Ruapehu Alpine Lifts Ltd

Whakapapa Ski Area, Mt Ruapehu

Application for Licence Renewal
Proposal Outline and Environmental Impact Assessment

2011-057AP4
24 October 2014

Mt RUAPEHU
WHAKAPAPA & TUROA

Ruapehu Alpine Lifts Limited

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Application for Licence Renewal
Proposal Outline and Environmental Impact Assessment

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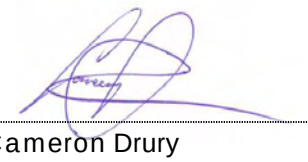

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Cheal Consultants Hawkes Bay Manager

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5. Economic Reports – Price Waterhouse Coopers 2014 and NZ Tourism Research Institute, Auckland University of Technology, Mt Ruapehu Ski-fields: An Economic Impact Study, March 2002.
6. Letter of support from Ruapehu Mountain Clubs Association.
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APPLICATION DETAILS

Authority: Minister of Conservation

The Applicant: Ruapehu Alpine Lifts Ltd (**RAL**)

Address for Service: Cheal Consultants Limited, PO Box 165, Taupo 3351

Address for Invoice: Ruapehu Alpine Lifts Ltd, Private Bag, Mt Ruapehu

Site Details:

Street Address ..... Bruce Road, Tongariro National Park
Legal Description ..... Ruapehu 1B and Ruapehu 1A
Computer Freehold Register WN135/99

Activity for which a concession is sought:

A concession (licence and lease) is sought by RAL to continue to operate the Whakapapa Ski Area.

EXECUTIVE SUMMARY

Ruapehu Alpine Lifts (**RAL**) have developed and operated the Whakapapa Ski Area since 1953 and are now seeking a new, and third, licence to continue operation of recreational and tourism activities on the terrain within the current ski area boundaries. The proposal provides for the use and enjoyment of Tongariro National Park for a wide range of people of all ages and a range of physical capabilities. No changes to the existing boundaries of the Ski Area are proposed and the design carrying capacity will not exceed, and will be significantly less than, the carrying capacity provided for within the Tongariro National Park Management Plan. The Whakapapa and Turoa Ski Areas are the only commercial ski areas in the North Island of New Zealand.

The continued existence of the Ski Areas is provided for in the Tongariro National Park Management Plan and the Plan recognises the benefits of operating both the Whakapapa and Turoa Ski Areas with the one Concessionaire (RAL). These two ski areas now attract up to 500,000 day visitors during a winter season with close to 90% of these persons being resident North Islanders. The proposal meets the criteria of the Limited Supply Agreement for a Preferential Right to Apply. A term of 60 years is sought.

Tongariro National Park, including the current ski area terrain, is recognised for its outstanding cultural and natural values and has been conferred with dual World Heritage Status. The area is also highly valued for its landscape values, recreational values and beneficial social and economic impacts that accrue to the surrounding communities as a result of activities such as those undertaken by RAL occurring within the area. RAL have adapted to the challenges of providing recreational activities within a National Park that has significant cultural and landscape values and to operating within a hazardous environment subject to extreme events and processes of nature. A Cultural Impact Assessment has been commissioned and RAL are committed to mitigating cultural effects on an ongoing basis through the maintenance and enhancement of relationships with Tangata Whenua at governance and management levels.

In order to assist in managing the environmental and cultural effects of the operation, RAL have planned future upgrades and replacement proposals which result in a net decrease in the number of ski lifts and other structures, particularly within the Gift Area. To further reduce environmental, cultural and visual impacts it is also proposed to remove those ski lifts currently located on the outer eastern and western slopes and provide replacements within a more central corridor of the upper Ski Area. This will narrow the terrain affected by infrastructure especially on these more sensitive upper slopes. To progress these infrastructural upgrade plans RAL needs licence certainty.

A detailed construction management plan for each project will be provided if approval is granted. Construction methodology will include minimising the area of disturbance, erosion and sediment control, avoiding streams and any areas of ecological significance and rehabilitation of the sites with plants harvested from the areas prior to construction.

RAL have been operating the Whakapapa Ski Area for more than 60 years and during that time have demonstrated their commitment to continuously improving operations in order to address the unique environment and unique values of the locale. Assessments of the proposal in regards to landscape effects and ecological effects are included.

1. INTRODUCTION

RAL has operated the Whakapapa Ski Area since 1953. The Whakapapa Ski Area has a long history of commercial use and consequently has extensive infrastructure established onsite. Skiing as a sport has now been enjoyed on these north western slopes of Mt Ruapehu for over 100 years. The ski area is operated to provide recreational opportunities all year round which cannot be located outside of the National Park due to the topography and altitude necessary for skiing and associated high alpine recreational activities and experiences.

Whakapapa Ski Area currently attracts 150,000 to 200,000 visitor days (i.e. one person for one day) during a winter season and 15,000 to 20,000 visitor days during a summer season. These numbers reflect persons that ride a lift. It is estimated that a further 30,000 to 50,000 in winter and 20,000 to 30,000 in summer will travel to the road end, will play in the snow and generally experience the alpine environment and scenery at that altitude. Resident North Islanders make up 85% of the winter visitors and 50% of the summer visitors.

The current licence is due to expire in 2019 and a replacement licence is sought now as this 2019 expiration date, in less than six years, provides insufficient time and certainty for RAL to continue to undertake infrastructure upgrades at Whakapapa. No changes to the current licence boundaries are sought.

Future planning has been incorporated into the licence application and provides for increased snow making and narrowing of the area currently containing ski lifts.

The following report includes a description of the proposal including volunteered clauses, the licence area, licence term and planned upgrades; a description of RAL, a description of the site; discussion of consultation and an Environmental Impact Assessment.

A detailed policy assessment pertaining to the Tongariro National Park Management Plan (**TNPMP**), World Heritage Status and other relevant policy documents and legislation is provided at Appendix 2. Also included in the appendices is an Assessment of Landscape and Visual Effects, an Ecological Assessment and an Economic Assessment.

The application is to be considered under Part 3B of the Conservation Act 1987, requires public notification and if granted, conditions may be imposed under Section 17X of the Act.

2. DESCRIPTION OF PROPOSAL

2.1 Current Licence

The existing licence was granted to RAL in January 1990, with this 1990 licence being a renewal of the original licence granted in 1953. The existing licence was expected to be renewed in 2019 for another 30 years as indicated in the licence. This is also referred to in the TNPMP at page 197 where it states that the licences for Whakapapa and Turoa have some decades to run. However, in July 2013, DOC made RAL aware that, due to changes in the legislation, the 30 year renewal of the licence due in 2019 was not going to be the process that both RAL and DOC had believed it

to be. Instead of a simple renewal process, the new understanding was that the process would be the same as an entirely new licence application.

Existing clauses of the licence cover such topics as surrender of previous licences, payment of rent, removal of rubbish, provision of toilets and shelter, minimum operating times, provision of safety services, machinery maintenance, indemnity and insurance. The licence allows for new facilities and upgrades with the written approval of the Department of Conservation (through a Works Approval process), when the proposal is consistent with the Indicative Development Plan (**IDP**) and the IDP is consistent with the TNPMP.

2.2 Proposed Licence and Lease

A new licence is sought to continue the skiing and recreational operations at Whakapapa Ski Area. The existing licence covered the entire Ski Area and did not require lease agreements. DOC officers have advised that under the current legislation, a lease is also required over the buildings and curtilage. A lease is required to enable security and safety of the assets and of people. Hereafter within the report the licence and lease are referred to collectively as the licence. The licence is to provide for recreational enjoyment of the Whakapapa Ski Area with related ancillary services. The following description of the activity is proposed.

Alpine tourism and recreation activities with associated ancillary services and infrastructure within the Licence area, as provided for in the Tongariro National Park Management Plan (or any policy document which supersedes the TNPMP).

Such activities include, but are not limited to, snow sports and summer activities, hiking and guided tours, transport over the ski area, sporting events, sports lessons and coaching. Ancillary activities include, but are not limited to, transport to and within the ski area, gear hire and sales, photography, cafés and restaurants, medical services, outdoor education, hazard management and education, safety systems, snowmaking and grooming, administration and management of the ski area, carparking, childcare services, ski area machinery storage and maintenance. In addition, hosting cultural, educational and community activities is provided for with the written approval of the Licensor. The licence is expected to specifically exclude industrial activities not ancillary to ski area operations and overnight commercial and residential accommodation.

Clauses of the existing licence that have been pivotal to the management and operation of the area which are also sought in the proposed licence include:

7. Limitations of Effect of Licence

   …. Provided however that the Licensor shall not issue a licence or permit, nor provide or undertake for remuneration, any trade, business, occupation or activity within the licence area to a party other than the Licensee without first giving the Licensee a reasonable opportunity to carry out that trade, business, occupation or activity. AND the Licensee shall not attempt to restrain or interfere with the right of the public to enter and remain in the Licence area, provided that they conduct themselves in an orderly manner and do not attempt to avail themselves of the privileges of a paying client without payment of the application charge.

8. *Environmental Protection*

The Licensee will carry out its business within the Licence area in such a manner as will ensure minimum interference with any natural features and vegetation within that area. In particular it will be the responsibility of the Licensee to collect and remove all rubbish excluding that rubbish emanating from facilities of the Licensor or any other organisation operating under a separate approval, licence or permit within the Licence area, from the Licence area or any other rubbish that had originated from within the Licence area. …..

16. *Buildings*

The Licensee will not erect any structures including buildings and shall not alter externally, enlarge or demolish any structures presently erected or change the primary use of a structure without first obtaining the written consent of the Licensor. All work will be carried out in accordance with plans and specifications submitted to and approved by the Licensor. The Licensee will keep all structures in good repair in colours approved by the Licensor.

18. *New Developments*

The Licensee may erect new facilities and upgrade its facilities with the prior written approval of the Licensor, under the following conditions:

a) The Licensee will prepare a Whakapapa Skifield Indicative Development Plan detailing its proposals. Such plan shall be reviewable yearly or at such other times as is mutually agreed between the parties.

b) The Plan will be prepared in terms of the Park Management Plan and will comply with the latter in every respect, particularly as the requirement for public safety and welfare.

c) The Licensor's final approval shall be necessary and may be given subject to such terms and conditions as the Licensor sees fit in terms of the Act, the general statement of policies of the National Parks and Reserves Authority current at the time, the then current TNPMP and such other laws or regulations relating to matters of public safety and welfare as are current at that time.

