north-south, with the valley floor altitude ranging from around 700m asl at its lower end to around 1000m asl at the upper end. A narrow bouldery floodplain with minor terraces occupies the valley floor. Very steep, planar and well-dissected greywacke side slopes rise to over 2000m. The upper slopes above 1300m asl on both sides are retired from sheep grazing but there is no retirement fence. Cattle grazing only is permitted

Vegetation cover is sparser in this valley than Turtons Saddle, with short tussock, hawkweed and *Celmisia* over the lower slopes, intermixed with frequent erosion patches, slips, scree and rock outcrop. Snow tussock replaces short tussock higher up, with scree and rock becoming increasingly dominant.

Canterbury Regional Council experimental conifer and willow conservation plantings exist in the first valley south of Comyns stream and in Turtons Stream. Gorse was present in Turtons Stream in January 1996.

A boundary fence, a 4WD track to Comyns Hut (from Turtons saddle), Comyns Hut and a holding paddock fence are the only obvious modifications but are insignificant in the scale of this landscape, which retains a high degree of apparent naturalness.

### 2.1.3 Visual values

The whole of the mountain ranges forming the south side of the upper Rakaia valley are considered to be a highly significant part of the visually spectacular valley landscape. This is due to the massive scale and contrasts of the dramatic glacially carved mountain slopes accentuated by the predominantly uniform tussock grassland cover, the vast braided Rakaia riverbed, and the large alluvial fans and terraces neatly subdivided into green conifer-lined paddocks

Virtually all of the mountain slopes and lower fans and flats facing the Rakaia are clearly visible from the upper Rakaia/Coleridge area - from the Coleridge Downs road, Homestead Road, Algidus Road and Coleridge Intake Road on the east side of the Rakaia, from the Rakaia riverbed itself, and from Double Hill Run Road on the west side, which passes through the pastoral lease close to its northern boundary.

Although the property is not viewed from any major roads or settlements, the upper Rakaia is popular and an easily accessible recreational area within a couple of hours drive of Christchurch. The Rakaia riverbed is an important recreational fishing and a nationally important jet boating area. The Coleridge-Homestead-Lyndon road is also an important link between SH72 and SH 73, as a "backroad" alternative to the long way round through Springfield and Coalgate, and offers a backcountry experience that is not too arduous, of relatively short duration, well used, and at no point far from sealed roads.

The internal range and valley landscape is not visible at all from existing public viewpoints except by air. The Turtons basin landscape, however, is a visually impressive landscape. As well, there are exceptional views out over the Rakaia valley from the hillslopes above Turtons Saddle.

## 2.2 Landforms and geology

The underlying rock is greywacke and argillite with minor associations of conglomerate and metavolcanics. Pleistocene outwash gravels infill the basins and mantle mountain slopes. The Rakaia River is greywacke and argillite, overlain by Pleistocene till and outwash, and recent alluvium and loess.

The major landform groups on the property are:

- high relief, moderately steep mountains with rounded ridge crests and moderately wide valley floors in the Turtons Stream/North Branch Ashburton catchment
- planar, very steep, glacially scoured slopes along the "Rakaia faces" with several very steep-sided gorges with waterfalls and cascades (Powerhouse, Donald and Gerard Streams)
- an intermontane basin (Turtons Saddle) comprising several flat-topped, low-relief outwash terrace and alluvial fan surfaces deeply dissected by tributary streams of the North Branch Ashburton River, and adjoining smoothly contoured mountain slopes.
- moderately steep wide alluvial fan of Glenrock Stream, and
- multiple old river and flood channels of the Rakaia River, separated by sand and gravel bars and dissected by the streams of Double Hill and Glenariffe Streams.

## 2.3 Vegetation

The vegetation on Glenariffe is predominantly tussock grassland - with localised patches of shrubland. Very small areas of forest remain in Powerhouse Stream, Gerard Stream, the North Branch of the Ashburton River, Donalds Stream and Kings Drive Stream. Scree make up large portions of the high altitude slopes, above approximately 1500m. This is now mostly outside the property. There are also intensively developed pastures and crops on the Glenrock Stream fan. In more detail the vegetation is composed of:

### *Tussockland*

- The majority of the property is covered in short tussock grassland. Fescue tussock is the predominant species but silver tussock is common on the topdressed slopes of the Rakaia faces. Fescue tussocklands are extensive

over mid-altitude slopes on the Rakaia faces, the upper Glenrock Stream, Rakaia riverflats, and throughout the Turtons Stream and the North Branch Ashburton River catchments. Along with fescue tussock the most common species in these communities are cotton daisy (*Celmisia spectabilis*), sweet vernal, blue tussock, hawkweeds and mat daisy (*Raoulia subsericea*). Slim snow tussock starts to come into these short tussocklands above approximately 1100m.

