

BEN LOMOND AND QUEENSTOWN HILL RESERVE MANAGEMENT PLAN



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Prepared by Prophet Infrastructure Asset Management Ltd for Queenstown Lakes District Council

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1.0 INTRODUCTION

The Ben Lomond and Queenstown Hill reserves form the backdrop to Queenstown. They also provide the most readily accessible recreational areas for residents of and visitors to Queenstown.

This plan has been prepared to provide greater certainty about the future use and care of these reserves.

This management plan covers two main areas of land. These are:

1.1 Ben Lomond Reserve.

The major focus of the plan relates to the hills immediately to the west of Queenstown, which include the hill where the gondola and other recreation activities are located. This contains numerous parcels of reserve land including scenic, recreation, and local purpose reserve land.

1.2 Queenstown Hill.

The second area covered by this plan is known as Queenstown Hill and lies to the north of the town centre comprising of two blocks of recreation reserve land.

The plan is structured into three parts:

- | | |
|---|---|
| A | Planning Framework |
| B | Management Goals, Objectives and Policies |
| C | Action Plan |

PART A: PLANNING FRAMEWORK

2.0 STATUTORY FRAMEWORK

2.1 Reserves Act 1977

2.1.1 *Definition and purpose of management plans*

Management plans are required under the Reserves Act 1977 to outline a council's general intentions for use, development and maintenance of its reserves.

The aim of this legislation is to ensure that park development and enjoyment are based on sound principles and that, through involvement, the needs of the public are clearly identified.

Reserve management plans are documents outlining a series of management objectives and policies for the development and operation of individual reserves. Each plan seeks to balance the protection of natural resources with the provision of recreational opportunities that are relevant to the needs of the district.

The process of writing these plans allows the public opportunities to have input and therefore to take part in the decision making which will affect the future of the reserve.

This management plan process is shown below. The plan, once adopted by Council, is kept under continuous review so that it may be adapted to changing circumstances or in accordance with increased knowledge.

The purpose of this plan, therefore, is to embrace the community's vision for the reserves and provide for the use, enjoyment, maintenance, protection and sensitive development of the reserves, in keeping with the existing character of the area and within the limits of Council's resources.

To achieve this purpose, the plan:

- complies with the terms of the Reserve Act 1977
- speeds up subsequent Council decision making by providing a common understanding in the community of how the reserves will be managed;
- simplifies administration by providing clear Council policy statements with regard to the reserves, which are designed to encourage consistency in decision making;
- ensures that these decisions will take into account the broad public interest, rather than being made on an ad hoc basis;
- contains management policies which can be readily understood and implemented;
- is clear about general intentions and attitudes while retaining the flexibility to deal with matters of detail on their individual merits within the general framework;
- provides a procedure for public involvement during its preparation and review.

2.1.2 Management plan preparation process

- 1 Queenstown Lakes District Council decision to prepare / review the Management Plan for the reserve 6 August 2002.
- 2 Public notification of intention to prepare Draft Management Plan and request for submissions (November 2002).
- 3 Submissions reviewed and issues and options summary discussion paper produced.
- 4 Stakeholders and public workshops held 19 March 2003 where issues raised in submissions are discussed and actions refined. General agreement reached about the principal issues that the plan is to address.
- 5 Draft Management Plan produced and approved by Council for release for community consultation
- 6 Draft Plan advertised for public comment for a minimum two month period (CURRENT STATUS)
- 7 Council hearing of submissions (April 2005)
- 8 Modifications to Management Plan resulting from submissions, if appropriate
- 9 Council adopts Final Management Plan and advertises its availability to the public 9 June 2005)
- 10 Plan kept under continuous review by Queenstown Lakes District Council

2.1.3 Land included within this management plan

A total of 462.3685 hectares of land is covered by the plan with Queenstown Hill incorporating 74.4074 hectares and Ben Lomond 387.9611 hectares. The properties are described as follows:

Ben Lomond

Referred to as	Legal Description	SO	Classification	Area (ha)
Water Supply Reserve	Sec 1 Blk VIII Mid Wakatipu SD	5760	Local purpose (Water Supply) Reserve Gazette 1896 page 1697	23.6741
Water Supply Reserve	Sec 2 Blk VIII Mid Wakatipu SD	5760	Local purpose (Water Supply) Reserve Gazette 1896 page 1697	8.2429
Water Supply Reserve	Sec 3 Blk VIII Mid Wakatipu SD	6755	Local purpose (Water Supply) Reserve Gazette 1900 page 1740	15.8232
Water Supply Reserve	Sec 4 Blk I Mid Wakatipu SD	5760	Local purpose (Water Supply) Reserve Gazette 1896 page 1697	41.0756
Water Supply Reserve	Sec 10 Blk I Mid Wakatipu SD	5760	Local purpose (Water Supply) Reserve Gazette 1896 page 1697	39.4746
Water Supply Reserve	Sec 14 Blk I Mid Wakatipu SD	5760	Local purpose (Water Supply) Reserve Gazette 1896 page 1697	16.7692
Water Supply	Sec 19 Blk I Mid	5760	Local purpose (Water Supply)	46.3744

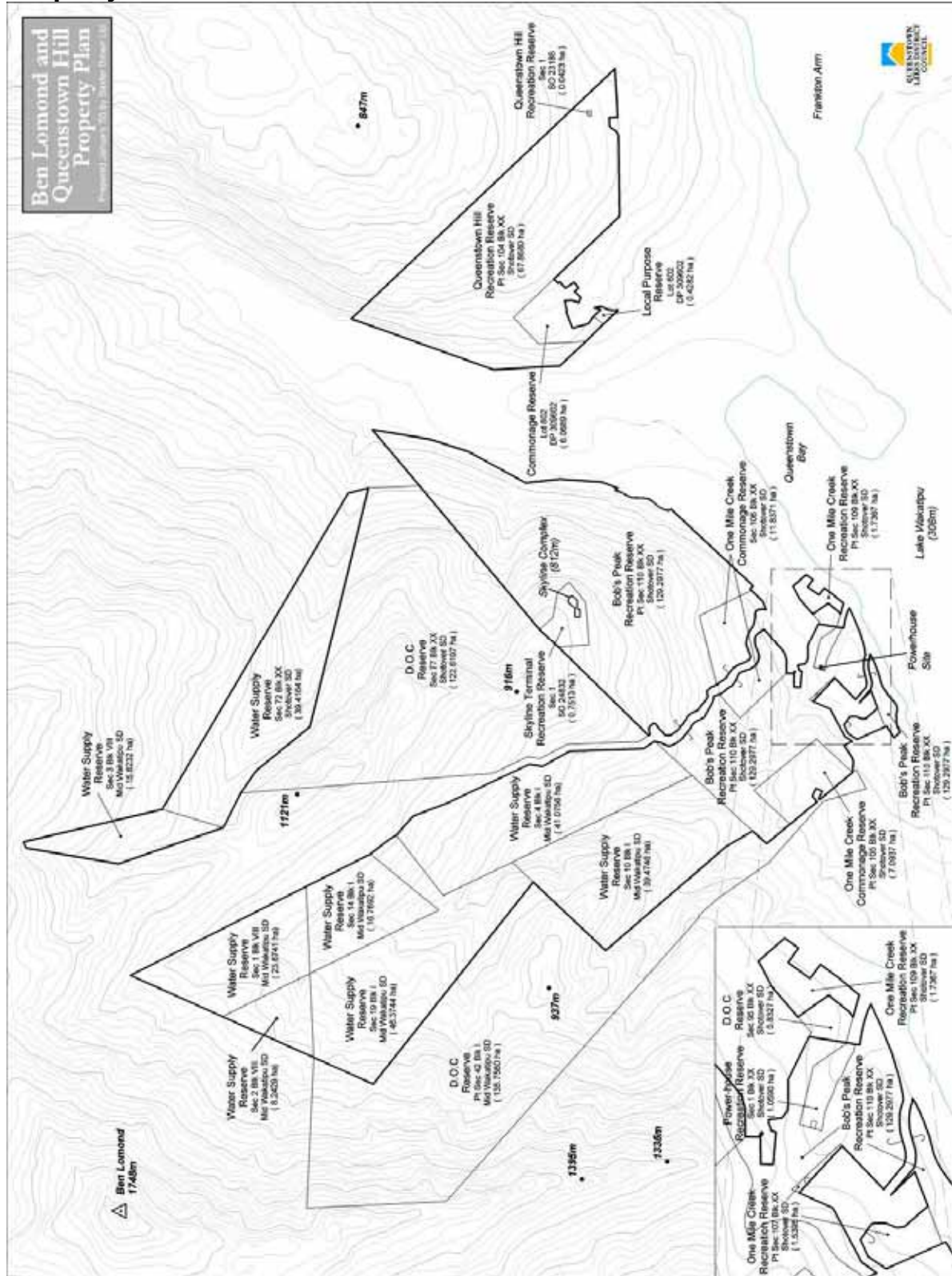
Referred to as	Legal Description	SO	Classification	Area (ha)
Reserve	Wakatipu SD		Reserve Gazette 1896 page 1697	
Water Supply Reserve	Sec 72 Blk XX Shotover SD	6755	Local purpose (Water Supply) Reserve Gazette 1900 page 1740	39.4164
“Bob’s Peak” Reserve	Pt Sec 110 Blk XX Shotover SD	17256	Recreation Reserve under Sec 5 of the Queenstown Vesting and Empowering Act 1971. Gazette 2004 Page 1859	129.2977
Powerhouse Reserve	Sec 1 Blk XX Shotover SD	24350	Recreation Reserve under Sec 5 of the Queenstown Vesting and Empowering Act 1971. Gazette 2004 Page 1859	1.0590
One Mile Creek Commonage*	Pt Sec 105 Blk XX Shotover SD	17256	Commonage Reserve under the Queenstown Commonage Act 1876	7.0937
One Mile Creek Commonage*	Sec 106 Blk XX Shotover SD	17356	Commonage Reserve under the Queenstown Commonage Act 1876	11.8371
Skyline Terminal	Section 1	24832	Recreation Reserve	4.1024
Skyline Terminal	Section 1 and Pt of CT9B/769	22971	Recreation Reserve	0.2654
One Mile Creek Reserve	Pt Sec 107 Blk XX Shotover SD		Recreation Reserve – Queenstown Vesting and Empowering Act	1.5395
One Mile Creek Reserve	Pt Sec 109 Blk XX Shotover SD		Recreation Reserve – Queenstown Vesting and Empowering Act. Gazette 2004 Page 1859	1.7367
Sainsbury Road Reserve	Lot 3 DP19021 Sec 57 Blk I Mid Wakatipu SD		Recreation Reserve. Gazette 2004 Page 1859	0.1792
TOTAL				387.9611

Queenstown Hill

Referred to as	Legal Description	SO	Classification	Area (ha)
Queenstown Hill Reserve	Pt Sec 104 Blk XX Shotover SD		Recreation Reserve. Gazette 2004 Page 1859	70.2965
Queenstown Hill Reserve	Sec 1	23185	Local Purpose (Water Reservoir) Gazette 2004 Page 1859	0.0423
Queenstown Hill Commonage*	Lot 802 DP 306902		Commonage Reserve under the Queenstown Commonage Act 1876	6.0689
Reserve	Lot 602 DP 306902		Local Purpose Reserve (Beautification). Gazette 2004 Page 1859	0.4282
TOTAL				76.8359

* Commonage Land subject to the Queenstown Commonage Reserves Vesting and Empowering Act 1876. These areas are not subject to the Reserves Act 1977.

Property Plan



2.3 Other Planning Documents

2.3.1 Conservation Management Strategy

Two adjoining Scenic Reserves and a Local Purposes Reserve are under the control of the Department of Conservation and therefore are not covered by this management plan.

The Department of Conservation's land is managed under the 'Conservation Management Strategy' (CMS) August 1998, and includes references to the Ben Lomond Scenic reserves.

As the Department of Conservation reserves are effectively contiguous with the QLDC reserves this management plan should generally be consistent with the objectives stated in the CMS.

The relevant objectives from the CMS include:

General Objective for Lakes Zone Landscape

To encourage the protection of the special landscape character and quality of the zone.

General Objective for Lakes Zone Tourism and Recreation

Subject to section 17 of the Reserves Act 1977(recreation reserves) where it applies, to foster the use of conservation resources for recreational enjoyment and allow commercial recreation provided natural and historic values and the quality of recreational experience can be retained.