Clauses relating to the provision of safety services are also anticipated. Clause 7 above provides RAL control over commercial activities within the Ski Area due to the significant investment cost in the Ski Area by RAL. RAL also provides car-parking, transport, bathroom and medical services for users of the Ski Area and therefore need to maintain some control over commercial activities within the licence area. This also avoids conflict between concessionaires. In support of clause 7 is policy 3 of 5.2.6 (Ski Area Licences) of the TNPMP that states – *the efficiencies of single concessionaire regimes will be maximised*. Accordingly clause 7 gives effect to the stated policy of the TNPMP. Clause 8 stipulates that RAL must operate in an environmentally responsible manner and clauses 16 and 18 provide DOC with control over alterations and new developments within the licence area.

Possible new clauses volunteered by RAL for consideration include:

- That the design carrying capacity shall not exceed 5,500 skiers per day.
- That there shall be no additional encroachment of infrastructure into the Gift Area (Tuku). Currently there are five lifts which extend into the Tuku; it is proposed this will reduce to three with renewal and replacement proposals.

- That the concessionaire shall promote and acknowledge the cultural values of Mt Ruapehu, where appropriate and in collaboration with Tāngata Whenua.

2.3 Licence and Lease Areas

The existing Whakapapa licence area covers approximately 550 hectares and no changes to the licence boundaries are proposed. The area is bounded to the east by the summit of Pinnacle Ridge extending northwards to Skippers Bluff and then the summit of Te Herenga Ridge to the north by the contour on the northern face of Mt Ruapehu at an altitude of 1,500m above sea level (**asl**). To the west it is bounded by the eastern ridge of the main Whakapapaiti Stream; and to the south by the contour on the northern face of Mt Ruapehu at an altitude of 2,300m asl. A plan of the licence area is included in Appendix 1.

RAL have undertaken a pre-lodgement process with DOC officers over the last few years. During this process, DOC officers have advised that in addition to the licence, a lease is required over the buildings and structures (with 1m curtilage). We understand that a range of options are possible, such as a single lease over a collection of buildings and structures within close proximity of each other, rather than individual buildings, and the lease agreement can provide for a certain percentage of change to the footprint of the buildings. Accordingly we anticipate that the form of the lease will be the subject of further discussions between DOC, Tāngata Whenua and RAL.

2.4 Licence Term

A Licence term of 60 years is sought, as was provided for in the current licence.

Ski Area infrastructure is expensive to construct, but the high capital cost can be justified provided a long period of operation is available to realise the benefit of investment. Accordingly the duration of the License sought is considered appropriate for the level of investment required and in consideration of the long period required before any commercial return on the investment is achieved.

Section 17Z of the Conservation Act 1987 provides for licences with a term of 60 years where there are exceptional circumstances. The exceptional circumstances that warrant a term of 60 years in this case is the high capital value of investment in infrastructure that is required and the lengthy term of operation that is required before any commercial return is achieved. Long term certainty in the licence also provides the licensee with greater incentive to undertake operations in an environmentally and culturally responsible manner. The following discussion expands upon some of the costs encountered by an operation of the nature proposed within the National Park.

Property, plant and equipment over both Ski Areas has a replacement cost valued at $153.5m, with replacement cost of the Whakapapa assets being at a value of $65m. An average annual capital investment program to the value of $4m to $5m has been and continues to be required to provide for the end of life replacement of the current assets at Whakapapa. Recently the Knoll Ridge Chalet and Cat Shed were reconstructed after an arson attack destroyed the buildings. The cost of the rebuild including the planning and design process, approval process and construction was approximately $12m.

Infrastructure such as lifts and buildings are expensive due to their bespoke design, the difficulties of construction in the alpine environment plus their location being frequently some distance away from a road end. Other less significant purchases (e.g. Snow Groomers, snow making equipment) are also costly due to the specialised nature of this equipment. For example, in the year ending March 2013 RAL invested $3m in new machinery of this type, including five new groomers and eight energy efficient snow guns across both ski areas. Also in the same financial year RAL purchased a specialist snow plough truck, a snow plough tractor and a snow blower unit at a cost of over $500,000 for snow clearing of the access roads.

Wages and salaries for the 2013 financial year totalled approximately $9.6m. The total expenses of running the two Ski Areas for the same financial year totalled approximately $24.4m. These values reflect high costs, relative to other similar ski area operations, due to the location, environment and those attributes of operating in a National Park and World Heritage Site.

The required Licence Term at 60 years is pivotal in allowing the Ski Area facilities to be maintained and the necessary ongoing investment in replacing and upgrading assets at the Ski Area to be realised and to provide for long term marketing and planning strategies to be effectively implemented.

RAL proposes that the full 60 year term requested be structured as an initial 30 year term with three 10 year renewals. It is proposed that after the initial 10 years of the licence term that the operation is assessed against the licence conditions and if fully compliant, then the licence will be extended for the first additional 10 year renewal (i.e. to year 40). The same assessment would be undertaken at the next 10 year anniversary (i.e. after 20 years) until the licence is extended to the full 60 years.

It is proposed that the new licence will commence on expiry of the existing licence in 2019.

2.5 Preferential Right to Apply

The Limited Supply Agreement between the Department of Conservation (**DOC**), the Tourism Industry Association and the Ministry of Tourism establishes a preferential right to apply for some existing concessionaires. This can avoid the tender process for some concession applications. The licence application meets the criteria for a limited process as defined in the Limited Supply Agreement. The agreement between DOC, Tourism Industry Association and Ministry of Tourism titled Concession Allocation in Limited Supply Situations, dated July 2008 stipulates the qualifying criteria as follows:

Qualifying Criteria;
To be offered a PRA concession re-issue, an incumbent concessionaire must fulfil the following requirements:

i *Complied with all previous concession conditions on time and as directed;*
ii *No convictions or successful infringement actions taken against the concessionaire under the Conservation and associated Acts; and*
iii *Hold current Qualmark endorsement or equivalent assurance for the activity applied for.*

Re-issued LSC's will be offered for a full term of 15 or 20 years; and longer where significant infrastructure is located on public conservation land. Concessionaires will be able to apply for shorter terms if they wish.

In regards to the criteria, RAL have complied with all current concession conditions and have not been prosecuted by DOC. Qualmark is a relevant endorsement for accommodation but is not directly relevant to Ski Area operations. RAL do however have all safety plans independently reviewed to provide quality assurance.

Accordingly RAL qualifies for the Preferential Right to Apply and the application can be considered on its own – without a tender process for others to apply.

2.6 Planned Upgrades and Replacements

The proposed term of the licence is 60 years and although all changes to the area cannot be predicted, RAL does have forward planning for approximately the next 20 years incorporated within the Whakapapa IDP.

The long term planning for Whakapapa is based on renewal of ageing infrastructure to meet current customer expectations, to improve the recreational experience and to provide for environmental and cultural gains through:

(1) A reduction in the terrain within which large infrastructure is located;
(2) A reduction in the total number of structures throughout the ski area; and
(3) A reduction in the number of facilities that are within the Gift Area.

Extensions to snow making are proposed to provide for the annual variability in natural snowfall and the longer term effects of climate change.

The Whakapapa IDP identifies the following major projects required over the next 20 years to achieve this:

- The Knoll Ridge Express Chairlift is to replace the Knoll Ridge T-bar and Valley T-bar (already authorised by DOC and resource consent granted by Ruapehu District Council). The removal of the Valley T-bar will reduce the width of the area containing large infrastructure and ski lifts in the upper eastern area of the Ski Area. The removal of the Valley T-bar will reduce the number of lifts within the Gift Area (Tuku).
- The Delta Double Chairlift is to replace the Waterfall T-bar which extends into the Tuku (already authorised by DOC and resource consent granted by Ruapehu District Council). The replacement chairlift will be shorter and will not extend into the Tuku.
- The development of the Western Chondola with a top terminal Chalet which will then allow removal of the National and Rockgarden Chairlifts and the West Ridge Kiosk. This West Ridge Kiosk is another structure that will be removed from within the Tuku.

Note: The current IDP was developed in 2011 and shows this Western Chondola extending into the Tuku. Subsequent further review of this planning has resulted in this lift now being shortened such that it will not extend into the Tuku. This also results in the Chalet facility, which will be attached to the top terminal, also being outside the Tuku.

- Relocation of the Far West T-bar to a new location to the east and then rebuilt as the Cornice Bowl T-bar. The replacement lift will be located further towards the centre of the Ski Area than the Far West T-bar is, allowing a further reduction in the width of the Ski Area that contains lifts.
- New chalet facilities and redevelopment at the Top of the Bruce Plaza.
- Snowmaking reticulation to be extended to cover trails on Knoll Ridge (already approved), Tennants Valley, Yankee slopes and West Ridge trails.

The collective proposals outlined above result in the Design Carrying Capacity increasing marginally from 5,010 to 5,130. An additional 60 carparks are to be provided within the general boundaries of the existing car park terrain through more efficient car parking layouts and minor upgrading to the carpark margins and existing modified terrain.

The location and scale of the major upgraded assets, particularly location of chairlifts and chalet facilities and the extent of snowmaking, does not reflect what would normally be regarded as optimum ski area design which would maximise use and benefit from the terrain available. RAL proposed changes reflect the commitment to a ski area operation that acknowledges the overarching conservation and cultural values of Mt Ruapehu. RAL has developed the IDP which will still provide high quality skiing experiences whilst continuing to reduce and mitigate conservation and cultural effects. The facilities proposed will also provide safer and more enjoyable experiences, will meet ever increasing customer expectations and will continue to make a significant and growing contribution to the economic wellbeing of the surrounding communities.

Assessment and final approval of the details of the above proposals will need to be undertaken through the Works Approval and or Construction Management Plan approval process which is undertaken with DOC and Iwi at the time when detailed planning of each project can be undertaken.