Silver tussock, rather than fescue tussock, is more common on the lower altitude Rakaia faces (below 800m). Here the main inter-tussock species are exotic grasses and herbs such as cocksfoot, meadow fescue, tall oat grass, white clover, sorrel, vulpia hair grass, a number of bromes, and haresfoot trefoil.

### Riverflats

- The principal tall tussock species on the property are slim snow tussock (*Chionochloa macra*) and red tussock (*Chionochloa rubra*). Slim snow tussock remains at altitudes above approximately 1100m on the Rakaia faces, around Turtons Saddle and in the Turtons Stream/North Ashburton River catchments. Tussock cover is commonly around 50-60% with the other main species being fescue tussock, *Pimelea oreophila*, *Hieracium pilosella*, *Leucopogon fraseri*, *Raoulia subsericea* and cotton daisy. Bare ground is uncommon except on steepened sideslopes where pedestalling of tussock has occurred with deflation hollows on exposed sites around Turtons Saddle.
- As well as slim snow tussocklands there are also patches of tall dense red tussock on the outwash terrace surfaces around Turtons Saddle, on the slopes of Donald Hill and to a very minor extent around the Glenariffe Stream/Rakaia Riverflats. Bog rush (*Schoenus pauciflorus*) is commonly mixed throughout the red tussock, particularly on damper sites, as well as herbs of *Anisotome aromatica*, *Celmisia gracilentia*, *Ranunculus foliosus*, *R. gracillipes*, *Acaena profundeinclsa* and browntop. White clover is dominant in some localised patches. The red tussocklands are commonly bordered by tussock grasslands of fescue tussock, cotton daisy, and hawkweeds.

The two areas of red tussock on the Rakala Riverflats are very small (<0.5ha) and are dominated by exotic grasses and herbs. One area is associated with Glenariffe Stream on the south side of the Double Hill Road with a slightly bigger patch on the north side of the road, close to the Research Station end of the flats

- In the red tussock below Donald Hill there is a small (<2m diameter) cushionfield of *Oreobolus pectinatus*. Other common species in this cushionfield are *Carex gaudichaudiana*, *Epilobium komarovianum*, *Juncus antarcticus* and the rare *Plantago obconica*. A similar, larger cushionfield on Turtons Saddle has been much more disturbed. Another cushion bog at

the head of Ensors Stream is dominated by *Oreobolus pectinatus* and *Carex gaudichaudiana*. This bog is not spoilt by stock trampling.

### Shrublands

Shrublands are only a very small component of the vegetation of Glenariffe. They are predominantly matagouri, and occur as scrub patches, and as scattered shrubs in localised areas throughout the short tussocklands on Glenariffe. Dense thickets remain in the North Ashburton and Glenrock Streams and in steep sided gullies often associated with small forest remnants in streams such as Donald, Kings Drive, Gerard and Powerhouse. Where the matagouri shrublands are extensive such as in the North Branch of the Ashburton the matagouri is commonly mixed with other shrubs of mingimingi (*Coprosma propinqua*), tauhinu (*Cassinia leptophylla*), *Hebe traversii* and occasional mountain ribbonwood.

### Forest

Very small pockets of treeland or forest remain on Glenariffe. These occur in Powerhouse Stream, Gerard Stream, Kings Drive Stream, Donald Stream and on a small area of riverflat in the North Branch of the Ashburton River.

- The forest remnants in Powerhouse Stream are located around and just above a waterfall and include about 30 small southern rata trees, kowhai, broadleaf, golden ake ake (*Olearia paniculata*), cabbage tree, *Hebe traversii*, kohuhu (*Pittosporum tenuifolium*) and mountain ribbonwood. Also within the steep walled part of the catchment, growing on dry soil under a rock overhang, is a fern *Pleurosorus rutifolius* - an uncommon species in Canterbury, but known locally from Lake Benmore to Lowry Peaks Range (North Canterbury).
- The forest in Gerard Stream is a small mixed-hardwood forest remnant located in a deep, steep sided rocky gully that dissects the planar, north facing slopes of the Palmer Range. The canopy is dominated by broadleaf, kowhai and *Olearia arborescens*, *O. avicenniifolia*, *O. paniculata* along with yellow-wood, kohuhu, mountain five-finger, *Coprosma robusta* and marbleleaf. The understorey is principally matagouri, mingimingi (*Coprosma propinqua*), *C. crassifolia*, and *Hebe rakaiensis* with climbers of bush lawyer and pohuehue (*Muehlenbeckia australis*) and ferns of prickly shield fern on the forest floor.
- In the North Branch Ashburton River there is a small totara grove on the river terrace at approximately GR K35 798472. Along with the totara there are shrubs of kohuhu, matagouri, *Olearia avicenniifolia*, *Corokia cotoneaster*, *Coprosma propinqua* and *Hebe*.
- In the lower reaches of Kings Drive Stream there are scattered treelands and shrublands on steep mountainslopes and interspersed with rock outcrops. The main trees are Hall's totara, broadleaf and mountain ribbonwood with