Objectives for Plant Pest Control

Protection of the most valuable and most vulnerable areas managed by the department, or parts of those areas, from those species of plant pests posing the greatest threat to the area's natural and historic resources and sustainability.

The fulfilment of the legal requirements for plant pest control an annual plant pest operations.

In general for the department to be a "good neighbour" in relation to plant pests on land it administers.

Priorities for Plant Pest Control

Plant pest control priorities will be determined from time to time using the methods outlined above.

Current priorities are gorse control in the Aramoana- Otago Peninsula area to protect low stature herb/marsh communities, gorse control in the Maungaatua area to prevent invasion of tussock grassland, eradication of isolated wilding conifers throughout the tussock grasslands and containment of the large infestations near Queenstown.

Objective for Queenstown

To recognise the value of an extensive protected area system around Queenstown as a basis for the protection of amenity, landscape, natural, cultural

and historic resources of significance to Queenstown and New Zealand and for recreational enjoyment, then to implement and protect that system.

Priorities for Queenstown

The protection and enhancement of indigenous natural resources and recreational opportunities in natural walk- in settings on the higher ground around Queenstown will be priorities in this special place, along with servicing visitor's needs for information.

2.3.2 Queenstown Lakes District Council –District Plan

The objectives and policies of this management plan should be consistent with and support where applicable the objectives and policies of the District Plan. (Note ¹)

The use and management of the reserve needs to take into account the policies and rules of the District Plan.

Relevant objectives from the District Plan include:

4.1 Natural Environment

4.1.4 Objective 1- Nature Conservation values (part)

The protection and enhancement of indigenous ecosystem functioning and sufficient viable habitats to maintain the communities and the diversity of indigenous flora and fauna within the District.

4.2 Landscape and Visual Amenity

4.2.5 Objective

Subdivision, use and development being undertaken in the District in a manner which avoids, remedies or mitigates adverse effects on landscape and visual amenity values.

4.4 Open Space and Recreation

4.4.3 Objective 2 – Environmental Effects

Recreational activities and facilities undertaken in a way which avoids, remedies or mitigates significant adverse effects on the environment or on the recreation opportunities available within the District.

Objective 3 – Effective use

Effective use and functioning of open space and recreational areas in meeting the needs of the District's residents and visitors.

¹ At time of writing the operative District Plan was the *Queenstown-Lakes District Council – PARTIALLY OPERATIVE DISTRICT PLAN (February 2005)*

2.3.4 Parks Strategy

Council adopted a strategy for the management of the district parks and reserves on 18 October 2002.

The vision for the district, with respect to parks and reserves, is:

“To provide an abundance of quality parks for recreation, sport and amenity inter-linked by green corridors providing safe walking and cycling routes while also providing wildlife refuge. The urban communities will have easy access to river, lake and mountain fringes as well as good access to developed parks and reserves”

The strategy classifies the parks and reserves of the district in order to set basic standards of facility provision and set policy with regards the acquisition and development of the park and reserve network.

The strategy identifies a number of issues that require attention. The following issues are relevant for the reserves governed by this management plan.

- Formally name reserves which do not have official names
- Provide signs via the development and implementation of a sign system to cover orientation, directional, regulatory and interpretative signage needs.
- Define and meet service levels for the maintenance of reserves as set by Council
- Recognise, support and manage the efforts of volunteers in the maintenance and management of the parks and reserves.
- Improve footpaths and walkways
- Protect and enhance remnant native forest and regenerating native vegetation where this exists.

4.0 HISTORY

4.1 Pre European history

The Wakatipu, along with other areas in inland Otago, was important to Southern Maori as a source of items such as eels, birds, Ti (cabbage tree), mountain daisy leaves (used for cloaks) and taramea (Spaniard grass) from which a fragrant oil was extracted.

Important settlement sites were at Tahuna (Queenstown), Oterotu (Frankton) and at Tititea (junction of Kawarau and Shotover Rivers). Other village and camping sites in the Wakatipu area have been found at Glenorchy, Bob's Cove, Kingston, Kawarau Gorge, Lake Hayes, Pigeon Island and Mavora Lakes.

The Wakatipu and Wanaka region was typical of the whole of the interior of Te Wai Pounamu. It had some permanent settlements, but was largely a seasonal resource base for highly mobile coastal communities.

No particular settlement or use of the Ben Lomond or Queenstown Hill reserves has been identified, although Queenstown Hill was named *Te Tapu-nui*, a name which signifies intense sacredness, although the reason for this does not appear to be known.

4.2 European history

In 1860 William Rees set up a sheep station in the Wakatipu with his base at Queenstown Bay.

With the settlement of Rees in 1860 land use changed dramatically. While Rees and his colleagues found evidence of Maori habitation they reported that no groups came through after their settlement.

In late 1862 Jack Tewa found gold in the Arrow River and before long there was a gold-rush. The existence of gold in Otago rivers was known to Kai Tahu but, as it had no value to them, it was not collected. However, news of Tewa's find leaked out and Rees was soon inundated by gold-fever struck diggers and his run was declared a goldfield early in 1863 and Rees's licence for Run 356 was cancelled on November 6, 1863.

As the gold ran out in the ensuing years, the Lakes District turned to farming to sustain its economic viability. Tourism had always had a function in the area. People had been coming to the Lakes District simply to admire the scenery since gold was found. Gradually tourism supplanted farming and has probably now become the most important income earner in the basin.

Queenstown Hill Reserve

Herries Beattie spent much time travelling the South and talking to Maori elders regarding the naming of places in Te Wai Pounamu. In Queenstown he noted that Queenstown Hill was named *Te Tapu-nui*, a name which signifies intense sacredness. Yet Beattie does not record why Kai Tahu named Queenstown Hill *Te Tapu-nui*.

With the burgeoning tourism industry people recognised that Queenstown Hill would give excellent views towards the west of Lake Wakatipu without the challenge of climbing Ben Lomond:

An easy and delightful climb is that to the summit of QUEENSTOWN HILL, that young mountain standing 2,958 feet directly at the back of the township. An excellent track marks the way, which zigzags across the face of the bosky hillside, and by taking it comfortably the climber should reach the top in just over an hour. From this coign of vantage a wonderful expanse of lake and mountain scenery is spread out before him, resembling the vista viewed from Ben Lomond, only of a slightly lesser degree. Two picturesquely-situated mountain tarns will also be observed nestling in the indentations of the undulating country.

Wakatipu's Scenic Glories, 1922

Over the next 50 years it became apparent that town was expanding and yet the infrastructure was not growing at a comparable rate. Mayor Warren Cooper's council placed an embargo on the building of hotels in an effort to halt pollution problems. In 1970 the Government of the day ceded an area of commonage land to the Queenstown Council in order that the latter might subdivide it to pay for a one million dollar sewerage scheme.

These days Queenstown Hill is still used as a scenic walking track. In February 2000 the Queenstown Hill Time Walk was opened. Interpretation panels have been placed along the walk which describes the Maori and European history of the area.

Ben Lomond

Beattie records that the mountain Ben Lomond was known by the local Maori as Te-taumata-o-Hakitekura, the eyrie of Hakitekura. They named it this for a girl who sat on the mountain and watched other village girls have swimming competitions. Hakitekura watched from her position for many days and became determined that she could do better. Early one morning she began to swim from the end of Te Karoro (the Gardens) and steered using the silhouettes of Cecil and Walter Peaks. She landed at Refuge Point and lit a fire using the fire stick she had bound tightly the night before. The rocks at Refuge Point still bear the blackness from the soot of the fire and Kai Tahu knew the place as Te-ahi-a-Hakitekura (the fire of Hakitekura). Ben Lomond was given its English name by Duncan McAusland, one of Rees's shepherds.

Early on in Queenstown's history Ben Lomond became a target for adventurous tourists due to its height and relative accessibility. It was quite the done thing to leave Queenstown several hours before dawn, walk to the top of the towering peak and wait for the sun to rise. This practice carries on to this day. In 1885 the walk had become so important that the Borough and County Councils spent the year in intense negotiations regarding signage and track maintenance. In 1916 the *Lake Wakatipu Mail* reported:

It is probable there is no peak of the same height in New Zealand more climbed than Ben Lomond. Every visitor is expected to 'go up Ben' and the few who do not ... miss a great deal

"Bob's Peak" (Cemetery Hill)²

As early as the 1920s, people had considered putting a road up what is sometimes mistakenly referred to as "Bobs Peak". This unnamed hill forms the backdrop to Queenstown and affords magnificent views over Lake Wakatipu and the Remarkables mountain range. In 1961 the late Ian Hamilton formed a steep zig zag road to take advantage of these views. In 1962 he applied to the Queenstown Borough Council for two acres of land on the summit. Many people remember the music and often humorous commentary that came from Ian's loudspeaker system during this period.

² "Bob's Peak" is actually located nearly 5km to the west above the Seven Mile Creek. The hill is also known as Cemetery Hill.

The objective was to run Volkswagen buses to the top of “Bobs Peak” to a chalet, the building of which began in November 1963. It was opened in January 1964 by the then mayor, George Cochrane. The chalet served morning and afternoon teas and light meals, and was an instant success. People could take the bus up, but if they walked, they received a certificate for doing so. It was not uncommon for the chalet to host 500 visitors a day.

Skyline Enterprises Limited was formed as a private company in 1966 with the purpose of building an aerial gondola from Queenstown up to the chalet. This project was first planned 1964, and the council gave its initial blessing in 1965. However, the venture was considerably delayed when the company and the council could not agree on rental fees for land to be used by the terminal buildings and for car parking, and the government of the day refused to grant an import license for the gondola machinery. Both issues were eventually resolved, and construction began in August 1966. The first passengers travelled up to the chalet on 3 November 1967. At the same time, Skyline Enterprises expanded the restaurant and was granted a very rare (in those days) liquor license. The restaurant consequently was hugely popular during the 1970s, and Sunday night dining became an institution amongst the locals.

The One Mile

Considering the One Mile stream is rather small it has served Queenstown very well on several occasions.

With the influx of miners, business people and families into Queenstown wood became a precious commodity, and there was not much to be had in the area. At the northern end of the lake there was a large, mature beech forest which was quickly pounced on by the wood hungry populace. Closer to Queenstown, though, there was the One Mile Stream. Very quickly this picturesque gorge was completely denuded to supply the citizens of Queenstown with firewood and framing.

Paradoxically Queenstown, from the 1860's to the 1880's, had a water supply problem. All had to bucket their water from the lake or Horne Creek. This posed problems not the least of which was pollution. As early as 1869 the Queenstown Borough Council formed a subcommittee to investigate a water supply. There were wrangles with a company who wanted to establish a woollen mill at the One Mile. After going to arbitration, arranging overdrafts and generally frantically negotiating with the mill company it was 1881 and Queenstown still did not have a reticulated water supply.

In January 1882 a local grocer, in an attempt to defraud his insurance company, set fire to his Ballarat Street shop. The resulting fire destroyed much of the north side of the street and exposed glaring inefficiencies in the volunteer fire brigade's equipment (the appliance didn't work and there was no spare). As there was no water supply to the town the townspeople were forced to fight the fire using the bucket chain method.

The disaster sharpened everybody's thinking and when, a year later, the Council decided to ask ratepayers to sanction a loan of £3000 to meet the estimated cost of installing a water supply from the One Mile Creek the result was 76 votes for and 10 against.

On the 10 November, 1884, Queenstown's reticulated water supply came into operation. The mayor was presented with a gold pendant in the shape of a water key from the contractors along with a testimonial and a purse of fifty sovereigns on behalf of the citizens of the town.

The scheme provided water at a pressure of 110 lbs. per square inch, sufficient pressure to enable the use of pelton wheels to drive a number of industrial plants. Julia Eichardt was using one to provide electric lights throughout her hotel in 1886.

After the water supply was well and truly established the attention of the Queenstown Borough Council turned to supplying Queenstown with hydro-electricity. The proposal was initially put forward at Council in 1892. However as the Council had just borrowed £3000 pounds for the water supply, they decided that the ratepayers would not be happy to pay the estimated £2000 to £3000 needed for the project.

Queenstown lost sight of hydro-electricity and instead turned to acetylene gas. Earnslaw Park played host to the acetylene plant from 1910 until its explosive demise on the 23 June 1923. It took just one year, three months and £12,000 for the One Mile Hydro-electric scheme to come on line.