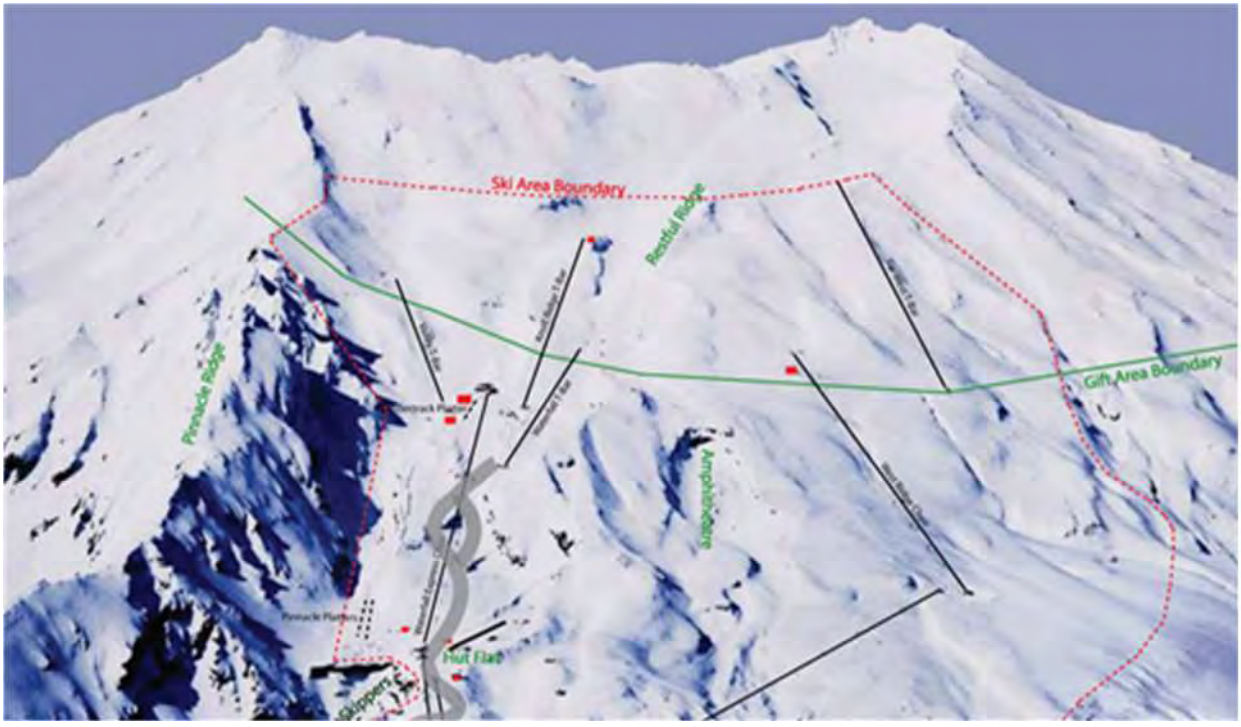


Figure 1 – Existing Infrastructure in the Upper Ski Area

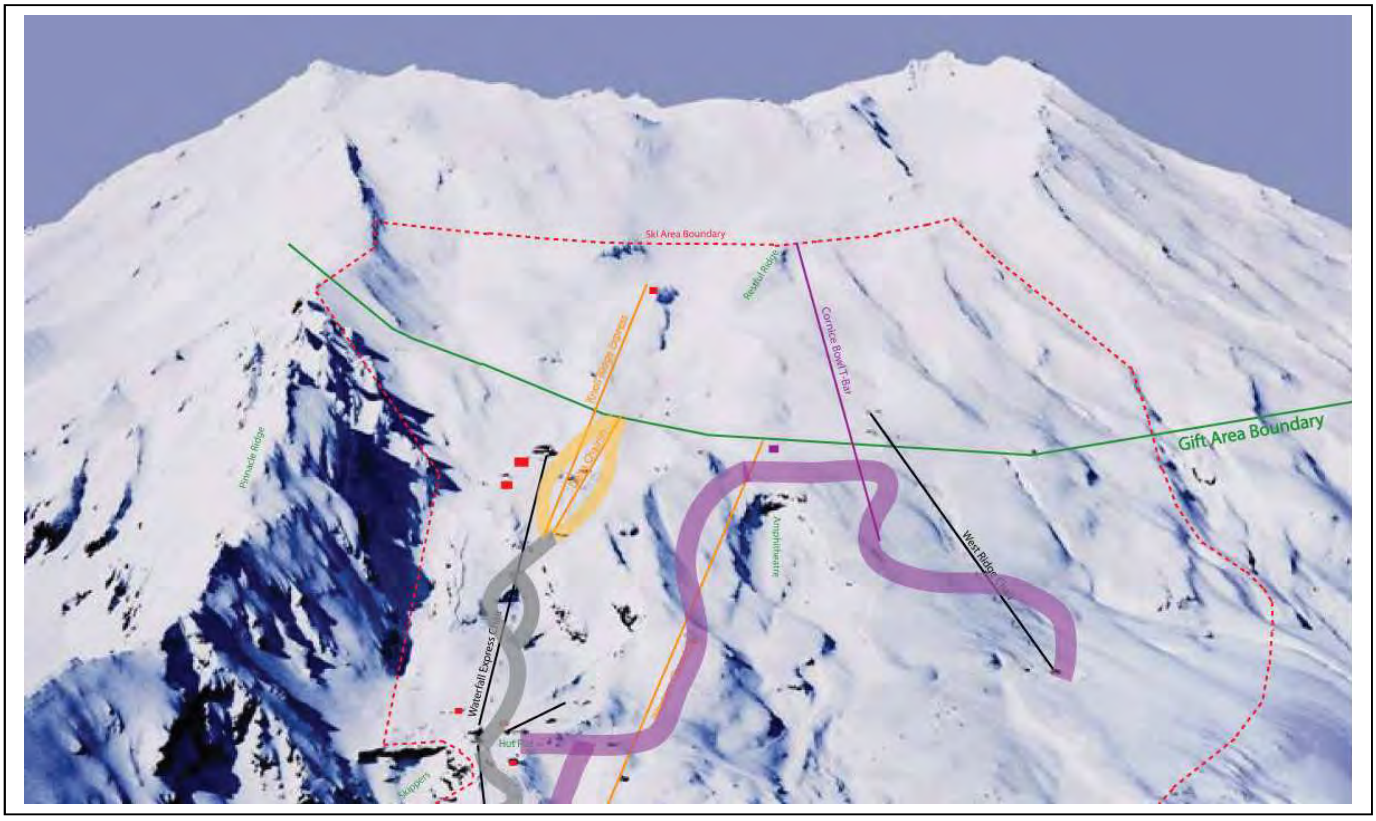


Figure 2 – Proposed Infrastructure in the Upper Ski Area

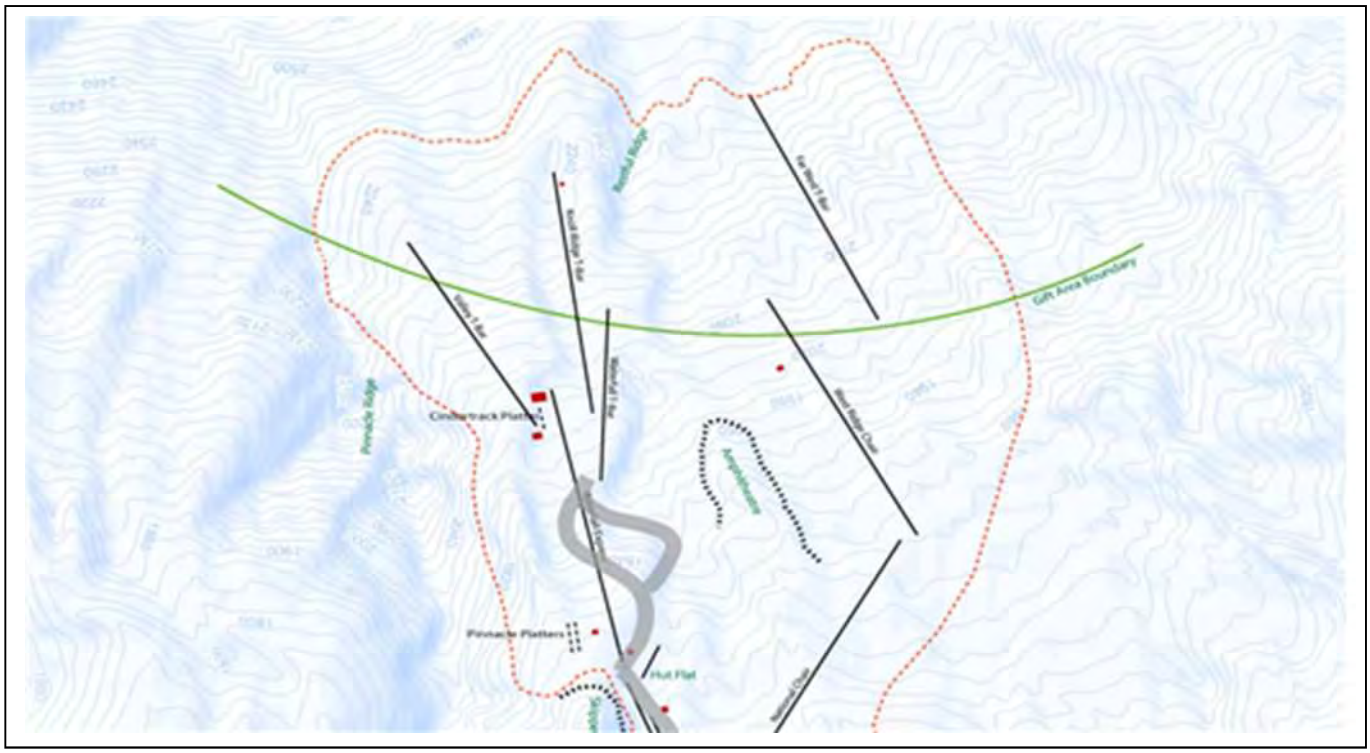


Figure 3 – Plan of Existing Infrastructure in the Upper Ski Area

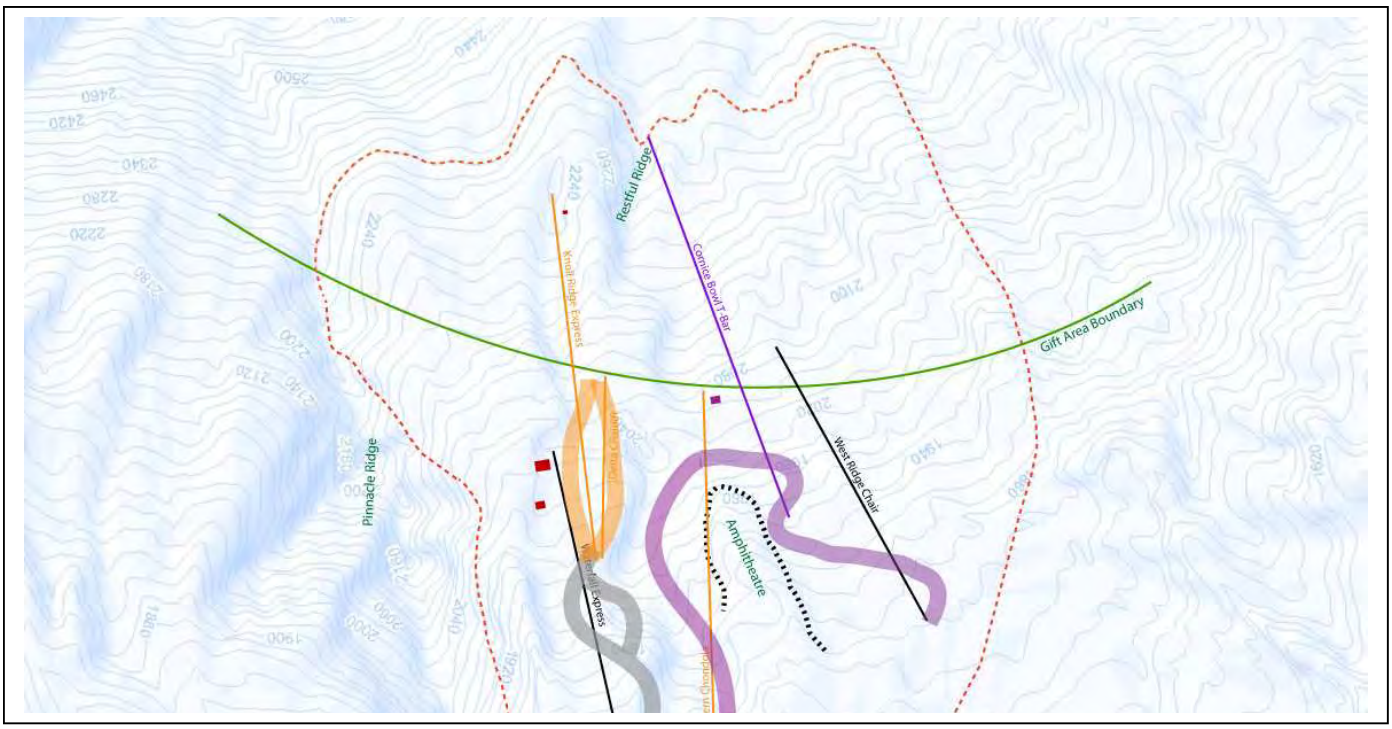


Figure 4 – Plan of Proposed Infrastructure in the Upper Ski Area

2.7 Removal of Redundant Structures

The Whakapapa Ski Area has been occupied by clubs as well as RAL and previous Ski Area concessionaires. The terrain also contains DOC structures. During the past 20 years RAL has removed and not replaced eleven lifts and six buildings.

Removed lifts include:

- National Downhill rope tows x2
- National Downhill T-bar #1
- Meads Wall rope tows x3
- Staircase T-bar
- Hut Flat rope tow
- Pinnacle Platters x2
- Cinder Track Platter

Removed buildings include:

- Downhill Café and Workshops x3
- Staircase toilet
- Hut Flat toilet
- Knoll Ridge Snow School Kiosk

Both Bridge Hut and Meads Wall Café are currently unused for their original purpose and are being considered for removal. RAL have a policy of progressively removing old concrete

foundations, cables etc which have been left over from historic DOC, RAL and previous concessionaires' operations.

The number of fuel storage tanks has also been significantly reduced. The current capacity of bulk storage for diesel located within the ski area totals 52,000 litres which is less than half the storage capacity existing 15 years ago, which totalled 105,000 litres.

RAL will continue to remove redundant structures and unused buildings and removal of the following structures is planned for the next five years.

- Remnant foundations of all redundant structures.
- Removal of the Valley T-bar upon completion of the Knoll Ridge Express Chairlift.
- Removal of the Knoll Ridge T-bar in conjunction with construction of the Knoll Ridge Express Chairlift.
- Removal of the Waterfall T-bar in conjunction with construction of the Delta Double Chairlift.

In addition, the following structures will be removed as part of replacement projects over the next 20 years.

- Removal of the National and Rockgarden Chairlifts and the West Ridge Kiosk in conjunction with construction of the Western Chondola.
- Removal of the Far West T-bar in conjunction with construction of the Cornice Bowl T-bar.

3. RUAPEHU ALPINE LIFTS LTD

The following outlines the company and its staff and aspirations.

3.1 History of RAL

RAL is a public company and was formed in 1953. Any profits made by the company are required to be put back into improving facilities at Whakapapa and Turoa. No dividends or benefits are returned to shareholders. This is expanded on below.

Since inception in 1953 RAL has continued to focus its activities on the improvement and operation of ski areas on Mount Ruapehu. Up until the year 2000, this activity only involved the Whakapapa Ski Area, but with the purchase of the Turoa Ski Area in that year, both Ski Areas are now operated by RAL.

3.2 Company Structure and Key Personnel

RAL is a registered company under the Companies Act 1993 and trades as a Public Benefit Entity. There are 4,200 shareholders who are predominantly keen skiers who made an initial investment during the 1950s. The company constitution precludes any dividend or benefit being provided to shareholders, with all financial surpluses being reinvested into the ski areas. RAL has progressively acquired the interest of other commercial ski operators, the last being Turoa in 2000. Due to the unique constitution of the company all facilities now are operated solely for the benefit of visitors to the Tongariro National Park.

The Ruapehu Alpine Lifts Trust was created in 1983 to protect the interests of the company and its shareholders and to preserve the company's integrity for future generations. This Trust controls 45% of shares on issue. The Trust shareholding and its stated aim of "preserving RAL in its current form", is intended to prevent any individual, group of individuals or organisation being able to action a takeover of the company.

The current Board of Directors includes:

- *Murray Gribben (chairman)*
  Mr Gribben is currently Chief Executive of Crown Irrigation Investments Ltd, a fund established to invest in regional scale irrigation schemes. Prior to his current role he was an Executive Director of Willis Bond & Co, a property development and investment company. He has held a variety of senior roles within the finance sector both in New Zealand and overseas, including Managing Director of AMP Capital Investors. He previously held governance positions including Deputy Chairman of NZ Post Ltd and directorships of Kiwibank Ltd, CS Ltd, Donaghys Ltd and Summerset Group Holdings Ltd. He is currently Chair of the NZ Venture Investment Fund, a trustee of National Army Museum Waiouru and a trustee of NZ Post Superannuation Fund.
- *Duncan Fraser*