shrubs of *Olearia avicenniifolia*, *Pittosporum tenuifolium*, *Coprosma propinqua*, *Aristotelia fruticosa*, *Phyllocladus alpinus*, *Olearia paniculata* and matagouri.

- In the mid to upper reaches of Donalds Stream there are small patches of scrub and very small areas of mixed forest. The scrub is principally matagouri, broadleaf, *Olearia avicenniifolia*, *Coprosma propinqua*, *Coprosma rugosa*, *Hebe salicifolia* with tutu, bracken, prickly shield fern, flax and *Blechnum* ferns.

#### Wetlands

Parts of Glenariffe extend onto the floodplain surfaces of the Rakaia River with bars and islands of mainly short tussock grasslands and scattered matagouri. There are also small areas of red tussock and wetland around Glenariffe Stream and close to the south bank of the Rakaia River (Glenrock Swamp)

- The area of "wetland" vegetation around Glenariffe Stream is mainly restricted to a narrow riparian strip consisting of *Carex coriacea*, and bog rush (*Schoenus pauciflorus*) with a high cover of exotics - sweet vernal, browntop, lotus and red clover.
- *Glenrock Swamp* is a wetland of flax, raupo, *Schoenus* and *Carex* spp on a low, floodplain terrace tread of the Rakaia River, at the toe of the fan spreading out from Powerhouse Stream. The northern boundary of the swamp is marked by small streams flowing in braided channels parallel to the Rakaia River. It has been identified as a RAP in the Mt Hutt-Mathias PNA report.

Raupo and flax are confined to fertile wet sites principally in two patches. Raupo is dominant with strips of flax. The other main species present in this wetland are *Carex geminata*, bog rush, Maori onion, matagouri and the exotics red clover, tall oat grass, and Yorkshire fog. Occasional pukio (*Carex secta*) are scattered along small waterways which border the wetland.

On open, slightly damp ground between an area of scrub in the lower end of Powerhouse Stream, and the "swamp" itself the vegetation comprises the sedge *Carex cortacea*, grasses of Yorkshire fog, Timothy, crested dogs tail, browntop as well as red clover and occasional dock. Patches and strips of bog rush (*Schoenus pauciflorus*) become increasingly dominant as the ground gets progressively wetter. Amongst the bog rush are scattered Maori onion (*Bulbinella angustifolia*), *Juncus articulatus* and *J. effusus*, red clover and selfheal (*Prunella vulgaris*).

## 2.5 Fauna

### 2.5.1 Birds

No specific faunal survey was carried out for tenure review but animals recorded during the vegetation field work included N Z pipit, Australasian harrier hawk, and

kea on open tussock country, and bellbird and grey warbler in areas of scrub and forest remnants. Common skinks appear moderately abundant in the grasslands and common gecko would also be likely in this country, although not specifically searched for. Alpine grasshoppers are abundant and it is likely that alpine weta are also about in boulderfields, screes and under rocks in the grassland.

### 2.5.2 Freshwater Fish

Freshwater Fish database records show that, besides salmonids (see later section), Glenariffe Stream supports long finned eel, common river galaxias, upland bully, kaaro, alpine galaxias, and lamprey. The same native species excluding lamprey and koara have also been recorded from Boundary Creek which forms the southern boundary of the Glenariffe lease. Quinnat salmon, brown and rainbow trout are also present. The North branch of the Ashburton River which meets Boundary Creek at the south-east border of the property has upland bully, longfinned eel, common river galaxias and brown trout. The composition of the fish communities in the other streams within the property eg. Turtons, Gerard, Donald Hill, Comyns, Ensor, Mutton Gully is likely to bear a strong resemblance to that of the other streams for which data is present. It also seems likely that the long jawed galaxias which is present in other streams in the area. eg. the Wilberforce River may also be present. As far as is known the Rakaia River and its tributaries do not support any rare or endangered native or introduced fish species

Information on sports fish is included in Section 3.