The One Mile Hydro-electric scheme continued to supply Queenstown with electricity until December 1966 when the Otago Central Electric Power Board decided that the generating equipment was too old and too small to be an asset any longer.

Recently there has been intense interest in restoring the power house and the One Mile Powerhouse Restoration Trust has been formed. Several pieces of the original plant have been sourced from around the country.

5.0 NATURAL VALUES

A complete and detailed description of the reserves natural values is provided in the ecology report in Appendix One. The following is a summary of that report.

5.1 Geology

Most of the area is underlain by finely foliated schist rock. This is a relatively soft, erodable rock as indicated by the deeply incised streams. The whole area has been glaciated in the past and the affect of this can be seen in the steep south face of “Bob’s Peak”, a truncated spur of Ben Lomond, and in the ice rounded topography of Queenstown Hill and spurs of Ben Lomond below about 1200 m. The three creeks draining these south faces have all carved deep valleys and have cut narrow gorges through the soft rock of the lower slopes.

5.2 Vegetation

Only a small sample of the original, postglacial vegetation of Ben Lomond remains today and most of this is found on the upper levels of the mountain. The postglacial vegetation here would have comprised beech forest with broad-leaved species in the damper gullies and along the lake edge. A few podocarps such as Matai, Hall’s Totara and Mountain Toatoa may have also been present. But by the time William Rees arrived to take his sheep to the head of the lake, at least some of this forest had gone, burnt by natural or Maori fires and aided by a fire lit by Rees himself (Duncan 1964).

Today remnant beech forest continues to occupy all three of the steep-sided creek beds where it has been protected from fire, and it also covers some of the upper slopes of the One Mile Creek catchment to about 1060 m, the original tree line. In places, the beech forest extends almost to lake level. Small patches of mountain beech also occur on the south and Southwest faces of “Bob’s Peak”. Above this, tussock grassland dominates with a narrow band of sub-alpine shrubland in places.

Almost surrounding the beech forest in places and covering much of the lower slopes right down to the lakeshore is tall Douglas Fir. Damp gullies on the south face of “Bob’s Peak” contain patches of Sycamore while larch is prominent on west faces. Many other exotic species and weed plants cover the lower slopes, particularly where logging has occurred.

Most of the reserve area on the Southwest end of Queenstown Hill has a similar plant cover to that on lower “Bob’s Peak”. It has a wide range of exotic trees and shrubs but dominated by Douglas fir with also Radiata Pine, Lawson species and Silver Birch.

5.2.1 Beech Forest

Mountain beech forest occupies some of the upper slopes and the sides of One Mile, Two Mile and Bush Creeks with a few patches on the face of “Bob’s Peak”. The forest of the spurs and dry valley sides has a sparse understorey. In the damper gullies and nearer the streambed, the forest is more diverse. Red Beech occurs sporadically on warmer sites and where the soil is deeper. The opening up of light gaps adjacent to the beech forest patches along the Skyline road has allowed some regeneration of mountain beech with young trees now present in places.

5.2.2 Subalpine Shrubland

In places such as the head of One Mile Creek, there is a narrow band of shrubland. Subalpine shrubs also occur on cold, rocky slopes and frequently in the tussock grassland.

5.2.3 Tussock grassland

Above the treeline, grassland takes over as the vegetative cover. At lower altitudes there is much introduced grass with brown top and sweet vernal prominent and numerous shrubs including the introduced sweet brier. The large snow tussock occurs as scattered plants, but the introduced plants reduce in number and importance higher up until at about 1000 m there are few or none at all and narrow-leaved snow tussock dominates. Many small herbs, grasses and shrubs also grow amongst the tussock.

5.2.4 Exotic communities of the lower slopes

During the 1940's and 50's as part of Arbour Day activities, school children planted trees along the foot of "Bob's Peak" and Queenstown Hill. The present mix of large trees on both hills is the result of these plantings and of subsequent natural spread from seedlings. Trees such as Douglas Fir, Larch and Sycamore in particular have found the conditions ideal and have become prolific in places and still spreading. An aerial drop of seed assisted the spread of Douglas Fir in 1964. At this time trees still only sparsely covered the hillsides above Queenstown with grasses dominating.

Today all the lower slopes of the reserve land except for the creek sides are covered in introduced trees, shrubs and many large herbs.

5.2.5 Douglas Fir (*Pseudotsuga menziesii*)

From the lakeshore up to as high as the Ben Lomond Saddle Douglas Fir are now growing and are gradually increasing their area at the expense of both the native tussock and shrubland and also the native beech forest. They have the potential to attain much higher altitudes than mountain beech and could eventually cover the whole of Ben Lomond and Queenstown hill, considerably reducing the biodiversity and interest of both areas. Their seedlings will grow in lower light conditions than beech seedlings and can infiltrate mature beech forest so that they not only prevent natural beech regeneration around the edges but also will compete with the mature trees and reduce their vigour and longevity. Along the upper edges of the Douglas Fir invasion can be seen dead and dying native plants that have succumbed to the reduced light conditions.

5.3 Fauna

The bird life of the reserves is quite varied with many introduced birds such as, thrush, starling yellow hammer, goldfinch, green finch, chaffinch, redpoll, skylark and hedge sparrow. Some of these species are mainly found in open land and grassland, others such as blackbird and thrush are found in most habitats including exotic and native forest and shrubland. Native forest and shrubland birds found in the area include silvereye, grey warbler, fantail, brown creeper and occasionally yellow-breasted tit.

Open country birds of this area include the pipit, while Australasian harrier and New Zealand falcon are frequent visitors.

Tui and New Zealand pigeon may be occasional visitors and shining cuckoo are likely visitors over the summer months.

A generally unseen but important part of the ecology of the area is the invertebrates. Invertebrates not only provide food for the birds but also break down plant material to create an organic layer and provide plant nutrients, aerate the soil and pollinate flowers.

Although no comprehensive study has been completed on Ben Lomond, numerous species of moths, butterflies, flies, spiders, beetles, land snails, grasshoppers, caddis and others groups of insects have been recorded from here and around the district.

The McCann's skink and common Otago gecko are probably present on rocky parts of the area, the former may be seen scuttling for cover on sunny days. The latter is nocturnal in habit. Animals present in the area but generally in low numbers include possum, stoat, hares and goats. Mice and ship rat will be present throughout but are nocturnal and seldom seen.

5.4 Ecological Significance

The ecological significance of the reserves lies in the retention and preservation of the existing natural values. Visitors to Queenstown can see New Zealand beech forest and in particular, subalpine shrubland and montane tussock grassland all within easy walking distance from town or the gondola. The walk up One Mile Creek takes you up through diverse beech forest to the subalpine and alpine zones a walk emulated by few if any other town or city in New Zealand. This vegetation can be likened to a microcosm of the mountain vegetation of the South Island and is generally representative of our montane forests and tussocklands.

All natural values and the existing biodiversity in the reserves are threatened by the spread of wild conifers and will eventually be lost without intervention.

The Wakatipu Wilding Conifer Strategy (2004) addresses Council response to wilding conifer control and recommends the containment of Douglas Fir and Larch above a containment line established within the adjoining Department of Conservation scenic reserve.

5.5 Landscape significance

5.5.1 Landscape Description

Ben Lomond and Queenstown Hill are steep mountain blocks located on the north-eastern and north-western boundaries of the town centre of Queenstown. The slopes of both mountains have been scoured by past glacial activity leaving behind features of severe grinding and scouring on their rocky slopes.

Ben Lomond Reserve has a south-easterly aspect and is 1718m at its peak. It is a steep sided mountain landscape with steep gullies and a rocky peak. Queenstown Hill is south-westerly facing and is 907m at its peak, with a rounder, roche mountonee form (it is less dramatic than Ben Lomond). The peaks of both mountains are outside of the boundaries of the reserves. However the tussock covered peak of Ben Lomond can be seen from the town centre.

Both reserves are covered predominantly in Douglas Fir. The conifers on both reserves appear to be approximately the same age, forming a contiguous vegetative cover and texture. Queenstown Hill also has pockets of larch at the lower levels adjacent to existing urban development.

The upper slopes and north facing slopes of Ben Lomond, Queenstown Hill and the surrounding mountains are predominantly, tussock grassland covered. Some of the tussock grassland areas come within the reserve boundaries of Ben Lomond.

There is no visual distinction between Ben Lomond and the surrounding mountains. The Douglas Fir and tussock vegetation is predominant from Gorge Road to the vicinity of Moke Lake, albeit not continuously.

Queenstown Hill Reserve is part of a separate landform that includes Sugar Loaf, Ferry Hill and Lake Johnson.

The reserves form part of the larger glacial landscape of the immediate Lake Wakatipu edge, and therefore have to be considered as part of that larger landscape.

Ben Lomond, Queenstown Hill, the small peninsula that contains the Queenstown Gardens and Lake Wakatipu enclose and define the town of Queenstown. The dramatic scale and texture of craggy mountains, and dynamics between high mountains, Lake Wakatipu and urban development in the narrow strip of land between lake and mountain gives Queenstown a distinctive alpine character. The town is subordinate to its mountain setting.

5.5.2 Landscape Values

The landscape values of the Ben Lomond and Queenstown Hill reserves include:

- They are geologically and topographically dynamic components of the landscape – steep sided, high mountains enclosing a small town. The mountainous backdrop gives Queenstown its alpine character, which is distinct from the 'browns' that typify the Central Otago character, and other pastoral alpine areas in New Zealand.
- They form the highly visible and dramatic setting for Queenstown, which is memorable because of the dynamics between the mountains and lake, and the contrast between the tawny brown landscape of the upper altitudes and the deep green of the Douglas Fir.
- Ben Lomond and Queenstown Hill are tangible evidence of the glacial processes that formed the Wakatipu basin and their significance is enhanced by their proximity to an urban environment.
- They possess transient values that include changing light during the day and seasonal change during the year particularly when the peaks and lower levels are covered in snow in winter.
- Their values are shared and recognized, as they form an impression on visitors and locals alike of the 'alpine' landscape. They are the stereotypical alpine landscape of European culture.
- Historical associations have given rise to the vegetative cover that gives the cultural landscape its significance. Although a cultural, historic landscape, the conifer forests have become iconic – part of the local and visitor's identification/association of an alpine resort, as much as the schist stone and Lake Wakatipu.

5.5.3 Conclusion

From a landscape perspective the Douglas Fir vegetation of Ben Lomond and Queenstown Hill is important, providing a forested backdrop to Queenstown.

The Douglas Fir backdrop is also unique to Queenstown and this visual value forms part of the shared and recognised backdrop of the Queenstown town centre.

In regards to the issue of the possible removal of the Douglas Fir, and revegetation with indigenous plant cover, although ecologically appropriate, this would cause a discontinuity of texture and colour, and therefore a change in the contiguous amenity of the mountain backdrop.

Any change to vegetation will need to be carefully managed and staged to ensure amenity values are maintained.

6.0 ISSUES FOR USE AND DEVELOPMENT

6.1 Present use

6.1.1 Leases, Licenses and Concessions

There are a number of leases and licenses issued to various parties on the Ben Lomond Reserves. The most significant of these are those related to the tourism related activities on Bobs Peak, namely the Gondola and associated Skyline operations. Other activities of lesser impact include parapenting, mountain biking and telecommunications.

There is one lease on the Queenstown Hill Reserve to enable access to a commercial recreation climbing activity "Via Ferrata" adjacent to the reserve on private land.

A full list of current leases, licenses and concessions that have been granted by Council with the approval of the Minister of Conservation where such approval is required is provided in Appendix Two.

6.1.2 Economic Values

The economic values arising from the use of the reserves are extremely significant. These values arise from the operation of the tourism-focused facilities located on Bobs Peak. In particular the Gondola is a Queenstown Icon and a significant part of the overall tourism infrastructure in the area. This facility and a number of the spin-off activities are only possible due to the unique topography provided by the reserve, immediately adjacent to the town centre.

In addition the landscape backdrop that Ben Lomond in particular and also Queenstown Hill provide for the town forms part of the landscape scenery for which the town is renowned.

Other public recreation opportunities on the hills such as walking, climbing and native bush areas, all within easy reach of the town centre, also add significantly to the tourism values of the town.