  Mr Fraser's professional background is in mechanical engineering and project management. He is currently Managing Director of Acme Engineering Ltd, a long established heavy engineering business based in Wellington.
- *Kerry McDonald*
  Mr McDonald is chairman of Opus International Consultants Limited and BNZ Wellington Partners. He is Deputy Chairman of the NZ Institute of Economic Research, a director of the National Army Museum and member of the Advisory Board of Leighton Contractors Pty Ltd. He has been a director of many companies/organisations including BNZ (Chairman), Carter Holt Harvey, Ports of Auckland and Antarctica New Zealand.
- *Phil Royal*
  Mr Royal is a partner at Price Waterhouse Cooper. He has held directorships and CEO roles with organisations such as Virtual Spectator, Summerset Retirement Villages, Bearing Point and CGNZ.
- *Catherine Savage*
  Ms Savage has extensive experience in the funds management industry, particularity through her role as Managing Director of AMP Capital Investors (NZ) Ltd. She is Chairman of the Board of Trustees of the National Provident Fund and Deputy Chair of The Guardians of the New Zealand Superannuation Fund. Catherine also holds a number of independent directorships which include KiwiBank, Todd Family Office Limited, New Zealand Institute of Chartered Accountants and Pathfinder Asset Management. She is also the Chairman of the Management Board of Samuel Marsden Collegiate School. Catherine is also the Managing Director of Savage Group Limited and CMS Capital Limited and a director of The Griffin Savage Coy Limited.
- *Kevin Stanley*
  Mr Stanley is Managing Director of Stanley Group, a Matamata and Auckland based commercial construction company. Kevin is also a Director of BRANZ.

RAL's Chief Executive Officer Dave Mazey has worked for RAL for more than 25 years. For 10 years prior to this role Mr Mazey worked for the predecessor of DOC. Dave has a Diploma of Parks and Recreation from Lincoln University.

RAL's management staff are highly skilled and experienced with knowledge of the mountain, cultural concerns and ecological values. Most employees are keen skiers with concern for the environment and many employees are of Ngāti Tūwharetoa descent.

3.3 RAL Aspirations

RAL was created, and has now operated for over 50 years, to develop and operate ski areas on Mount Ruapehu for the benefit of the public and to promote snow sports. Whakapapa is the home of RAL and is the site on Mt Ruapehu that the founding fathers of the company, led by the late Sir Bryan Todd, installed NZ's first chairlift. Ski areas are inherently capital intensive operations which require ongoing reinvestment to maintain and upgrade facilities and services to ensure customer expectations can continue to be met and the operations can be sustained in the long term. These investments have long pay back periods and security of tenure for up to the 60 years provided for in the current legislation is essential for the company to have any chance of commercial success.

Advances in technology and design developments have resulted in the modern lifts having higher capacity (fewer lifts are required), are safer, are more user friendly, and operate efficiently for all activities (including skiing, snowboarding and sightseeing). They certainly operate more efficiently and safely than some of the older equipment RAL currently operates.

During the past 15 years RAL has been proactive in reducing the overall effects (environmental, cultural and visual) of historical developments and operating systems that have evolved over the previous 40 years. Examples of this include removal of many old and redundant structures (e.g. National Downhill base area), significant investment in landscaping and replanting programs (e.g. Happy Valley) and most importantly the final elimination of on mountain effluent disposal with the implementation of the reticulated sewage system. This approach of further reducing effects is ongoing and an integral part of all proposals. It demonstrates the commitment of RAL to managing its activities in a manner sympathetic to the natural and cultural landscape in which it operates and to providing full recognition of the World Heritage dual status.

The eruptions of Mount Ruapehu during 1995 and 1996, followed by three years of relatively light natural snow falls through 1997 to 1999, then economic downturns in recent years have combined to cause significant reduction in overall visitor numbers to the slopes.

Visitors to Whakapapa have not grown over the last 10 to 15 years and the Ski Area continues to attract visitors at levels that are 15% to 20% below those levels that were consistently achieved in the early 1990s. To address this significant drop in patronage and relative revenue the company must upgrade the skiing and boarding experience, and in particular, embark on a programme of replacing the old style surface lifts (T-Bars), ideally with detachable express chairlifts or an equivalent.