### 2.6 Historic values

Glenariffe was once part of Double Hill which was taken up in 1858 by Colonel Alexander Lean. In 1911 when the Double Hill leases expired the run was cut into four runs with three being allotted. Glenariffe was drawn by William G Gallagher.

The only known historic places on the property are remnants of a snow fence built in 1890 and possible remnants of the "elephant wire fence". The latter may have been replaced and this is still to be confirmed. Comyns Hut, built between 1895 - 1899 as a mustering hut still stands but has been superseded by a newer adjacent hut. These historic places have local historical interest.

### 2.7 Existing Land status

In the 1960s the property consisted of 10,900 ha of pastoral lease. In 1966 a run plan was signed aimed at retiring 6046 ha of land, defined in 1970 as a POL, Run 337A. The boundaries followed the 4,000 foot or 1200m (approx.) contour on both sides of the Ashburton River. The POL expired in June 1991. In August 1991 it was agreed the land should be transferred to DoC. The expired POL is unfenced except in the north-eastern corner. Retirement was to be achieved by stocking the North Ashburton catchment with cattle only. There was no formal access provided to the POL but the licensees agreed on expiry to provide access from the Ashburton River via Boundary Stream to the Taylor Range and from adjacent retired land on

Glenrock. The Ashburton River downstream of Glenariffe is bounded by marginal strips but for much of the year is uncrossable through the gorge below the confluence with the Swift River. Access from the Rakala River across pastoral lease is by permission only. (Further information on access in Section 2.8.1 below).

*District Plan provisions*

Glenariffe lies within the Ashburton District. The proposed Ashburton District Plan was notified in March 1995.

Under this Plan Glenariffe is zoned Rural C (High Country). The plan also identifies three areas on the property that are of significant conservation value - Area 3 covers the Rakala River bed and the beds of Double Hill and Glenariffe Stream; Area 6 covers Glenrock Swamp (Mathias RAP 2) and Area 7 includes the Powerhouse Stream and Turtons Saddle RAPs (Mt Hutt 12 and 22). The Rakala riverbed is an area of landscape importance.

For areas of landscape importance, areas of significant conservation value, riparian<sup>1</sup> and alpine environments (areas above 1000m) the District Plan has a number of rules:

- No earthworks to exceed 20 metres<sup>3</sup> in volume and/or 50 metres<sup>2</sup> in area in any one hectare in any continuous period of five years, or to be located on slopes greater than 20 degrees.
- No clearance of indigenous vegetation in the Rural C zone to exceed 100m<sup>2</sup> in area in any one hectare in any continuous period of five years, except for amenity plantings.
- No exotic tree planting, except amenity tree plantings (and in the case of riparian management areas - no exotic tree planting intended for commercial purposes)
- No buildings to be erected.

For general landscape values, except for what is provided in the rules above, all building, tree planting (other than of amenity trees), and earthworks (other than the repair and maintenance of operational tracks) located on slopes with an angle of greater than 20°, shall be Controlled Activities in respect on siting, design and methods of construction.

For general "natural conservation values" except what is provided for in the rules above, there should be no clearance of indigenous vegetation other than matagouri, which has an average maximum height of the canopy of greater than three metres, exceeding 1000 m<sup>2</sup> in any area in any continuous period of five years.

<sup>1</sup> any land within the bed of any lake, river or stream; within any naturally-occurring wetland; and/or within 100m of any lake, or 20m of any river or stream (other than the main stem of the Rakala River below Lake Stream).

## 2.8 Recreation/Access

### 2.8.1 Access

Legal access to the pastoral lease is possible via legal roads following the formed Double Hill Road from Double Hill (i.e. from the upstream or western end of pastoral lease and freehold). It does not appear on the maps to follow the formed road on the downstream or Rakaia Gorge end of the property. Section 24 marginal strips (formerly Section 58 Land Act strips) have been laid off either side of Glenrock Stream allowing access to the pastoral lease and the Rakaia River through freehold land.

Access for anglers along the banks of Glenariffe and Double Hill Streams is by local arrangement only. A legal road crosses the far north-western corner of the property starting at the Double Hill Road on Double Hill pastoral lease and ending at the Rakaia River (see topo/cadastral map).

A legal road also follows the approximate line of Glenrock Stream south from freehold land across Turtons Saddle and down Turtons Stream to where it meets the North Branch Ashburton River. This is not an easy line to establish on the ground - it follows neither the stream banks nor the 4 wheel drive track. A similarly impractical legal road comes into the western piece of the Glenariffe POL from the North Branch of the Swin River on Clent Hills.