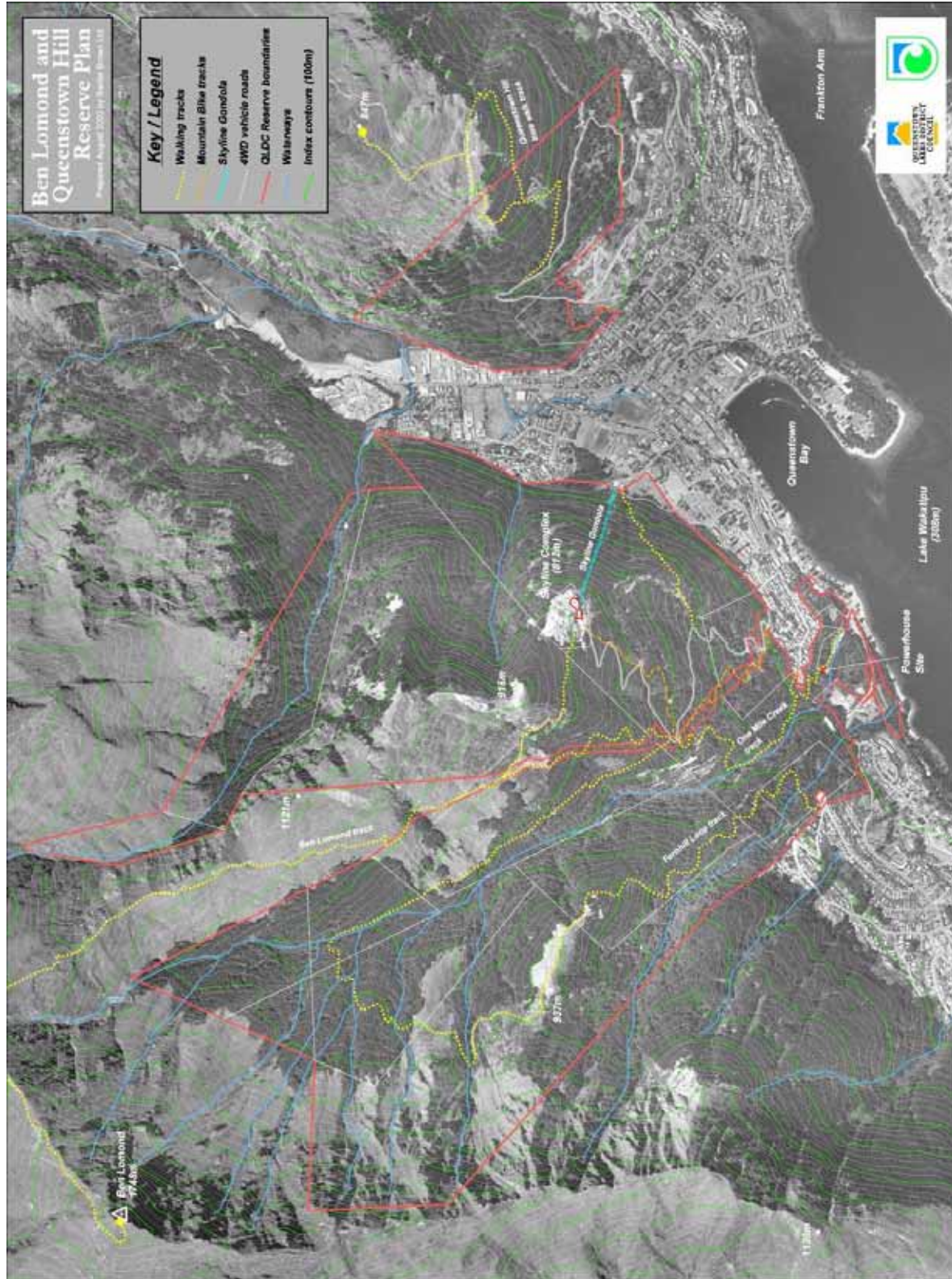
6.2 Physical constraints

The primary physical constraint is created by the topography of the reserves. The steepness of many of the slopes limits their use and creates significant practical problems of access for managing the site, particularly in regard to managing the spread of wilding pines and the possibility of restoring native vegetation cover. However it is this topography that also creates the very high values associated with this reserve.

6.3 Community constraints

Due to very prominent nature of these reserves, significant change to their use and /or character is likely to be met with strong resistance from the community.

Recreation facilities



PART B: MANAGEMENT OBJECTIVES, GOALS AND POLICIES

7.0 OVERALL OBJECTIVES

The Overall Objectives for the management of the Ben Lomond reserves are:

- 1. Protection of the high quality scenic landscape values.**
- 2. Protection of the reserves natural quiet values**
- 3. Provision for recreation and tourism activities, including commercial activities that do not adversely impact on the landscape, recreation and natural values.**
- 4. Enhancement of the reserves biodiversity, through control of wilding pine spread and targeted native bush revegetation.**
- 5. Enhanced opportunities for low impact recreation activities, such as walking and mountain biking, through the co-ordinated maintenance, enhancement and development of walking and mountain biking trails information and facilities.**
- 6. Harvesting of exotic timber species to the extent that amenity, landscape and recreational opportunities (including safety of existing facilities) are not unduly compromised.**

The Overall Objectives for the management of the Queenstown Hill reserves are:

- 1. Protection of the high quality scenic landscape values.**
- 2. Protection of the reserves natural quiet values**
- 3. (a) Provision of non-commercial recreation and tourism activities that do not adversely impact on the landscape, recreation and natural values, and
(b) Provision of small scale commercial rock climbing and abseiling activities in association with existing activity on adjoining private land**
- 4. Enhancement of the reserves biodiversity, through control of wilding pine spread and targeted native revegetation.**

- 5. Enhanced opportunities for low impact recreation activities, through improvement of tracks and promotion.**
- 6. Harvesting of exotic timber species to the extent that amenity, landscape and recreational opportunities are not unduly compromised.**

8.0 VISION

Vision Statements

BEN LOMOND

To protect and enhance the natural values of Ben Lomond Reserve and provide opportunity for compatible recreation activities.

QUEENSTOWN HILL

To protect and enhance the natural values of Queenstown Hill Reserve and provide opportunity for generally casual low impact recreation activities.

8.1 Statement of values

8.1.1 Effective Management

The Management of the reserves contained within this plan are under the control of the Queenstown Lakes District Council, with several adjoining areas of scenic reserve managed directly by the Department of Conservation.

Given the contiguous nature of the reserves compounded by the cross boundary issues that effect management, close coordination is required between the QLDC, DOC, Wakatipu Trails Trust and adjoining landowners.

Consideration should be given to a review of reserve boundaries, classifications and management to ensure effective management.

The Ben Lomond reserve contains several tourism related commercial leases, which in addition to providing significant income also provide benefits of recreation opportunities and economic benefits to the District. Any changes to management should include consultation with lessees and the wider public.

The reserves also include significant exotic forest areas, which properly managed, may yield returns which assist in the management of reserves by providing funding to offset the cost of wilding control, revegetation and providing recreational opportunities and facilities.

The Queenstown Lakes District Council must decide how best to manage these resources over time to provide a source of income to assist the development and maintenance of this and other reserves in the District.

8.1.2 Biodiversity

Biodiversity is an important value in terms of ecological benefits and integrity. The management options for biodiversity also have an impact on the reserves landscape values.

The dominant vegetation cover on both reserves is Douglas Fir, which due to its prolific seeding and rapid establishment limits the indigenous forest and its spread into the tussock grasslands on the upper slopes is an ongoing threat. However, it provides values in terms of land stability, potential economic return, limits (other) weed problems, and its strong landscape value as part of Queenstown's alpine scenery.

There are also pockets of larch and other deciduous exotic trees at the lower levels adjacent to existing urban development.

Ben Lomond also has small remnant areas of indigenous forest, mainly beech, in the gully areas.

The upper slopes and north facing slopes of Ben Lomond and Queenstown Hill are predominantly tussock grassland covered, with some mixed sub alpine vegetation.

8.1.3 Recreation

The Reserves are a significant recreation resource in terms of land area, proximity to Queenstown and topography.

The Ben Lomond reserve already has a number of established commercial recreation activities, which rely on the reserves steep topography and height together with the views it provides over the Wakatipu Basin. These activities are primarily aimed at the tourism sector.

Less formal recreation opportunities are also provided through the reserves walking and mountain biking tracks, which while having a high tourist use, are also an important resource for the local community.

Queenstown Hill has an established popular walkway known as the Queenstown Hill Time Walk.

Rock climbing on the steep exposed rock faces on the western side of the hill is also becoming popular, with the recent development of a 'Via Ferrata' rock climbing operation on land adjoining the reserve with access provided through the reserve. It is likely that this activity could be expanded into the Council reserve in time. While the activity is commercial in nature, it is otherwise consistent with the quiet values of the reserve and has little impact on other reserve users.

Given the close proximity of the Ben Lomond and Queenstown Hill reserves to Queenstown and the high tourism activity associated with the area, it is likely that these reserves will come under future pressure for use by commercial tourism operators for the establishment of recreation developments and activities. The management plan provides a policy and management structure for addressing such pressures.

8.1.4 Landscape

The reserves provide very high landscape values as they are geologically and topographically dynamic components of the landscape – steep sided, high mountains enclosing a small town. The mountainous backdrop gives Queenstown its alpine character.

They form the highly visible and dramatic setting for Queenstown, which is memorable because of the dynamics between the mountains and lake, and the contrast between the tawny brown landscape of the upper altitudes and the deep green of the Douglas Fir.

Ben Lomond and Queenstown Hill are tangible evidence of the glacial processes that formed the Wakatipu basin and their significance is enhanced by their proximity to an urban environment.

They possess transient values that include changing light during the day and seasonal change during the year particularly when the peaks and lower levels are covered in snow in winter.

Historical associations have given rise to the vegetative cover that gives the cultural landscape its significance. Although a cultural, historic landscape, the conifer forests have become recognised as part of the local and visitor's identification/association of this alpine resort.

9.0 GOAL 1: EFFECTIVE MANAGEMENT

The Ben Lomond and Queenstown Hill reserves are a collection of many adjoining reserves which have been grouped together for the purpose of producing this plan, to provide a comprehensive approach to managing the area.

The reserves have a number of different classifications under the Reserves Act. It is important that these classifications are taken into account when managing and making decisions on the use of the reserve, as each classification has a different purpose and restrictions on what can and can't be done on that particular reserve.

The reserve classifications are Scenic, Recreation, Local purpose or Commonage reserve set aside under the Commonage Act 1876.

A brief description of the purposes, uses and restrictions are as follows:

Recreation Reserve	Purpose is to provide areas for recreation and sporting activities, and for the protection of the natural environment and beauty of the countryside, with emphasis on the retention of open spaces and on outdoor recreational activities.
Local Purpose Reserve	Purpose of providing and retaining areas for educational, community, social, or other local purposes as may be specified in the Gazette notice. Where scenic, historic, archaeological, biological, or natural features are present on the reserve, those features shall be managed and protected to the extent compatible with the principal or primary purpose of the reserve:
Commonage Reserve	Authority can manage the land in such a manner as it thinks the purposes for which the land was granted could best be carried out.

Section 41 of the Reserves Act requires considerable public input into the content and intent of the management plan. It also requires the management plan to be under 'continuous review' so that it is 'adapted to changing circumstances or in accordance with increased knowledge'.

This means that while the management plan is the key management document, the Queenstown Lakes District Council must remain aware of changing circumstances of the reserve and be prepared to apply flexibility to ensure the goals and policies remain effective and relevant.

The Queenstown Lakes District Council has the authority to lease areas of the reserve under certain circumstances to various organisations.

Before any lease of a recreation reserve is granted, it must be subject to public consultation either by public notification of each proposed lease, or preferably, by the consultation process involved in the preparation of a management plan unless the lease is already contemplated by this plan.

Large areas of the reserves are covered in exotic pine forest (predominantly Douglas Fir). The plantation forest provides income to Queenstown Lakes District Council, which is used to offset some of the cost of reserve maintenance in the wider district.

The Pine forest also provides other benefits including land stabilisation, weed control and landscape values. It does however provide a significant seed source for further wilding pine in the Wakatipu Basin. Careful management of forest logging activities is required to minimise adverse landscape impacts, and disruption to other activities on the reserve.