RAL's commitment to safety and respect for the World Heritage values is reflected in the Company Values shown below:

"Around here we:

- Are customer driven –
  Everything we do should benefit the customer in some way.
- Have fun –
  We are in the business of helping our customers have fun and being a fun place to work, we have fun as employees.
- Keep each other safe –
  Safety is a priority for our customers and staff. The best way to achieve this is by looking out for each other.
- Show respect –
  We show respect for each other, the World Heritage Area we work in and the Gift.
- Are passionate about what we do –
  We love our jobs, the mountain and our business and we want to share this with our customers.
- Walk the talk –
  We don't just talk about it, we do it!"

3.4 Financial Performance

The primary income is from skiing related sales (lift passes, rentals etc.) and is consequently very weather dependent. Other natural events can also affect the profitability of the ski business; such as the 1995 and 1996 eruptions. Nonetheless, RAL have over 50 years' experience managing the Ski Area and have responded to changes in the recreational market in a progressive, adaptable and socially responsible manner.

From the 2012 RAL Annual Report:

> *"The surplus from operations for the year ending 30th April 2012 was $2,237,684; which was a substantial improvement on the $171,412 Deficit in the prior year. Total revenue was up 5.1% ($1,413,647) driven off similar skier numbers to the 2010 winter season. Total operating expenses decreased by 3.8% ($981,368) reflecting the lower operating costs and better cost control. During the year we improved our Cash at Bank position by $2,321,619 and reduced our bank borrowings by $750,000, with term debt ending the year at $5.25m. The strong operating cash flows coupled with the reduced capital expenditure resulted in this lower borrowing and a strengthening of our balance sheet and financial position."*

From the 2013 RAL Annual Report:

> *"The Surplus from operations for the year ending 30thApril 2013 was $1,040,036; which was substantially lower than the $2,237,684 Surplus in the prior year.*
>
> *Suffice to say that despite reasonably good snow conditions throughout the later half of the winter, skier numbers were disappointing with skier days the lowest seen in the last 12 years. We have attributed this in large part to the impact of the rains that fell after the July school*

holidays followed by extended closed periods later in the season when the snow returned. Despite the disappointing skier numbers the financial performance achieved by the company was pleasing on the patronage we received.

Total revenue was down 7.1% ($2,089,373) driven off a 10% decline in skier day numbers compared with the 2011 winter season. Total operating expenses decreased by 2% ($506,788) reflecting lower operating costs and better cost control. During the year we improved our Cash at Bank position by $46,820 and reduced our bank borrowings by $750,000, with Term Debt ending the year at $4.5m. Strong operating cash flows, coupled with reduced capital expenditure, resulted in a strengthening of our Balance Sheet and Financial Position."

This small profit achieved in 2013 could be fully attributed to the company's Turoa operation with the current low patronage levels at Whakapapa inhibiting this ski area from making any meaningful overall contribution to profitability and therefore to the level of funds available for reinvestment

RAL's constitution which invests all surplus back into the Ski Area is unique and provides more certainty of RAL's continued financial viability.

4. SITE DESCRIPTION

4.1 World Heritage Status

Tongariro National Park was inscribed on the World Heritage list in 1990 for its outstanding natural values and then again in 1993 for its outstanding cultural values. The national park therefore has dual World Heritage status. RAL fully supported the applications for World Heritage listing under both criteria. RAL consider that Mount Ruapehu is a unique and diverse volcanic landscape and has particular cultural and spiritual significance for Tāngata Whenua.

It is important to note that the National Park was granted World Heritage status under both World Heritage criteria at a time when the Whakapapa and Turoa Ski Areas were well established on the slopes of Mt Ruapehu. An assessment of the proposal against World Heritage matters is included in the policy assessment appended to this report.

4.2 Cultural Values

Tongariro National Park and in particular the three mountains of Ruapehu, Ngauruhoe and Tongariro includes land of special significance to local Iwi. Land north of the summit of Mt Ruapehu includes the traditional lands of the Ngāti Tūwharetoa tribe and the Ngāti Hikairo hapū.

The nucleus of Tongariro National Park is the three mountain peaks which in 1887 were considered to be gifted to the people of New Zealand by Horonuku Te Heuheu; the then Paramount Chief of the Ngāti Tūwharetoa people. This Gift (Tuku) was perceived by the Crown to be for the people of New Zealand, to be gazetted as a National Park for the use of all people. The Waitangi Tribunal

inquiry final report (2013) found that the Tuku was intended by Ngāti Tūwharetoa to be an invitation for joint management and custodianship of the peaks. However what eventuated was sole ownership and management by the Crown. The upper slopes of Whakapapa Ski Area include much of the intermediate and advanced skiing terrain and occupy part of the Tuku area.

There are a number of other Iwi who have a traditional and close association with Mount Ruapehu. There is currently a wide claim before the Waitangi Tribunal, "National Park Inquiry – Wai 1130", which involves all of these Iwi.

From the Waitangi Tribunal Te Kāhui Maunga National Park District Inquiry Draft Report:

> *"In this region, the mountains dominate the environment so that it is not surprising iwi and hapū formed close spiritual and cultural associations with them.*
>
> *We heard lots of evidence about the peaks being especially tapu and that local Māori rarely ventured up to that area. We should not take this to mean, however, that the mountains as whole entities were not tapu, which the Crown assumed when they drafted the Tongariro National Park Management Plan 2003, making reference only to 'the mountain peaks', which they said, 'are a taonga . . . [and] must be managed in a way that acknowledges and respects their mana and mauri.' To the Māori mind, because mountains are cloaked with chiefly qualities, they are imbued as a whole with a significant degree of tapu and therefore accorded great respect.*
>
> *So highly regarded was Tongariro as a 'maunga tapu', that on four occasions in 1878 Europeans were publicly notified not to go there or else suffer the consequences.*
>
> *Ariki Piripi explained:*
>
> *The maunga are very important to Ngāti Hikairo – not only are our ancestors buried up there but we grew up with them, we grew up beneath the snow. We were living there all the time, using the resources all the time. We knew where to go to find food, how to behave and survive on the mountains, what not to do and how to respect and look after them."*

It is clear that the mountains are of great cultural and spiritual significance to the Iwi affiliated to them. The mountains were not a place of residence for Iwi but were regarded with great reverence and used for hunting birds and collecting plants etc[1] Ngāti Hikairo resided in close proximity of the mountain as evidenced by the original and present day locations of Ōtūkou and Papakai Maraes.

In the past ten years there have been many changes to Ski Area operations, planning and projects, both proposed and implemented, which are intended to mitigate cultural effects. Some have been clearly stated by Tāngata Whenua as having adverse cultural effects (e.g. disposal of effluent) or have been understood by RAL as having adverse cultural effects based on discussions with Tāngata Whenua (e.g. terrain modifications). RAL have responded to these issues in a variety of ways such as the reticulated wastewater system and minimising terrain modification.

[1] From the Waitangi Tribunal Te Kāhui Maunga National Park District Inquiry Draft Report.

RAL responses are discussed in the Environmental Impact Assessment and a Cultural Impact Assessment has been commissioned.

The Tribunal's final report recommends a joint management approach to the mountains and RAL understands the Crown will commence negotiation on the settlement of claims. RAL is comfortable with the concept of Tongariro National Park being managed/administered under a co-governance and/or co-management structure.

RAL will continue to consult and engage with Iwi to develop and cement meaningful, open and effective relationships and to ensure there is ongoing mitigation of all aspects of the Ski Area operation that may cause concern or effect cultural values.

4.3 Physical Attributes

Whakapapa Ski Area is located on the north-west side of Mount Ruapehu. Mount Ruapehu together with Mount Ngauruhoe, Mount Tongariro and surrounding areas forms the 79,598 hectares of the Tongariro National Park. The closest settlement to the Whakapapa Ski Area, other than the Whakapapa Village within the Park, is the township of National Park located approximately 20km from the Ski Area via State Highway 47 and State Highway 48.

The Park contains the only commercial ski areas of the North Island of New Zealand (**NZ**) and at approximately 550 hectares, Whakapapa is one of the larger ski areas in NZ. The Ski Area includes the upper reaches of Bruce Road, the associated carparks, Iwikau Village and the entire ski infrastructure. The Ski Area extends into the Tuku.

More than 40 club lodges are located at Iwikau Village and combined with ski infrastructure and buildings at the Top of the Bruce, this base area terrain is heavily developed with the scale of infrastructure decreasing with increasing altitude. The base area is located at approximately 1,630m asl and the highest lift point is at approximately 2,300m asl, which is the altitudinal limit of the Ski Area.

Due to the high altitude, volcanic rock and harsh climatic conditions, vegetation is generally sparse with less than 5% cover above 2,000m asl. Vegetation is mostly mountain inaka in stonefield.

Mount Ruapehu is the north island's highest peak at 2,797m asl. In summer the upper mountain retains pockets of permanent ice and snow at levels above 2,300m. In winter the snow level tends to be around 1,400m asl.

4.4 Structures and Built Form

Skiing began in the Whakapapa Ski Area in 1913 and the first hut was built in 1923. The ski infrastructure at Whakapapa now is characterised by large parking areas, offices, maintenance areas, rentals, retail and café services, chairlifts, T-bars and other surface lifts within the Ski Area boundaries.

The TNPMP identifies the Amenities Area within the Ski Area, where it is expected that most facilities will be concentrated. The Whakapapa Ski Area currently contains seven chairlifts, four T-Bars and some carpet lifts, rope tows and platters as well as a water reservoir (which is not visible from most locations); administration, café and retail buildings.

There are also 47 club lodges located in the ski area, with all except Ruapehu Hut (New Zealand Alpine Club) and Downhill Ski Club lodge being located within the core Iwikau Village at the road end. It is important to note that all lodges are owned by private clubs and are outside the control of RAL.

In addition to the club lodges, Iwikau Village also contains car parks, public and emergency shelter, medical centre, café, and retail, rental and administrative buildings. Consequently the area is characterised by a dense form of development and modification. The level of built form generally decreases with altitude, with only a few ski lifts at the upper reaches of the Ski Area and relatively few buildings with no vehicle access or parking areas.

4.5 Slope Capacity

The TNPMP identifies the comfortable carrying capacity of the Whakapapa Ski Area as 6,500 skiers per day. The RAL 2011 IDP identifies the current design carrying capacity at 5,010, with planned upgrades resulting in a design carrying capacity of 5,130. A volunteered clause of the licence is to limit the design carrying capacity to a maximum of 5,500, which is less than the 6,500 identified in the TNPMP.