At the time of agreeing to the POL expiry, public access was negotiated from the Ashburton River up Boundary Stream to the Taylor Range and across Clent Hill Saddle to link up with Double Hill POL (in the future also to be managed by DoC). Once cadastral survey, surrender and gazettal have been completed on Glenrock, access will also be possible from the Double Hill Road near the Redcliffe's homestead and the Black Hill Range.

### 2.8.1 Uses

*Shooting* - The tops of the surrounding ranges are very open and offer little cover for deer or chamois. During the survey none of these wild animals were observed. The lessees have stated that chamois in low numbers frequent the area, but deer are rare. The area is not often used for hunting.

*Tramping/climbing* - the area beyond Turton Saddle and towards the North Branch of the Ashburton River has a sense of remoteness and isolation whilst still being accessible within a short distance of the Canterbury Plains. The terrain on the tops in the expired POL does not provide areas of technical climbing interest but has basins easily accessible from Mt Hutt for heli-skiing. For those wanting to traverse the Black Hill Range, access can be obtained via routes negotiated with the lessees of adjacent Glenrock on land that has been retired and due to be surrendered.

Tramping opportunities exist through Glenariffe via Turtons Saddle, following Turtons Stream to Comyns Hut then Round Hill Creek and over Clent Hills Saddle

and the north branch of the Swin River. The walk down Turtons Stream/North Branch of the Ashburton is very open with numerous river crossings. This currently requires permission from the lessees of Glenariffe to gain access to Turtons Saddle and permission from the lessees of adjoining properties of Double Hill and Clent Hills to go through Round Hill Creek and the Swin, unless you keep to the legal road in the Swin and upper Round Hill Creek. This, however, requires very precise navigation skills and is not a practical route to follow. There are also possibilities of trips down the Ashburton River to Alford Forest if the river is sufficiently low, or a round trip down the North Branch of the Ashburton and return via the Swift and Redcliffe Saddle on Glenrock - again requiring permission from adjacent lessees. Mountain bike access is also possible to the North Branch of the Ashburton River, but is unlikely beyond Round Hill Creek because of the rocky nature of the riverbed.

### *Sports fishery*

The Rakaia River along the property's northern boundary supports a nationally important salmon fishery and regionally important trout fishery. The National Water Conservation Order over the Rakaia River recognises its outstanding natural values as habitat for native and sports fish and wildlife. Two of the Rakaia's principal salmon and trout spawning streams - Double Hill and Glenariffe Streams occur within the lease's boundary. Glenariffe Stream is well known as an early season producer of trophy size brown trout and provides the second most important spawning area in the Rakaia catchment. The location of the NIWA field station and salmon trap near the confluence of Glenariffe Stream and the Rakaia River has contributed to the knowledge of this area's fish and fisheries values.

Current access to the sides of the stream is not formalised but is known locally as being available without gaining permission from the lessee.

## 2.9 Weeds

Weeds are limited - gorse and lupin are abundant on the Rakaia riverbed, spreading onto Glenariffe (including Glenrock Swamp) from the north. Other sources of potential weed spread are *Pinus muricata* (Bishop's pine) and green alder (*Alnus viridis*) planted by the Catchment Board in the stream south of Comyns Stream, as well as willows in Turtons Stream. The Catchment Board also planned to plant Douglas fir. Whether they are still there, has yet to be verified on the ground. Nasella tussock has also been a problem in the past along the Rakaia faces.

## PART 3 - NGO CONSULTATION

A meeting was held with representatives from Federated Mountain Clubs, Forest and Bird, NZ Deerstalkers Association, Environment Centre, North Canterbury Fish and Game Council, 4 Wheel Drive Club and North Canterbury Conservation Board on 5 May 1995 to discuss a number of pastoral leases under tenure review including Glenariffe. The main points discussed in relation to Glenariffe were access to Turton's Saddle and beyond, foot access to Donald Hill and legal access to

retired areas. NC Fish and Game Council left a report with the meeting and stressed the importance of wetland areas around streams and the effect of land use on important spawning streams and the salmon trap. The potential impact of forestry on landscape values was also raised and the need to look at covenants or restrictions on forestry development.

The Fish and Game Council's report outlined the value of Glenariffe to sportsfishermen and gamebird hunters. Their principal management concerns were for access, and any changes that might affect habitat and water quality. They recommended that a marginal strip/esplanade reserve be created and fenced to exclude stock along the Glenariffe and Double Hill Streams with ownership passing to the Crown.

In February 1995 Trout Unlimited sent in a submission outlining the value of Glenariffe as a fishing resource. Their main concerns were "access to fishing waters including the provision of the Queen's Chain and marginal strips" and "maintenance of pristine water quality in the High Country's numerous streams, rivers and lakes".