The Council notified the proposed exchange of reserve land on Queenstown Hill with the Department of Conservation in September 2004. The proposal is for Council to transfer 7.1 hectares of fee simple and local purpose reserve to the Crown being Lot 802 DP 306902, Lot 602 DP306902 and Part Section 142, SO22124 in exchange for 7.1 hectares of recreation reserve being a portion of Part Section 104 Block XX Shotover Survey District. The land transferred to the Crown is proposed to be managed as recreation reserve whereas the land transferred to the Council is proposed to be developed for residential purposes.

9.1 Objective: Effective Management and Administration

- 1 Effective management of the Ben Lomond reserve and adjoining reserves between the Queenstown Lakes District Council and Department of Conservation to maintain, protect and enhance its core values in accordance with the objectives and policies of this management plan and the Conservation Management Strategy
- 2 To manage the Queenstown Hill Reserve to maintain, protect and enhance its core values in accordance with the objectives and policies of this management plan. In particular, to manage the reserve for generally non-commercial recreational activity and as a place to escape the busy town for quiet reflection and enjoyment.

9.1.1 Policies

- 1 The Queenstown Lakes District Council will be primarily responsible for the maintenance and management of the Queenstown Hill and Ben Lomond reserve areas they have responsibility for, as defined in section 2.1.3.
- 2 To initiate a review of reserve classifications, administration and boundaries with the Department of Conservation to ensure the effective management of all reserves in the Ben Lomond and Queenstown Hill area.
- 3 That subject to any changes in administration, the policies contained within this management plan should generally be applied to the Ben Lomond and Queenstown Hill reserve land administered by the Queenstown Lakes District Council until such time that this management plan is reviewed.
- 4 The Queenstown Lakes District Council will implement a capital works programme, based on the action plan in this management plan and as funds permit, as determined by the Council's Annual Plan.
- 5 To revise the management plan subject to the outcome of the proposed land exchange between the Council and the Crown.

9.2 Objective: Plan Review

1. To review the plan on a regular basis to ensure it remains current and relevant.

9.2.1 Policies

- 1 To keep this management plan under 'continuous review' and to formally review it at least every 10 years.

9.3 Objective: Occupation Agreements

- 1 To issue occupation agreements to commercial operators and other users of Ben Lomond reserve land which are compatible with the values of the reserve and support the long-term objectives for reserve development and use.
- 2 No commercial occupation agreements for Queenstown Hill except for:
 - essential services
 - existing leases or licences as detailed in this plan
 - rock climbing and abseiling on the Gorge Road faces

9.3.1 Policies

- 1 Commercial users and public utility activities will be permitted within the reserve where they are compatible with or do not unduly affect its primary purpose, and recreation, landscape, and biodiversity values.
- 2 Commercial users of the reserve, and public utility activities, will require a concession (lease, licence, permit or easement under Section 54 of the Reserves Act 1977), or a formal agreement under Section 53(f) of the Reserves Act 1977, where a significant commercial activity is involved and/or it is considered to impact upon the reserve's primary purpose or its recreation, landscape, or biodiversity values.
- 3 Applications for use of the reserve for commercial purposes or for public utilities will be considered by the Queenstown Lakes District Council, who will consider the appropriate form of concession (a lease, licence, easement or permit) and appropriate level of consultation..
- 4 The costs associated with processing and advertising an application for an occupation agreement will be determined by current Council policy.
- 5 The Queenstown Lakes District Council will review all leases (existing and future) as they expire or renewed to ensure their continued compatibility with this reserve management plan.
- 6 New commercial motorised recreational use of the reserves will not be permitted i.e. motorbikes, farm trikes, four wheel drive vehicles or micro-light launching or similar powered flight activities.
- 7 To permit the development of a commercial thermal pool complex on the reserve below the Heritage Villas in the area below the tennis courts. Any lease will be subject to the lessee obtaining all necessary resource consents and satisfying the Council that the building design, landscaping and site requirements (facilities, roads and walkways, parking, servicing etc) can be accommodated on the site whilst providing protection and

maintenance of mountain and lake views from adjoining property owners and with minimal impact on existing recreational users.

- 8 To provide a lease to a suitable club for the operation, care and maintenance of the Petanque Terrain
- 9 To permit concessions for limited commercial rock climbing and abseiling operations on the faces above Gorge Road within the Queenstown Hill reserve subject to the proposed lease/licence being notified in accordance with the Reserves Act 1977.
- 10 Helicopter landings will be restricted to those required for reserve management requirements (such as wilding pine control, forestry operations, search and rescue and fire control) and landings at the helicopter landing pad adjacent to the Skyline Gondola Terminal for tourism purposes. These landings will be subject to helicopter operators having obtained a licence to land from the QLDC and complying with the following conditions:
 - only one helicopter to be on the helipad at any one time
 - no helicopter is to make an approach to the helipad or operate over the reserve while the pad is occupied by another helicopter
 - That the use of the helipad be limited from 10 a.m. to 7:00 p.m. daily
 - that the flight path to the helipad be such that flying over the urban areas of the District be prohibited
 - That scenic flights originating from and returning to the helipad be prohibited
 - That operators pay a licence fee as set from time to time by the QLDC.

The Council will continue to monitor the effects of helicopter landings at the Skyline Terminal and may impose limits on the number and frequency of flights via the licences issued.

9.4 Objective: Partnerships

Effective partnerships with private or public organisations that assist in achieving the objectives of this management plan.

9.4.1 Policies

- 1 The Queenstown Lakes District Council will seek to identify and work co-operatively with any organisation where such partnership results in an effective method to assist in achieving the goals and objectives of this management plan.
- 2 To work in partnership with the Wakatipu Trails Trust regarding the development and implementation of the trail network for Ben Lomond and Queenstown Hill as identified in the Wakatipu Trails Strategy.

10 GOAL 2: ENHANCED BIODIVERSITY

Both reserves are covered predominantly in Douglas Fir. The conifers on both reserves are of a similar age, forming a contiguous vegetative cover. There are also pockets of larch and other deciduous exotic trees at the lower levels adjacent to existing urban development. Ben Lomond also has small areas of indigenous forest, mainly beech, in the gully areas, which are infested to varying degrees by Douglas Fir.

The upper slopes and north facing slopes of Ben Lomond and Queenstown Hill are predominantly tussock grassland covered, with some mixed sub alpine vegetation.

Due to the significant landscape values that the current vegetation cover provides, this management plan does not propose a significant change to the biodiversity balance of the reserves. Rather the emphasis is on enhancing the current values through:

- sustainable production forestry management which minimises adverse amenity effects;
- protection, enhancement and to a limited degree, expansion, of the indigenous beech forest in targeted areas; and
- the control of wilding pine spread in the tussock grasslands.

In addition to maintaining (and enhancing) the landscape values, this approach is considered the most desirable as it is practically achievable, the cost is not significant, and revenue from the production forestry is maintained.

Target areas for indigenous forest enhancement would include:

- 1) Gully areas (existing native bush)– active control of wilding's and other weed species together with enhancement planting and expansion of these areas with new plantings on accessible terrain.
- 2) High use areas - such as along walking tracks and in the vicinity of the gondola facilities and easement where a strip or corridor of natives could be established
- 3) Around the lower boundaries of the reserve, where access and native plant establishment is likely to be easier.

10.1 Objective: Forestry Management

1. Management of exotic forest to recover merchantable timber where amenity can be improved and recreational opportunities and indigenous vegetation enhanced.
2. To ensure the logging operations minimise impacts on landscape and recreation values and existing facilities.
3. To ensure the safety of the public and other facilities on the reserve

10.1.1 Policies

1. To prepare a detailed forestry plan by 30 June 2006 that establishes the following management zones:

- Recreation Forest – zone is managed to provide for recreational opportunities. Harvesting techniques utilised achieve a high level of amenity and protect the quality of recreation experience and activity such as walking and biking.
 - Production Forest – zone is managed to maximise production values while maintaining continuous canopy cover to ensure a forest backdrop to Queenstown is achieved.
 - Beech revegetation – zone is protected and actively maintained to promote beech regeneration and revegetation including the control of invasive weeds and wilding conifers where such control will enhance revegetation.
 - Amenity Forest – zone is managed to maximise amenity value including continuous canopy cover, autumn colour and other arboriculture or horticultural features
 - Sub-Alpine zone – zone is managed to exclude wilding conifers, control wilding conifer spread and protect the open tussock and indigenous sub-alpine vegetation.
 - Control zone – zone is managed to exclude wilding conifer spread and regeneration for the purposes of utility protection or for the conversion of one zone to another over a period of time (for example from production forest to beech revegetation)
 - Gondola Zone – zone is managed to ensure safety of gondola operation whilst maintaining amenity of forest surrounding gondola and minimising the visual effect of the gondola line.
2. The forestry plan will also address the following requirements:
- Minimise any risks to commercial facilities and operations on the reserve that may arise during forestry operation; through effective consultation and agreement with lessees on the reserve that are affected by forest areas.
 - To minimise any risks to the public by:
 - a) Ensuring logging is carried out in a timely manner before any trees are likely to become unstable.
 - b) Closure of areas of the forest to public access during forestry operation, in areas where the public normally have access. Such closure to be publicly notified.
 - c) Erection of warning signage in areas that the public is likely to be present.
3. The forestry plan will be reviewed every three years

10.2 Objective: Indigenous vegetation

The natural flora and fauna is to be protected and enhanced. In particular the protection of the tussock grassland and sub-alpine vegetation and the protection and extension of beech forest is to be encouraged.

10.2.1 Policies

1. To identify existing areas of native beech forest through the Forestry plan zoning, for protection and enhancement.

2. To identify future areas, through the forestry plan for the implementation of a programme to expand areas of indigenous forest.
3. To support a ongoing programme of wilding pine control in the tussock grassland and sub alpine areas including the provision of signs to inform the public of the wilding conifer issue and steps they can take to contribute to control.

11.0 GOAL 3: RECREATION OPPORTUNITIES

Ben Lomond

There are two distinct areas of recreation use of the Ben Lomond Reserve.

One is the tourism-based activities that are characterised by;

- Facility developments
- High use
- Private commercial operations
- Primarily visitor use

The second is the casual recreation activities characterised by;

- Informal use
- Predominantly track or terrain based – either walking or mountain biking
- Based on natural and landscape values
- Mix of visitor and local use

While there is some crossover between these two areas of activities, they have different needs and requirements and it is important to recognise these, to ensure the reserve is managed to fulfil the potential opportunities.

The gondola and associated facilities in this area appear to be a highly successful icon of the Queenstown tourist attractions. They appear to have community support with no particular concerns being expressed regarding the appropriateness of this activity on the reserve, although issues of amenity have been noted with regard to the “straight cut” that has been made through trees to provide a clear way for the operation. As such their continued operation on the reserve is supported.

With the focus on the commercial tourist activities there is a potential for the other recreation values and potential of the reserve to be overlooked.

Some walking tracks exist in the reserve, these being the walk up One Mile Creek and the longer walks of the Fernhill – One Mile Loop track and the track to the Ben Lomond summit.

The One Mile Creek walk is through lovely beech forest, which is the closest native bush area to Queenstown and as such, has real potential for greater use by locals and visitors. The track at present is in poor condition and is generally poorly signposted. The main visitor entranceway to this track is at the One Mile Powerhouse which has been recently developed with improved parking.

The Fernhill Loop Track offers a splendid mixture of exotic and beech forest, with alpine tussock lands at the highest sections and many inspiring views.

Additional walking and cycling tracks are proposed including the Town Link track from Thompson Street to Cameron Place in Fernhill.

These tracks offer the experience of a taste of NZ native bush and sub alpine environment within easy reach of the centre of Queenstown. The development of these tracks with appropriate signage, facilities and promotion offer real opportunities for higher recreation use.

There is also mountain bike use in the reserve. There is a dedicated downhill track, which starts from the top of the gondola area and continues down the hill to the north of the One Mile creek track. The track is used by a commercial tourist operator with a licence, as well as casual use. The licensee developed the top section of the track. In addition there are numerous informal mountain bike tracks that have been created by users in the forest area.

A separate downhill mountain bike track and associated freestyle terrain area has been created from Williams Street to the One Mile Powerhouse. The track will need to be rerouted in places to provide for segregated use of the proposed Town Link track and the Downhill Track.

The Fernhill Loop Track is a dual use track.