4.6 Natural Values

Generally plant cover in the Ski Area is sparse due to the harsh climatic conditions. Above 2,000m asl the plant cover is generally less than 5%, whilst below 2,000m asl plant cover is approximately 10%. From the TNPMP p205:

> *"The vegetation of Whakapapa Ski Area is generally mapped as mountain inaka (Dracophyllum recurvum) in stonefield. The plant cover above 2,000 metres is generally less than five per cent (and often less than one per cent), while below 2,000 metres it is about ten per cent. The predominant species within the Iwikau Village area appears to be bristle tussock (Rytidosperma setifolia) which prefers sandy/gravel sites.*
>
> *Frost-heave and mud action have prevented widespread plant establishment. Vegetation throughout the ski area is localised and sporadic, typically restricted to sheltered sites such as leeward slopes, bases of lava outcrops and gullies.*
>
> *The principal plant species found within the ski area are anisotome, mountain inaka, bristle tussock, everlasting daisy, gentian, mountain buttercup (two species), mountain daisy, mountain gaultheria, parahebe and shrub senecio."*

A more detailed analysis of plant cover and fauna is provided in the appended Ecological Assessment which considers the area to have relatively low species diversity due to active volcanism. The report also confirms that outside the construction footprint the vegetation in the Whakapapa Ski Area is highly natural and intact with very few invasive species present. Given

that the area has been used for more than 60 years as a Ski Area, it is pleasing to see that the area outside of the modified areas remains in good ecological condition.

4.7 Servicing

All RAL buildings with toilet facilities are connected to a reticulated wastewater system that extends to Whakapapa Village where there is a treatment plant managed by DOC. No effluent is treated on or disposed to the mountain.

A 25,000m^3 water reservoir is located below Happy Valley with the water source being a spring located a further 2km downstream in the Waipuna Valley. The reservoir is used to supply the Ski Area's domestic water demands and for snow making.

Reticulated electricity supply is available throughout the Ski Area and all existing facilities that require electricity are connected to this network (e.g. chairlifts, cafes etc). Generators are only used as emergency backup.

Existing sealed carparks are arranged in terraces providing parking for approximately 1,860 cars and eight buses. RAL operates a free shuttle service between the road end and the lower carparks. The Bruce Road is sealed and in good condition with no changes to the road anticipated for the foreseeable future.

4.8 History of Whakapapa

From the TNPMP:

"Skiing in the park began in 1913 with the formation of the Ruapehu Ski Club. Since then, Whakapapa Ski Area has grown from its very humble beginnings to become the largest ski area in New Zealand. Ruapehu Ski Club erected the first hut in 1923 and the Tongariro National Park Board provided hut accommodation at Whakapapa by 1925. This was followed by the Chateau Tongariro in 1929.

Impetus for development of the ski area came with the construction of the Bruce Road, which reached the Whakapapa huts in 1927, lower Scoria Flat by 1934 and close to the present road end in 1940.

Factors leading to further development from the 1950s to 1960s were the installation of rope-tows and chairlifts and the erection within the park of skiing and tramping club lodges. Lift facilities, access and transport improved.

Ruapehu Alpine Lifts Ltd was granted its first licence in 1953, with others following in 1965 and 1975. A licence issued to Happy Ski Valley in 1965, to operate the beginner/intermediate slope at the base of the ski area, was later transferred to Ruapehu Alpine Lifts Ltd. These licences were re-negotiated into one new licence which will expire in 2019 with a further right of renewal for 30 years following that.

Ruapehu Alpine Lifts Ltd has invested extensively in new lift systems and has undertaken significant upgrades of beginners' areas and base facilities over the past 15 years. This

programme of significant capital expenditure is ongoing: a snowmaking system for the entire beginners' area of Happy Valley and the Rock Garden was installed in 2002.

Club lodge development in and around Iwikau Village began with lodges at Hut Flat. The main building programme, creating what is now Iwikau Village, started in the early 1950s and the final site was allocated in 1968."

5. CONSULTATION

5.1 Department of Conservation

RAL commenced seeking feedback from DOC in September 2012 regarding the licence renewal process, information requirements and timeframes (at that stage this feedback sought was intended only for Turoa Ski Area).

At that time it was understood that the Whakapapa licence would be renewed in 2019 for another 30 years as indicated in the licence. However, in July 2013, DOC made RAL aware that, due to changes in legislation, the 30 year renewal of the licence due in 2019 was not going to be the process that both RAL and DOC had believed it to be. Instead of a simple renewal process, the new understanding was that the process would be the same as a new licence application. Since that time, discussions with DOC staff regarding information requirements and the application process have been ongoing.

5.2 Tāngata Whenua

RAL have been attempting to consult with Ngāti Tūwharetoa and Ngāti Hikairo regarding the Whakapapa licence application with meeting requests since late 2013. In September 2014 Dave Mazey and Steve Mananui of RAL met with Gina Rangi of the Ngāti Tūwharetoa hapu forum working group and Bubs Smith. A meeting between the working group, DOC and RAL and further consultation with the working group is intended. Hui with Tāngata Whenua will also be undertaken as part of the preparation of the Cultural Impact Assessment.

5.3 Tongariro/Taupō Conservation Board

The proposed changes outlined in this application are reflective of the Whakapapa Ski Area 2011 IDP. The IDP was provided to the Conservation Board in 2011 and was discussed at the May 2012 Conservation Board meeting.

At the August 2012 Conservation Board meeting the board conducted a workshop to establish a set of guiding principles to assist the Board in providing comment on Ski Area proposals. The broad principles developed at the August 2012 meeting are:

1. All facilities and day-to-day management within the ski boundary will meet the status of the land (i.e. National Park and World Heritage).
2. The Tongariro/Taupo Conservation Board endorses that the three skifields on Mt Ruapehu are a given.

3. The goal is progressive reduction and removal of infrastructure on the mountain and if required, rationalisation of the amenity area to achieve a reduction in footprint.
4. Ecological values are recognised and actively protected.
5. Cultural values must be recognised and actively protected with Tāngata whenua.
6. Visitor experience will be enhanced so that all visitors leave the Park with the knowledge of historic, cultural and landscape values.

Dave Mazey of RAL presented to the Conservation Board in August 2013 regarding the Whakapapa licence application.

5.4 Ruapehu Mountain Clubs

The Ruapehu Mountain Clubs Association represents 53 member clubs with lodges on Mt Ruapehu (mostly at Whakapapa Ski Area) and with total membership of approximately 20,000 people. The Association has provided a letter of support for RAL's licence application. This is provided in Appendix 6.

6. ENVIRONMENTAL IMPACT ASSESSMENT

6.1 General Assessment

The primary environmental effects associated with the proposed licence to allow the continued operation of the Whakapapa Ski Area by RAL are cultural effects and landscape effects. Other effects include ecological effects, social and economic effects, safety and effects on recreational values.

6.2 Cultural Values

The entire mountain is of great cultural and spiritual significance to the Iwi affiliated to it and the mountain is subject to a Treaty claim. The National Park is also recognised for its cultural values through the World Heritage status. From the Waitangi Tribunal findings, the mountains are described as having mauri and are understood to be a symbol of identity (and used in formal introductions). It is acknowledged that all the claimants have a spiritual connection with the mountains.

RAL have engaged Chris Winitana to prepare a Cultural Impact Assessment for the licence application. Through a DOC officer, RAL received a recommendation from the Ariki (Paramount Chief of Ngāti Tūwharetoa) for Mr Winitana to undertake the Cultural Impact Assessment. The completed Cultural Impact Assessment is due by the end of February 2015.

RAL acknowledge the inherent concern of Tāngata Whenua around the use of the mountain and the following is a summary of the approach and everyday practices employed in response to this and the respect held for cultural values.

Over the years, RAL has changed many aspects of its projects to demonstrate respect for the cultural significance of the mountain. All human effluent is now removed from the mountain for treatment and disposal. This was done out of respect for Tāngata Whenua and their cultural values.

Cultural effects are a key consideration for every RAL proposal and proposals for terrain modification and new structures are kept to absolute minimums as a result. An IDP is produced by RAL periodically for the Whakapapa and Turoa Ski Areas as a requirement of the TNPMP. The draft IDPs are provided to Tāngata Whenua for comment. Over time the scale of intended development on the mountain reflected in the IDPs has been significantly downscaled. The downscaling of RAL's development intentions is in part, out of respect for the cultural values of the mountain. The form of the current IDP has been extensively shaped through RAL's consultation with Iwi and RAL understanding of cultural impacts.

The previous Valley Express proposal (replacement of the Valley T-bar with a chairlift) has been abandoned due to cultural concerns. At the time it was understood that Iwi opposition to the Valley Express proposal was due to the proposed chairlift extending further into the Tuku (Gift Area) than the T-bar does and that Tāngata Whenua would not support further encroachment into the Tuku. As a direct result of these views RAL re-thought the proposal and found that they could remove the Valley T-bar if the Knoll Ridge T-bar is replaced with a chairlift (the Knoll Ridge Express). The Knoll Ridge Express Chairlift would replace the existing T-bar to the same elevation within the Tuku, but no further into the Tuku and with the added benefit of removing the Valley T-bar from the Tuku. RAL anticipated that this proposal would provide an upgrade to customer services while achieving a reduction in cultural and landscape effects. Tūwharetoa Māori Trust Board and Ngāti Hikairo provided neutral submissions to the resource consent application for the Knoll Ridge Express proposal. Subsequent to the resource consent process and during the works approval process, Ngāti Hikairo advised DOC that they oppose the proposal as the Knoll Ridge Express Chairlift will extend into the Tuku area.

Currently there are five ski lifts that extend into the Tuku area; however the strategic planning for Whakapapa is to reduce this to three through proposed renewal and replacement projects. Due to the layout, terrain and altitude of the Ski Area, the complete removal of all lifts from the Tuku would severely compromise Whakapapa's financial viability as much of the advanced ski terrain can only be accessed from lifts in the Tuku. Accordingly RAL have proposed to reduce the number of lifts in the Tuku in order to mitigate adverse cultural effects of the existing infrastructure as much as is practicable. The current long term planning is for renewal and replacement projects to allow for the reduction from five to three lifts in the Tuku and the Western Ridge Kiosk will be removed from the Tuku and replaced with a structure outside of the Tuku. These proposals have been specifically designed to mitigate cultural values.

Operational changes at the Ski Areas have also occurred to accommodate the values of Tāngata Whenua. Examples of changes and support include:

- Sponsorship is provided to the Matariki celebration held in the Turoa base area in recent years.
- Kura Kaupapa skiing and snowboarding activities, the Snow Board squads and snow academies which provide opportunities for youth and adults to learn ski and snowboard skills.

- RAL supports work programs and pre-employment training to enhance the likelihood of employment within the company's operation.
- Strong support from RAL is provided to all local primary and secondary schools for skiing and snowboarding. This support improves the accessibility to the ski areas for all children and youths.
- To engender respect for the mountain, presentation of cultural values and the significance of the mountain to Iwi is an integral part of all RAL staff induction programs.

Tāngata Whenua have expressed interest regarding safety on the mountain. RAL have robust health and safety practices in place and in the event of a serious accident in the Ski Areas Iwi are notified immediately so that karakia and other cultural protocols can be performed.

RAL are willing to undertake whatever action is necessary to mitigate cultural effects whilst still maintaining a viable Ski Area. The Cultural Impact Assessment is intended to provide an improved understanding of the RAL activity to Ngāti Tūwharetoa and Hikairo, provide RAL an improved understanding of cultural values and effects, develop the relationship between Tāngata Whenua and RAL, document the cultural significance of the locality, identify potential effects on cultural values and identify methods to avoid, remedy or mitigate adverse effect on cultural values. RAL is of the belief that the cultural significance of the mountain necessitates a close, continuous relationship between Tāngata Whenua and RAL at governance and management levels in order to foster understanding that will provide more effective mitigation of adverse effects and allow more opportunity for beneficial effects.

6.3 Landscape Values

The TNPMP discusses landscape values. From TNPMP p206:

"A landscape study was carried out in 1986, based on an earlier landscape report of 1979. Both studies included an assessment of the natural landscape and the impact of ski area development on that landscape in both winter and summer conditions. The studies evaluated the landscape implications of alternative development options and produced guidelines for future site and building developments.

Whakapapa Ski Area follows a well-defined landscape boundary along its eastern edge. Te Herenga Ridge, Meads Wall, Whakapapa Valley and Pinnacle Ridge are all strong landscape elements. Te Heuheu Valley and ridge further define the upper limits of the ski area. The ski area can be divided into three broad landscape areas: the area east of Delta Ridge and Hut Flat, the area west of Delta Ridge and Hut Flat, and the area above Knoll and Restful ridges. The long remnant lava flow making up Delta Ridge essentially splits the present ski area in two. The eastern side can be described as a 'feature landscape' with abundant landmarks and landscape focal points. The area to the west is panoramic with relatively weak boundary definition.

The area above 2,300 metres becomes constricted by the Te Heuheu and Paretetaitonga ridges. Two tails of the Whakapapa Glacier feature here. Because of its altitude this area offers spectacular views out from the mountain and highlights the juxtaposition of Mounts Ruapehu, Ngauruhoe, and Tongariro. Absence of human development, however, is the most distinctive characteristic. This provides an important contrast to the other two areas where ski area

elements dominate the landscape. For many visitors to the park, this area is their only experience of a relatively unmodified high altitude alpine area.

Vegetation at lower altitudes of the ski area is heavily threatened by intensive development. In places the loss of this vegetation has been accepted by the department if an extensive restoration planting programme has been proposed following major works. The restored sites and a number of other vegetated sites remain under threat where management controls are not in place.

Areas exhibiting a high degree of natural landscape diversity and therefore likely to be regarded as having high visual interest in comparison to adjacent areas are Whakapapanui Gorge, Pinnacle Ridge, the Amphitheatre, Te Heuheu Ridge and Whakapapa Glacier.

The principal conclusions and recommendations of the 1986 landscape study as it relates to existing developments were:

- *In general, the impact of most ski area development is localised within the ski area although some structures are visible from some distance;*
- *Ski area development has resulted, however, in concentrated areas of highly modified landscape to the detriment of landscape values in adjacent areas;*
- *An absence of landscape planning is reflected in the poor integration with the landscape of developments such as car parks, buildings and structures;*
- *Development to date has resulted in a broad band of modified landscape to an altitude of 2,250 metres. Within this existing band, opportunities exist for further provision of facilities without significantly reducing visual quality, either from within or beyond the ski area.*

Buildings and ski lifts owned by RAL, as well as non-RAL club buildings, have the potential to affect the landscape values of the area. The mountain landscape is vast however and therefore generally accommodates relatively large structures.

In recent years buildings have been designed to blend into the summer landscape as much as possible by the use of appropriate colours, materials and design elements. This addresses the concern in the 1986 study regarding poor integration between the landscape and buildings. The last replacement project at Whakapapa was the Knoll Ridge Chalet which received ten architectural accolades.

Large scale earthworks can also be of concern as actual or potential effects can be long term in alpine environments compared to other landscapes. Rock in the locality weathers very slowly and changes colour through the weathering process. Hence if large areas of rock are blasted the area can be visually distinctive from natural rock due to the homogenous size and different shade of the modified rock. Accordingly, in recent years RAL have adopted the practice of limiting any blasting required for site works and replacing large rocks on the completion of works with the weathered side up to maintain a natural appearance. RAL have also pursued the technique of rock pining tower foundations where terrain is suitable, which significantly minimises the area of disturbance.

The strategic planning for Whakapapa provides for renewal and replacement projects to narrow the terrain within the upper mountain slopes that contains ski lifts. This will have a positive effect for

landscape values and an assessment from an experienced and qualified landscape architect is enclosed at Appendix 5. This narrowing of the area that contains lifts addresses the issue noted in the above excerpt from the TNPMP regarding a broad band of modified landscape within the Ski Area. The appended landscape and visual effects assessment concludes that:

> *"overall the landscape and visual effects of the proposed developments will be no more than minor when considered in the context of the existing landscape and visual environment. The reduction in the total number of lifts and the location of new lifts within a narrower corridor through the central ski area terrain will provide for some improvement or reduction, in the overall landscape and visual effects."*

Recent RAL practices have also responded to issues regarding vegetation affected by development. In conjunction with DOC, RAL have developed successful methods to harvest vegetation prior to construction and rehabilitate the area with the harvested plants on completion. RAL have also gone beyond this, as demonstrated in Happy Valley, where in excess of 7,000 tussocks have been grown from local seed and then planted – improving ecological and landscape values.

Overall, in recent years RAL has responded well to enhancing the landscape values which is now an essential and normal process incorporated within all facility upgrade projects.

6.4 Ecological Values

The alpine environment creates unique ecology. The altitude, associated harsh climatic conditions and soil/rock conditions of the Ski Area make it difficult for vegetation to become established and as a general rule, vegetative cover diminishes as attitude increases. Snow cover during the ski season reduces and mitigates the potential adverse effects of human activity in the Ski Area by protecting plants from trampling. A number of methods have been employed at the Ski Areas in response to the ecology of the area as discussed below.

The provision of onsite fuel storage can potentially result in adverse ecological effects. Accordingly the tanks are double skinned and staff are trained in the correct handling and fuelling of machinery to avoid accidental spills. Emergency spill kits are also available onsite.

Following the accidental diesel spill at Turoa Ski Area in 2013 RAL commissioned an independent review of all storage and use of diesel in order to identify ways of further reducing the risk of contamination from an accidental spill. The initial report confirmed that the structures in place in 2013 were compliant with all regulations. RAL are also undertaking consultation with the community, Tāngata Whenua, DOC, Community Board and Councils as part of the review process.

The number (and overall volume) of fuel storage tanks has been significantly reduced over the years. Currently at Whakapapa Ski Area there are eight permanent fuel tanks with a combined capacity of 52.5m^3. In the last six years three tanks with a total capacity of 95m^3 have been removed (and a total of eight tanks have been removed since 1989 from the Whakapapa Ski Area). Accordingly the risk of spills and the severity of environmental damage from a spill have been significantly reduced. Another important aspect of this risk management is the total size of

individual tanks. Previously the tank at Iwikau Village was the largest at 50m^3 and this has been removed and replaced with a 30m^3 tank. Other existing fuel tanks in the Whakapapa Ski Area are significantly smaller at 10m^3 and 2.5m^3. Accordingly the risk has been significantly reduced by RAL.

Site works have the potential to result in adverse ecological effects and construction methodology has evolved over the years to mitigate potential adverse effects. Standard practices for RAL site works now include:

- Avoiding areas of high ecological value (such as flush areas) and avoiding streams and their margins;
- Harvesting vegetation prior to works and replacing vegetation at the completion of works;
- Undertaking rehabilitation planting (e.g. Happy Valley tussock planting), which is additional planting in an area (more than the harvesting and replacement planting described above);
- Erosion and sediment control practices during works;
- Steam cleaning equipment prior to entry to the Park to avoid the introduction of invasive weeds;
- Use of specialised machinery (such as tracked diggers);
- Identifying machinery routes to work sites in conjunction with DOC staff prior to works commencing;
- Limiting the area of disturbance and taping off the area of disturbance;
- Over-snow transport of equipment and materials where possible (e.g. the removal of the High Flyer towers over snow at Turoa in 2012).

Any future site works will still need to be authorised by DOC in conjunction with Iwi through the assessment of a detailed Construction Management Plan and Works Approval process.

A preliminary assessment of the ecological effects of RAL's long term plan is appended and concludes that:

> *"The vegetation and natural character of the Whakapapa Ski Area is highly natural outside of the development footprint. RAL's management of the Whakapapa Ski Area is highly cognisant of the environment and its vulnerability to impacts. Guided by the Tongariro National Park Management Plan's policies, RAL's management practices avoid or mitigate most environmental impacts while operating the Ski Area on Mt. Ruapehu. RAL's management seeks to be adaptive and constantly improve how the Ski Area is operated and recommendations suggested in this report will further improve this. I am therefore of the opinion that the current high condition of the majority of the Whakapapa Ski Area is directly attributed to the combination of good planning and a conscientious operator. Assuming that future management and development is undertaken in a similar fashion, in general environmental impacts are likely to be minor and acceptable within the parameters set by the Tongariro National Park Management Plan.*

The report identifies recommendations to further enhance RAL's efforts to improve the ecological value of the Ski Area. The recommendations include:

- Additional vegetation enhancement in Happy Valley – RAL completed vegetation restoration in Happy Valley to the satisfaction of DOC and the planting has been successful.

- Nonetheless the ecological assessment recommends further planting to provide additional enhancement.
- Heather control – Heather is a weed prevalent in some areas of the Tongariro National Park and is not thought to be caused by the Ski Area operations. The weed has started to creep into the lower reaches of the Ski Area and although heather control is not a current responsibility of RAL, RAL has considered the recommendation and is willing to work with DOC to achieve an efficient and effective control plan.
- Summer trail monitoring – the report notes that summer activities are resulting in minimal impact on vegetation and soils except in some localised small areas. The report recommends monitoring of high use summer trails, erecting more signs to direct walkers to the track and remedial action undertaken if excessive damage is occurring. RAL accepts this recommendation, although the damage from summer use is currently not caused by RAL operations. Summer visitors to Meads Wall have increased following the filming of the site in The Lord of the Rings movies.