With the current popularity of Mountain biking there is potential for the development of other tracks. Increasing activity of both walking and mountain biking will lead to some conflicts between the activities, leading to a need for either improved (wider) tracks and/or separate tracks.

The One Mile creek area also contains the historic Powerhouse, together with a dam and remnants of the cast iron water pipe. The Dam was built in approximately 1884 to provide a water supply to the town. The powerhouse and 600mm diameter cast iron water pipe was built in 1924 to provide the first power supply to Queenstown.

The One Mile Power House Powerhouse Restoration Trust has recently restored the historic powerhouse, and is installing a static display of the original generating equipment and providing a graphic display of the early (1880 to 1924) history of power generation in the district. The Powerhouse was officially opened in February 2005.

This historic attraction will add significant interest to the area and enhance the recreational value and use of Reserve. In the future facilities such as public toilets and/or a small interpretive centre with an associated café may be considered.

The reserve area below the Heritage Hotel and Heritage Villa's is owned by Council but has a covenant in place over it requiring the land to be developed and maintained by the owners of Heritage Hotel and Heritage Villas site in perpetuity for public use and enjoyment. A landscape plan is being implemented by the owners of the adjoining property and public tennis courts and a full size petanque terrain were constructed on the site in 2004.

Council has received proposals for the development of a commercial thermal pool complex on this site from two separate parties.

Queenstown Hill

The major recreation use of the reserve is walking on the Queenstown Hill Time Walk track.

There is rock-climbing activity on the bluffs on the western side of the hill beyond the reserve boundary which utilises fixed ladders.

The intention is that Queenstown Hill will be low impact recreation use, with the focus continuing to be on casual use such as currently provided by the walking tracks and rock climbing.

Organised recreation concessions may be considered where the impact is low. Low impact is defined as having no or minimal requirement for built facilities or significant changes to the natural environment and the activity does not significantly impact on the natural quiet of the reserve.

11.1 Objective: Recreation Use

Ben Lomond

- 1 Limited provision of commercial tourism based recreation activities that rely on the unique topography and location of Ben Lomond reserve, and are compatible with the reserves wider values.
- 2 Enhancement of opportunities for casual recreation activities that are based on the enjoyment of the reserves natural environment, topography and landscape views, and are compatible with the reserves wider values.
- 3 Restoration of the historic Powerhouse and associated landscape development to include carparking, stream restoration, improved access and circulation and provision for future interpretive facilities, public amenities in accordance with a landscape plan approved by Council

Queenstown Hill

- 4 Low impact recreation activities that rely on and are complementary to Queenstown Hill's natural quiet.

11.1.1 Policies

- 1 To maintain existing 'recreation' leases where there is clear benefit to public recreation use of the reserve.
- 2 To consider additional commercial recreation activities on the Ben Lomond reserve, that are compatible with, and do not compromise the reserves wider values.
- 3 To limit commercial recreation activities on the Queenstown Hill reserve. Applications for concessions will be considered where it can be clearly demonstrated that they will have a minimal requirement for development of facilities or changes to the environment, and the activity will have a minimal impact on the natural quiet of the reserve.
- 4 To retain the existing vehicle access road to the top of the Gondola, and to maintain the existing easement to Skyline Enterprises Limited, which provides for their uninterrupted access along this road, with maintenance of the road being the responsibility of Skyline Enterprises Limited.
- 5 To permit the limited use of the road for mountain bike events from time to time subject to the event organiser gaining the written approval from the easement tenant (Skyline Enterprises Ltd) and lodging a traffic management plan with Council.
- 6 To develop and maintain to a high standard, a network of walking tracks within the reserves, to the appropriate New Zealand standards

- 7 To exclude mountain bike use within 200 metres of (and including) the Time Walk track and restrict mountain bike use to formed and approved trails.
- 8 To develop new tracks as demand warrants and opportunities are identified.
- 9 Develop a new high standard walking and cycling commuter track from Fernhill to Thompson Street (Town Link Track).
- 10 Undertake a review and rationalisation of existing tracks and identify strategies to minimise conflicts between pedestrian users and mountain bike riders.
- 11 To define tracks as either single use tracks or dual use (mountain biking and walking) and develop the tracks to an appropriate width for each category.
- 12 To plan and develop a network of mountain bike tracks to specifically target beginner and intermediate level riders in association with the Wakatipu Trails Trust and the Queenstown Mountain Bike Club.
- 13 To permit the retention of the existing freestyle mountain bike terrain park to the current extent subject to entering into a lease for the care and maintenance of the facility with a suitable club and subject to future forestry, safety and operational requirements.
- 14 To realign the downhill mountain bike track from Williams Street to the One Mile Powerhouse to minimise pedestrian and mountain bike conflicts.
- 15 To support the preservation of the Powerhouse as a public amenity and historical premise for the enjoyment of the Queenstown community and visitors.
- 16 To permit the use and development of the historic powerhouse as a static or interactive historic display and to provide for the development of associated amenities such as carparking, improved access, public toilets and limited commercial opportunities such as a café or display centre where these are compatible with the use of the powerhouse as a visitor destination.
- 17 To permit the development, alterations and additions to One Mile Creek including the diversion of water and restoration of the dam and pipeline for the purpose of power generation subject to resource management and Reserves Act requirements.
- 18 To recognise that the Powerhouse and the precinct generally has historical significance both in terms of the Queenstown Lakes District Council District Plan and the New Zealand Historic Places Trust.
- 19 To support agencies that wish to stage events within the reserves where the events have clear public good benefits, negligible environmental impacts and which support the vision and goals of this management plan.
- 20 To work with the Department of Conservation and the Wakatipu Trails Trust to ensure all tracks and other recreation assets within and adjoining the Council administered reserves are developed and maintained to consistent and recognised standards.
- 21 To encourage and work with community and other volunteer groups who wish to work with the Queenstown Lakes District Council to develop and maintain appropriate recreation resources.

- 22 To complete a review of sign requirements throughout and leading to the reserves and upgrade signs to guide and provide information for visitors to the reserves including information on trails, descriptions and grades in accordance with the appropriate New Zealand and Council Standards.
- 23 To review the location of the existing interpretative signs on Queenstown Hill and to locate where view shafts are to be created as “resting points” on the uphill walk.
- 24 To prohibit domestic animals (other than dogs) from the reserves.
- 25 To prohibit dogs from the Queenstown Hill Time Walk as much of the walkway is on private farmland which is grazed.

12.0 Goal 4: Protect Landscape Values

Any developments or changes to the management of the reserves vegetation cover have the potential to alter the Landscape values of the reserve. Due to the reserves prominence in the wider landscape setting, any developments or changes must be carefully considered in regard to these landscape values.

The exotic forestry management and in particular the rate and method of logging has the greatest potential to adversely effect the landscape values, although the impact is relatively short term.

Physical structures also have the potential to create an adverse effect. Therefore new structures should be limited and designed, or of a scale so that adverse landscape impacts are minimised.

Long term changes to the vegetation cover will also have an effect on landscape values. This could be as a result of continuing wilding pine spread onto the upper slopes or a managed approach to replacing exotic conifer vegetation with native bush.

The tarns at the top of Queenstown hill are considered to have special values and their protection from wilding pine spread or inappropriate use will receive priority.

Fire has the potential to have a devastating effect on the landscape values of the reserve; the large areas of exotic pine are particularly at risk. As such, active measures should be in place to prevent fires and to deal quickly with any outbreaks.

Helicopter operations over the reserve have a detrimental effect on the natural quiet of the reserve and have the potential to adversely affect the experience of users. However, they are considered an important component of the Tourism services available. As such licenses have been issued for limited landings on the reserve at the Skyline restaurant site. In 2003, 1531 licensed landings were made at this site. This situation will need to be monitored carefully and reassessed when new or renewal of helicopter licenses is considered to ensure that an acceptable balance is achieved. However, it also needs to be recognised that this management plan has no ability to prevent or restrict helicopters flying over the reserve.

The protection and enhancement of the landscape values provided by the vegetation cover is defined in Section 10 Biodiversity

12.1 Objectives: Protect Landscape values

- 1 Current landscape values maintained and protected.
- 2 Limit development of built facilities.
- 3 Minimise impacts of forestry operations
- 4 Protect and enhance vegetation cover
- 5 Reduce potential for fire risk and damage

12.1.1 Policies

- 1 Limit the development of built facilities (such as commercial facilities) to the general area of the existing facilities associated with the gondola, the Powerhouse area and the adjoining reserve below the Heritage Villas.
- 2 Other minor built facilities (such as shelters, toilets, bridges, viewing areas etc) may be considered in locations where they will have a minimal impact on landscape values and/or are of a scale where their impact is minimal, and the need for their development is compatible with the wider values of this management plan.
- 3 Any new buildings or facilities are to be designed to be compatible with the natural landscape, to minimise their impact.
- 4 Forestry logging operations are to be managed to minimise the impact on landscape values, by the use of low impact extraction methods. These logging operations are to be defined and carried out in accordance in the forestry management plan as required by policy 10.1.1.
- 5 To work with the relevant agencies to ensure that an active fire prevention strategy is in place.
- 6 To close access to parts of the reserve when fire risk is considered to be extreme.
- 7 To limit helicopter landing activity on the reserves to ensure that a balance is achieved between meeting the demand for this tourism activity and protecting the reserves "natural quiet" values.
- 8 Create and maintain 'view shafts' through the forest at various points along the Queenstown Hill Time Walk track, to provide views over the township and Wakatipu basin.
- 9 Ensure the protection of the tarns on the top of Queenstown Hill from wilding pine spread, inappropriate uses and other threats.
- 10 The provision of artworks in the reserves will be considered in accordance with Queenstown Lakes District Council arts policy.

PART C: ACTION PLAN

The following is intended to provide a guide for the implementation of this management plan and specific improvements that were identified as desirable during the preparation of the plan.

BEN LOMOND RESERVE	
DESCRIPTION	PRIORITY
<u>Forestry Management Plan</u> : Prepare a forestry management plan which identifies vegetation zones and appropriate management practices for each area.	High
<u>Track from Thompson St to Fernhill</u> : Initiate the development of a shared walk/bike track from Thompson Street to Fernhill, which also serves a commuting role.	High
<u>Revegetation</u> : Initiate an indigenous enhancement planting and weed control programme as identified by the Forestry Management Plan.	Medium
<u>Lomond Cres</u> : Review the carparking arrangements in Lomond Crescent.	Medium
<u>Wilding Pine Control</u> : Review opportunities for the control of wildings through a mixture of commercial contracts and volunteerism on an ongoing basis.	Medium
<u>Signage</u> : Implement an improvement programme for directional and interpretative signs within the reserve and also to guide people from the town centre to the reserve.	High
<u>Leases</u> : Formalise leases for clubs operating facilities such as the Freestyle mountain bike terrain park and the Petanque terrain.	Medium
<u>Helicopter use</u> : Review the helicopter arrangements in terms of number and times of flights to Ben Lomond.	Every Three years

QUEENSTOWN HILL RESERVE	
DESCRIPTION	PRIORITY
<u>Signage</u> : Implement an improvement programme for directional and interpretative signs within the reserve and also to guide people from the town centre to the reserve.	High
<u>Carparking</u> : Investigate improving the provision of carparking at the access points to the reserve. In particular at Belfast Tce.	Medium
<u>View Shafts</u> : Create or re establish 3 to 4 view shafts through the Pine forest to create views from various points along the track subject to these not being visible from the urban area. Create rest areas with seats at these points. Replace Douglas Fir with low growing native shrubs. Relocate if necessary existing interpretative signs.	Medium
<u>Promotion</u> : Provide better promotion of the Queenstown Hill walking tracks through walkway brochures and town centre information.	Low
<u>Horncreek Reserve (Gorge Road Wetland)</u> : Investigate the designation of the reserve and future inclusion into the Queenstown Hill Plan when next fully reviewed (10 years).	Low

The following properties are not currently classified under the Reserves Act 1977, and therefore the policies contained in this management Plan do not formally apply to them.

The Queenstown Lakes District Council will initiate the process of classifying these properties under the Reserves Act 1977 as Recreation Reserve.

Referred to as	Legal Description	Classification	Area (hectares)
Fernhill Road	Sec 136 Blk XX Shotover SD	Stopped Road	0.0301
Fernhill Road – Cameron Cres	Pt Sec 48 Blk I Mid Wakatipu SD	Closed Road	0.1828

Appendix One: Ecology Report

Geology and soils

Most of the area is underlain by finely foliated schist rock of the Haast Schist Group and Chlorite subzone III. This is a relatively soft, erodable rock as indicated by the deeply incised streams, although harder bands of green schist and quartz veins are found in places. Small areas of recent gravels occur along the less steep parts of the streams and lower, lakeshore reserves. The whole area has been glaciated in the past (Pleistocene) and the affect of this can be seen in the steep south face of “Bob’s Peak”, a truncated spur of Ben Lomond, and in the ice rounded topography of Queenstown Hill and spurs of Ben Lomond below about 1200 m. The three creeks draining these south faces have all carved deep valleys and have cut narrow gorges through the soft rock of the lower slopes.

The soils are classified as Brown Soils (Upland Yellow-brown Earths). The soil type is primarily Dunstan Steepland soils with a very steep phase occurring on rocky faces. Dilston soils are found under the beech forest in each of the creeks and close to the lake are Queenstown that have developed on free-draining fans and terraces.

Vegetation

Only a small sample of the original, postglacial vegetation of Ben Lomond remains today and most of this is found on the upper levels of the mountain. The postglacial vegetation here would have been similar to that found in the Twelve Mile area, that is beech forest with broadleaved species in the damper gullies and along the lake edge. A few podocarps such as matai (*Prumnopitys taxifolius*), Hall’s totara (*Podocarpus hallii*) and mountain toatoa (*Phyllocladus alpinus*) may have also been present. But by the time William Rees arrived to take his sheep to the head of the lake, at least some of this forest had gone, burnt by natural or Maori fires and aided by a fire lit by Rees himself (Duncan 1964).

Today remnant beech forest continues to occupy all three of the steep-sided creek beds where it has been protected from fire, and it also covers some of the upper slopes of the One Mile Creek catchment to about 1060 m, the original treeline. In places, the beech forest extends almost to lake level. Small patches of mountain beech (*Nothofagus solandri* var. *cliffortioides*) also occur on the south and southwest faces of “Bob’s Peak”. Above this, tussock grassland dominates with a narrow band of sub-alpine shrubland in places. The tussockland descends downhill along the edge of the beech forest where the latter has been depressed by fire and maintained by grazing, but lower down exotic grasses become prominent. A large area of manuka (*Leptospermum scoparium*) shrubland occurs on the true right of One Mile Creek but is fast disappearing under the encroaching Douglas fir (*Pseudotsuga menziesii*). Almost surrounding the beech forest in places and covering much of the lower slopes right down to the lakeshore is tall Douglas fir. Damp gullies on the south face of “Bob’s Peak” contain patches of sycamore (*Acer pseudoplatanus*) while larch (*Larix decidua*) is prominent on west faces. Many other exotic species and weed plants cover the lower slopes, particularly where logging has occurred. They include rowan (*Sorbus aucuparia*), *Pinus radiata*, two species of *Cotoneaster*, Himalayan honeysuckle (*Leycesteria formosa*), gooseberry (*Ribes uva-crispa*) and blackberry (*Rubus fruticosus*). Broom (*Cytisus scoparius*) is growing on some of these areas with a few patches along the foot of “Bob’s Peak”.

Most of the reserve area on the southwest end of Queenstown Hill has a similar plant cover to that on lower “Bob’s Peak”. It has a wide range of exotic trees and shrubs but dominated by Douglas fir with also radiata pine (*Pinus radiata*), Lawson species (*Cupressus lawsoniana*) and silver birch (*Betula pendula*). A small area of manuka with matagouri (*Discaria toumatou*), *Coprosma propinqua* and hard tussock (*Festuca novae-zelandiae*) with invading Douglas fir is found part way up the walking track. A relatively small area of grassland remains above the tall Douglas fir on the western corner. It contains a range of native shrubs such as *Dracophyllum uniflorum* and snowberry (*Gaultheria crassa*) and small native herbs such as *Celmisia gracilentia* and *Ourisia caespitosa* but is gradually being overtaken by Douglas fir.

Beech Forest

Mountain beech forest occupies some of the upper slopes and the sides of One Mile, Two Mile and Bush Creeks with a few patches on the face of "Bob's Peak". The forest of the spurs and dry valley sides has a sparse understorey with occasional broadleaf (*Griselinia littoralis*) *Coprosma lucida*, *Coprosma propinqua*, mikimiki (*Cyathodes juniperina*) and tall snowberry (*Gaultheria antipoda*). Moss cushions (*Dicranoloma* sp.) are common in more open areas. In the damper gullies and nearer the streambed, the forest is more diverse with species such as putaputaweta (*Carpodetus serratus*), fuchsia (*Fuchsia excorticata*), *Olearia arborescens*, *Coprosma* sp. aff. *parviflora*, *Coprosma linariifolia*, *Coprosma rhamnoides*, kohuhu (*Pittosporum tenuifolium*), wineberry (*Aristotelia serrata*), lancewood (*Pseudopanax crassifolius*), three-finger (*Pseudopanax colensoi* var. *ternatus*) koromiko (*Hebe salicifolia*) and *Helichrysum aggregatum*. Red beech (*Nothofagus fusca*) occurs sporadically on warmer sites and where the soil is deeper. The yellow mistletoe (*Alepis flavida*) is found occasionally on mountain beech, and on forest edges where it can reach the light grow a few white clematis (*Clematis paniculata*). A number of ferns grown in the gullies also including *Asplenium fluviatile*, prickly shield fern (*Polystichum vestitum*), *Polystichum richardii*, hounds tongue (*Phymatosorus diversifolius*), *Asplenium gracillimum*, *Blechnum montanum*, *Blechnum vulcanicum*, *Blechnum procerum*, *Blechnum chambersii* and *Blechnum penna marina*. The large bush lily (*Astelia fragrans*) and climbing lawyer (*Rubus schmidelioides*) are also present. The opening up of light gaps adjacent to the beech forest patches along the Skyline road has allowed some regeneration of mountain beech with young trees now present in places.

Subalpine Shrubland

In places such as the head of One Mile Creek, there is a narrow band of shrubland. Subalpine shrubs also occur on cold, rocky slopes and frequently in the tussock grassland. The main species are the red turpentine shrub (*Dracophyllum uniflorum*) and *Hebe anomala*. Other prominent shrubs are *Coprosma cheesemaniae*, the snowberries *Gaultheria novae-zelandiae* and *Gaultheria crassa* and the large, fierce and unnamed speargrass (*Aciphylla* sp. "lomond"). Less common are *Olearia cymbifolia*, the native brooms *Carmichaelia crassicaule* var. *ramosa* and *Carmichaelia petriei*, *Hebe hectorii*, the cottonwood (*Ozothamnus vauvilliersii*), *Pimelea oreophila* and the prostrate coprosma (*Coprosma petriei*). The yellow flowered shrub *Brachyglottis revoluta* is found on the higher, rocky, damp south faces with *Celmisia angustifolia*.

Tussock grassland

Above the treeline, grassland takes over as the vegetative cover. At lower altitudes there is much introduced grass with brown top (*Agrostis capillaris*) and sweet vernal (*Anthoxanthum odoratum*) prominent and numerous shrubs including the introduced sweet brier (*Rosa rubiginosa*). The large snow tussock (*Chionochloa rigida*) occurs as scattered plants, but the introduced plants reduce in number and importance higher up until at about 1000 m there are few or none at all and narrow-leaved snow tussock dominates. Many small herbs, grasses and shrubs also grow amongst the tussock including *Raoulia subsericea*, *Celmisia gracilentia*, *Celmisia lyallii*, *Ranunculus multiscapus*, *Ourisia caespitosa*, *Anisotome flexuosus*, *Geranium microphyllum*, *Viola cunninghamii*, *Wahlenbergia albomarginata*, *Brachyglottis bellidioides*, *Acaena caesiiglauca*, *Epilobium alsinoides*, the grasses, hard tussock (*Festuca novae-zelandiae*), blue tussock (*Poa colensoi*), dwarf tussock (*Rytidosperma pumila*) and wheat grass (*Elymus solandri*) and clubmosses *Lycopodium fastigiatum* and *Lycopodium australianum*. The small shrubs patotara (*Leucopogon fraserii*), *Cyathodes pumila* and *Coprosma petriei* and the woodrush *Luzula rufa* are relatively common while the mountain lily (*Astelia nervosa*) is found occasionally.

Exotic communities of the lower slopes

During the 1940's and 50's as part of Arbour Day activities, school children planted trees along the foot of "Bob's Peak" and Queenstown Hill. The present mix of large trees on both hills is the result of these plantings and of subsequent natural spread from seedlings. Trees such as Douglas fir, larch and sycamore in particular have found the conditions ideal and have become prolific in places and still spreading. An aerial drop of seed assisted the spread of Douglas fir in 1964. At this time trees still only sparsely covered the hillsides above Queenstown with grasses dominating.

Today all the lower slopes of the reserve land except for the creek sides are covered in introduced trees, shrubs and many large herbs such as foxglove (*Digitalis purpurea*) and tussock hawkweed (*Hieracium lepidulum*) that also favours shaded slopes.

Douglas fir (*Pseudotsuga menziesii*)

From the lakeshore up to about 1100 m Douglas fir are now growing and are gradually increasing their area at the expense of both the native tussock and shrubland and also the native beech forest. They have the potential to attain much higher altitudes than mountain beech and could eventually cover the whole of Ben Lomond and Queenstown hill, considerably reducing the biodiversity and interest of both areas. Their seedlings will grow in lower light conditions than beech seedlings and can infiltrate mature beech forest so that they not only prevent natural beech regeneration around the edges but also will compete with the mature trees and reduce their vigour and longevity. Along the upper edges of the Douglas fir invasion can be seen dead and dying native plants that have succumbed to the reduced light conditions.

Fauna

The bird life of the reserves is quite varied with many introduced birds such as blackbird (*Turdus merula merula*), thrush (*Turdus philomelos clarkei*), starling (*Sturnus vulgaris vulgaris*), yellow hammer (*Emberiza citrinella caliginosa*), goldfinch (*Carduelis carduelis britannica*), green finch (*Carduelis chloris chloris*), chaffinch (*Fringilla coelebs gengleri*), redpoll (*Carduelis flammea cabaret*), skylark (*Alauda arvensis arvensis*) and hedge sparrow (*Prunella modularis occidentalis*). Some of these species are mainly found in open land and grassland, others such as blackbird and thrush are found in most habitats including exotic and native forest and shrubland. Native forest and shrubland birds found in the area include silvereye (*Zosterops lateralis lateralis*), grey warbler (*Gerygone igata*) and fantail (*Rhipidura fuliginosa*), bellbird (*Anthornis melanura*), brown creeper (*Finschia novaeseelandiae*) and occasionally yellow-breasted tit (*Petroica macrocephala*). Open country birds of this area include the pipit (*Anthus novaeseelandiae novaeseelandiae*), while Australasian harrier (*Circus approximans*) and New Zealand falcon (*Falco novaeseelandiae*) are frequent visitors. Tui (*Prosthemadera novaeseelandiae*) and New Zealand pigeon (*Hemiphaga novaeseelandiae*) may be occasional visitors and Shining cuckoo (*Chrysococcyx lucidus lucidus*) are likely visitors over the summer months.

A generally unseen but important part of the ecology of the area is the invertebrates. Invertebrates not only provide food for the birds but also break down plant material to create an organic layer and provide plant nutrients, aerate the soil and pollinate flowers. Although no comprehensive study has been completed on Ben Lomond, numerous species of moths, butterflies, flies, spiders, beetles, land snails, grasshoppers, caddis and others groups of insects have been recorded from here and around the district.

The McCann's skink (*Oligosoma maccani*) and common Otago gecko (*Hoplodactylus* sp.) are probably present on rocky parts of the area, the former may be seen scuttling for cover on sunny days. The latter is nocturnal in habit.

Animals present in the area but generally in low numbers include possum (*Trichosurus vulpecula*), stoat (*Mustela erminea*), hares (*Lepus europaeus occidentalis*) and goats (*Capra hircus*). Mice (*Mus musculus*) and ship rat (*Rattus rattus*) will be present throughout but are nocturnal and seldom seen.

Ecological Significance

The ecological significance of the reserves lies in the retention and preservation of the existing natural values. Visitors to Queenstown can see New Zealand beech forest and in particular, subalpine shrubland and montane tussock grassland all within easy walking distance from town or the gondola. The walk up One Mile Creek takes you up through diverse beech forest to the subalpine and alpine zones a walk emulated by few if any other town or city in New Zealand. This vegetation can be likened to a microcosm of the mountain vegetation of the South Island and is generally representative of our montane forests and tussocklands. All natural values and the existing biodiversity in the reserves are threatened by the spread of wild conifers and will eventually be lost without intervention.

APPENDIX TWO: Leases, Licenses, Concessions and Landscape Plans

Lessor	Lessee	Commencement	Term	Final Expiry	Location	Purpose
QLDC	Peak Bungy Ltd	1 Dec 1997	10 years	2017	Section 110 Block XX Shotover SD	Bungy Jumping operation
QLDC	Vertigo Heli Adventures Ltd	1 November 2001	5 years	2011	Section 110 Block XX Shotover SD And Section 106, Block XX, Shotover SD	Downhill mountain biking operation
QLDC	Queenstown Commercial Parapenters Ltd	1 June 2000	20 years	2020		
QLDC	Skyline Enterprises Ltd	1 April 1995	5 years	2070	Section 1 SO 24832 and Section 1 and Pt of CT9B/769 SO 22971	Gondola, Luge and associated activity
QLDC	Via Ferrata NZ Limited	Under negotiation	Under negotiation	Under negotiation	Lot 2 DP 20808, Blk XX Shotover SD	Rock Climbing Operation

Easements

In favour of Dunedin Electricity Limited as a right of way to convey water, electricity and telephonic communications
2 April 1997 over Section 42 Block I Mid Wakatipu Survey District.

Licences under the Civil Aviation Regulations (Superseded)

Alpine Helicopters Ltd
Southern Lakes Helicopters

Approved Council landscape Plans

One Mile Powerhouse Landscape Plan, Blakely Wallace 2004
Two Mile Creek Landscape Management Plan, Morgan Pollard and Associates, 2004
Heritage Hotel – Little Rock Villas Landscape Plan 2003

Appendix Three: Reserves Act 1977

19. Scenic reserves---

- (1) It is hereby declared that the appropriate provisions of this Act shall have effect, in relation to reserves classified as scenic reserves---
 - (a) For the purpose of protecting and preserving in perpetuity for their intrinsic worth and for the benefit, enjoyment, and use of the public, suitable areas possessing such qualities of scenic interest, beauty, or natural features or landscape that their protection and preservation are desirable in the public interest:
 - (b) For the purpose of providing, in appropriate circumstances, suitable areas which by development and the introduction of flora, whether indigenous or exotic, will become of such scenic interest or beauty that their development, protection, and preservation are desirable in the public interest.
- (2) It is hereby further declared that every scenic reserve classified for the purposes specified in subsection (1) (a) of this section shall be so administered and maintained under the appropriate provisions of this Act that---
 - (a) Except where the Minister otherwise determines, the indigenous flora and fauna, ecological associations, and natural environment and beauty shall as far as possible be preserved, and for this purpose, except where the Minister otherwise determines, exotic flora and fauna shall as far as possible be exterminated:
 - (b) The public shall have freedom of entry and access to the reserve, subject to the specific powers conferred on administering bodies by sections 55 and 56 of this Act, to any bylaws under this Act applying to the reserve, and to such conditions and restrictions as the administering body considers to be necessary for the protection and well-being of the reserve and for the protection and control of the public using it:
 - (c) To the extent compatible with the principal or primary purposes of the retention and preservation of the natural or scenic values, open portions of the reserve may be developed for amenities and facilities where these are necessary to enable the public to obtain benefit and enjoyment from the reserve:
 - (d) Where historic, archaeological, geological, biological, or other scientific features are present in the reserve, those features shall be managed and protected to the extent compatible with the principal or primary purpose of the reserve: Provided that nothing in this paragraph shall authorise the doing of anything with respect to fauna that would contravene any provision of the Wildlife Act 1953 or any regulations or Proclamation or notification under that Act, or the doing of anything with respect to archaeological features in any reserve that would contravene any provision of the Historic Places Act 1954:
 - (e) To the extent compatible with the principal or primary purpose of the reserve, its value as a soil, water, and forest conservation area shall be maintained.
- (3) It is hereby further declared that every scenic reserve classified for the purposes specified in subsection (1) (b) of this section shall be so administered and maintained under the appropriate provisions of this Act that---
 - (a) Except where the Minister otherwise determines, the flora and fauna, ecological associations, and natural environment and beauty shall as far as possible be preserved:
 - (b) The public shall have freedom of entry and access to the reserve, subject to the specific powers conferred on administering bodies by sections 55 and 56 of this Act, to any bylaws under this Act applying to the reserve, and to such conditions and restrictions as the administering body considers to be necessary for the protection and well-being of the reserve and for the protection and control of the public using it:
 - (c) To the extent compatible with the principal or primary purposes of the retention and preservation of the natural or scenic values, open portions of the reserve may be developed for amenities and facilities where these are necessary to enable the public to obtain benefit and enjoyment from the reserve:
 - (d) Where historic, archaeological, geological, biological, or other scientific features are present in the reserve, those features shall be managed and protected to the extent compatible with the principal or primary purpose of the reserve: Provided that nothing in this paragraph shall

authorise the doing of anything with respect to fauna that would contravene any provision of the Wildlife Act 1953 or any regulations or Proclamation or notification under that Act, or the doing of anything with respect to archaeological features in any reserve that would contravene any provision of the Historic Places Act 1954:

- (e) To the extent compatible with the principal or primary purpose of the reserve, its value as a soil, water, and forest conservation area shall be maintained.

17. Recreation reserves---

- (1) It is hereby declared that the appropriate provisions of this Act shall have effect, in relation to reserves classified as recreation reserves, for the purpose of providing areas for the recreation and sporting activities and the physical welfare and enjoyment of the public, and for the protection of the natural environment and beauty of the countryside, with emphasis on the retention of open spaces and on outdoor recreational activities, including recreational tracks in the countryside.
- (2) It is hereby further declared that, having regard to the general purposes specified in subsection (1) of this section, every recreation reserve shall be so administered under the appropriate provisions of this Act that---
 - (a) The public shall have freedom of entry and access to the reserve, subject to the specific powers conferred on the administering body by sections 53 and 54 of this Act, to any bylaws under this Act applying to the reserve, and to such conditions and restrictions as the administering body considers to be necessary for the protection and general well-being of the reserve and for the protection and control of the public using it:
 - (b) Where scenic, historic, archaeological, biological, geological, or other scientific features or indigenous flora or fauna or wildlife are present on the reserve, those features or that flora or fauna or wildlife shall be managed and protected to the extent compatible with the principal or primary purpose of the reserve: Provided that nothing in this subsection shall authorise the doing of anything with respect to fauna that would contravene any provision of the Wildlife Act 1953 or any regulations or Proclamation or notification under that Act, or the doing of anything with respect to archaeological features in any reserve that would contravene any provision of the Historic Places Act 1954:
 - (c) Those qualities of the reserve which contribute to the pleasantness, harmony, and cohesion of the natural environment and to the better use and enjoyment of the reserve shall be conserved:
 - (d) To the extent compatible with the principal or primary purpose of the reserve, its value as a soil, water, and forest conservation area shall be maintained.

23. Local purpose reserves---

- (1) It is hereby declared that the appropriate provisions of this Act shall have effect, in relation to reserves classified as local purpose reserves, for the purpose of providing and retaining areas for such educational, community, social, or other local purposes as may be specified in the Gazette notice issued under section 16 of this Act classifying the reserve.
- (2) It is hereby further declared that, having regard to the general purposes specified in subsection (1) of this section, every local purpose reserve shall be so administered and maintained under the appropriate provisions of this Act that--
 - (a) Where scenic, historic, archaeological, biological, or natural features are present on the reserve, those features shall be managed and protected to the extent compatible with the principal or primary purpose of the reserve: Provided that nothing in this paragraph shall authorise the doing of anything with respect to fauna that would contravene any provision of the Wildlife Act 1953 or any regulations or Proclamation or notification under that Act, or the doing of anything with respect to archaeological features in any reserve that would contravene any provision of the Historic Places Act 1954: Provided also that nothing in this paragraph shall authorise the doing of anything with respect to any esplanade reserve created under Part XXV of the Municipal Corporations Act 1954 or Part II of the Counties Amendment Act 1961 and existing at the commencement of this Act or any local purpose reserve for esplanade purposes created under the said Part XXV or Part II after the commencement of this Act that would impede the right of the public freely to pass and

repass over the reserve on foot, unless the administering body determines that access should be prohibited or restricted to preserve the stability of the land or the biological values of the reserve:

- (b) To the extent compatible with the principal or primary purpose of the reserve, its value as a soil, water, and forest conservation area shall be maintained.
- (3) Where a local purpose reserve is vested in a local authority or where the administering body is a local authority, it may from time to time, by public notice, prohibit access to the whole or any specified part of the reserve, and in that case no person shall enter the reserve or, as the case may be, that part, except under the authority of a permit issued by the local authority.
- (4) Where a local purpose reserve is not vested in a local authority and a local authority has not been appointed to control and manage it, the Minister may from time to time, by public notice, prohibit access to the whole or any specified part of the reserve, and in that case no person shall enter the reserve or, as the case may be, that part, except under authority of a permit issued by the Minister.

Appendix four: Powerhouse history

The Powerhouse

One Mile Creek, Queenstown

Background

The Powerhouse building is located at the end of the vehicle track leading off the Fernhill roundabout in Queenstown. It was built in 1924 to house Queenstown's first electrical generating plant. Up till that time Queenstown had not had a mains supply, despite public pressure for an electrical supply. Public areas etc were lit by gas light until the spectacular explosion of the gas works in 1923, blowing out the windows of over half the buildings in the town.

(Eichardt's Hotel in Queenstown had, however, had electric lighting to its public rooms from as early as 1886 thanks to the determination of Julia Eichardt and the electrical generating technology developed in the early gold fields.)^[1]

The site at the One Mile was well suited to the location of a hydro electric generating plant being beside the One Mile Creek and below the dam constructed by the Council in approximately 1884 to provide a mains water supply to the town.

Water was piped to the plant via a 600mm diameter cast iron pipe, presumably from the dam, entered the building below ground, passed through the generator, and returned to the creek by means of a stone and concrete lined spillway, which was also below ground level.

(Malcom Boote, and the Queenstown and Lakes District Historical Society, have more detailed information regarding generating plant itself.)



View from southern approach showing Powerhouse and adjoining concrete slab and upstand



Detail showing spillway emerging from Under Western wall

[1] See Conservation Plan for Eichardt's Hotel, Salmond Reed Architects, 2001, pp 10-12.

References

Boffa Miskell Partners Limited. 1991: Sunshine Bay, Queenstown Bay, Frankton, Kelvin Heights Foreshore Management Plan. Queenstown Lakes District Council, Queenstown.

Department of Conservation. 2001: Queenstown walks and trails, Department of Conservation, Dunedin

Duncan, Alfred H. 1964: The Wakatipians. Reprint by Lake County Centennial Museum, Arrowtown.

Guild, D. 2000: Management Plan for "Bob's Peak" Forest, Wrightson Forestry Services, Dunedin

Gibbs, H.S. 1980: New Zealand Soils. An introduction. Oxford University Press, Wellington.
King, Caroline M. (Ed.) 1998: The Handbook of New Zealand Mammals. Oxford University Press, Auckland.

McCraw, J.D. 1956: Soils of Lower Shotover Catchment in Shotover River Survey (Lower Catchment). Otago Catchment Board Bulletin No. 2. Dunedin.

Rutherford, C. 2002: Queenstown Lakes District Council Parks Strategy, Queenstown Lakes District Council, Queenstown

NZS HB 8630 – Specifications for Walking Tracks and Outdoor Visitor Structures.

Department of Conservation: South Island Wilding Conifer Strategy

Department of Conservation. August 1998: Otago Conservation Management Strategy..

Ngai Tahu Maori Trust Board. 1995: Ngai Tahu in the Wakatipu.

Natural Solutions for Nature Ltd, Forest Research and Go Green Consulting. 2004: Wakatipu Wilding Conifer Strategy. Queenstown Lakes District Council, Queenstown.