In regards to the recommendations of the ecological assessment, none of the recommendations are currently areas which RAL have responsibility for. The suggested additional planting in Happy Valley is above and beyond that which DOC required of RAL. Heather control is not a current responsibility of RAL and the spread of heather has not been caused by RAL operations. Likewise, the maintenance of the summer trails are not a current responsibility of RAL. The report and the recommendations, when considered in the context of RAL's current responsibilities, demonstrate that RAL is meeting its ecological obligations at Whakapapa Ski Area.

Overall, RAL operate in a unique and ecologically sensitive environment where damaged vegetation is slow to re-establish on its own. RAL have responded to the ecological values of the locality and in conjunction with DOC, have established robust methods of managing effects during construction. In addition, RAL propose to undertake additional enhancement works in Happy Valley and at the Meads Wall trail, heather control, a review of fuel storage and monitoring of summer trails.

6.5 Recreational Values

Whakapapa and Turoa are the only commercial ski areas in the North Island of New Zealand. The benefits of the ski area to North Island skiers, snow boarders and mountain climbers are significant and obvious. During winter the ski area provides access and facilities (such as bathrooms, cafés, retail, medical services, transport, parking, and hazard management) for non-skiers such as sight seers and families wishing to play in the snow. In the North Island, few places experience snow and accordingly winter access to the area is a significant island-wide benefit. Mt Ruapehu and the top of Mt Taranaki are the only true alpine environments in the North Island[2].

The ski area provides for other recreational users outside of the ski season also. During summer, the Whakapapa Ski Area remains open with some café and lift facilities still operating for sight seers and hikers. Patronage at the visitor accommodation at Whakapapa Village is high in summer due to the number of hikers which traverse the Tongariro Crossing, and short walks available in the ski

[2] TNPMP (2006-2016) DOC page 35

area contribute to the activities on offer to summer visitors. Guided hikes are also available during summer within the ski area.

The proposed lift upgrades are mostly replacement of T-bars with chairlifts. T-bars are only of use during snow cover and only for skiers or snowboarders. Chairlifts however can be used all year round and by any person able to sit in a chair. As well as sightseeing, the chairlifts are used in summer by hikers. Chairlifts are considered a safer form of transport compared to T-bars. Accordingly, the upgrades will provide safety benefit to skiers and will provide benefit to non-skiers by improving access to the higher alpine areas of the licence area. As the upgrades are replacements within the existing ski area boundaries, there are no adverse impacts on recreational values – such as affecting pristine areas.

Chairlifts can provide transport to members of the public that would otherwise be physically unable to access the mountain beyond the road end and therefore provides a valuable facility for all persons. Appreciation for nature often requires experience with it – hence the provision in the National Parks Act 1980 for public benefit, use and enjoyment. The Act also provides for the public to have freedom of entry and access to national parks, so that the public may receive the inspiration, enjoyment, recreation, and other benefits that may be derived from mountains and other natural features[3]. This demonstrates the importance of access to the Park which the proposed licence supports. Hiking tracks throughout the Park provide for able bodied persons to experience the natural beauty, indigenous fauna and flora and natural quiet of the Park. For others whom are not as physically able, the ski areas provide the only facilities that provide the necessary access to allow an experience of physical connection with the mountain. Consequently, the recreational opportunities provided by the proposed licence are significant to all persons.

6.6 Social and Economic Effects

The Ski Area clearly provides a valued recreational facility. The Ski Areas of Whakapapa and Turoa attract approximately 400,000 Visitor days to the region each year. Not only is the Ski Area valued for its snow activities but also for summer activities which are currently tramping and sightseeing.

The Whakapapa Ski Area provides employment for approximately 400 persons during winter and 30 persons outside of the winter ski season. The Ski Area is the primary tourism industry in the district and supports local retailers, visitor accommodation, cafes etc. in the wider locality. The 2002 Economic Impact Study of the Ski Areas[4] concluded that *visitors to Mt Ruapehu also have an important downstream impact on the North Island economy. The expenditure diary shows that almost as much money is spent prior to departure and during the travel phases as is spent on the mountain and surrounding towns…For every $1M of tourism expenditure 47 local jobs are created.*

From the Price Waterhouse Coopers 2014 report titled Lifting the Region The economic benefits of the Ruapehu ski-fields (appended to this application):

[3] National Parks Act 1980 section 4 principles to be applied in National Parks

[4] NZ Tourism Research Institute, Auckland University of Technology, Mt Ruapehu Ski-fields: An Economic Impact Study, March 2002

*RAL employs and an average of 257 direct full-time equivalent workers (**FTEs**) on an ongoing basis and contributes $15m to local GDP from on the mountain operations. During the ski season, the number of workers on the mountain is closer to 700. Because many of these jobs are seasonal, the calculations in this analysis have been converted into annual figures.*

As visitors to the mountain purchase goods and services from other local businesses, an estimated 460 FTEs are employed off the mountain in accommodation, retail, restaurant and other tourism related businesses and an additional $20m is contributed to local GDP.

As money from the ski-fields flows around the local economy, it supports further employment among suppliers of tourism businesses (upstream) and as tourism workers spend their incomes (downstream). In total, the ski-fields support more than 880 FTEs on an ongoing basis in the region. This is equivalent to 16% of Ruapehu District employment.

The importance of RAL's role in supporting local job creation is heightened by the fact that unemployment in the Ruapehu District is approximately one percentage point higher than the national average. RAL is a key contributor to regional tourism and recreational industries – industries which are proportionately larger employers for the region than for wider New Zealand.

From the IDP:

For many years RAL has worked with a variety of local agencies and organisations to assist with pre-employment programs which provide the opportunity for individuals to develop the skills and knowledge such that they are stronger applicants for employment at the ski areas. There have been many staff engaged and still working for us, who have participated in these programs. RAL is very keen to further develop these opportunities.

The great majority of local schools, including those for general population plus Kura and Kohanga Reo schools, have active school based skiing participation programs. These are subsidised by RAL with the support offered to Kura and Kohanga Reo being at a higher level than that offered to the main stream schools.

RAL will continue to support ongoing participation programs targeted at offering local youth the opportunity to further experience skiing and snowboarding outside of the specific school programs. The Tūwharetoa Snowboard Squad which has now operated for many years is an example of this support.

Although economic effects are not considered by DOC, the social and community benefits provided by RAL's operations cannot be denied. The economic benefits undoubtedly support social and community benefits. RAL, as a company that does not pay dividends to shareholders, and has been operating in the locality for more than 60 years, has a strong focus on community assistance with involvement in the pre-employment programs and scholarships and funding and discounts to various school groups.

6.7 Public Safety

The mountain contains many potential hazards such as eruptions with lahar flows, avalanches, exposure due to terrain and climatic conditions and injury. RAL maintain and abide by a

comprehensive safety management system. The Mountain is a naturally hazardous area and risks are managed through the following methods:

- Avalanche
  RAL operates a Snow Safety program to continuously assess the snow pack and manage any avalanche risk.

- Eruption
  The Eruption Detection System was established by DOC and RAL and provides an early warning system in the event of volcanic activity. RAL's Safety Management System deals with all risks and contingency plans for evacuations in the event of eruptions and the Ski Area boundaries are outside of the Summit Hazard Zone. If a volcanic eruption does occur, an audio alarm will sound from a series of speakers located around the ski area, at the same time a message is sent to Ski Area Managers.

- Lahar paths
  The main lahar paths and associated risks is a key consideration for strategic planning on replacement of lifts and infrastructure. The Far West T-bar is in a location which adjoins a lahar path and it is proposed to relocate the lift into the Cornice Bowl terrain which will significantly reduce the risk from lahars. The Eruption Detection System will set off sirens and loudspeakers to direct ski area users away from valley floors to higher safe ground.

- Exposure and Injury
  RAL promotes responsible behaviour on the slopes, provides warning signage where appropriate and invests in education such as the Avalanche Awareness Courses which are run in conjunction with the Mountain Safety Council. RAL also provide safety signage throughout the Ski Area to warn of potential hazards (such as nearby cliffs). Extensive information is available on the RAL website including maps to allow visitors to familiarise themselves with the area prior to arriving. For those few persons who do sustain injury Whakapapa has a ski patrol service, medical centre with emergency and X-ray facilities to provide treatment and a high level of care.

All buildings, lifts and associated structures are fully compliant with codes of practice and relevant legislation which is confirmed with annual certification and inspections.

6.8 Climate Change

RAL have considered the potential effects of climate change and was involved in the snow industry commission of NIWA to undertake an assessment in 2010; The Potential Impact of Climate Change on Seasonal Snow Conditions in NZ (2010).

RAL are not intending on seeking an extension to the upper limits of the Ski Area and will manage the potential effects of climate change through snowmaking and other associated snow management techniques.

The existing snow making systems includes a water reservoir and reticulation system which enables coverage on Happy Valley, Meads Wall, Rockgarden, Hut Flat, Staircase and Waterfall trails to an altitude of 1,900m asl at the base of the Waterfall T-bar. The 25,000m^3 reservoir is located at the

bottom of Happy Valley with replenishment of water to this reservoir being from a spring located a further 2km downstream in the Waipuna Valley. Pumping stations are located at the reservoir and at Hut Flat.

It is proposed that within the next 20 years snow making will be extended to other areas of the Ski Area. This is an adaptive way of managing the effects of climate change and avoids the need for an extension to the upper reaches of the Ski Area boundaries.

6.9 Quality of Visitor Experience

New competition in the recreational market has prompted RAL to continue to improve the quality of the visitor experience at the Ski Areas. RAL continuously strives to provide a range of services such as skiing and snowboard hire and lessons, lessons specifically for children, café and retail offerings, free shuttle service, all year round sightseeing experiences, guided walks e.t.c. RAL are also planning to provide winter childcare services at Whakapapa in the future.

In recent years RAL has switched from targeting higher daily visitor numbers to providing an enhanced quality of experience for visitors. Improved services, including more comfortable lifts and decreasing queue times, will enhance the experience and is expected to generate increased patronage on midweek days when capacity exists.

RAL also strives to achieve a high quality of built form. The recently completed Knoll Ridge chalet (which replaced the Knoll Ridge chalet that was destroyed by arson) was designed by HB Architecture to have a strong relationship with the landscape with minimal visual impact. This building received the following accolades:

- NZ Architecture Medal Finalist 2012
- New Zealand Architecture Award 2012 - Commercial Architecture
- NZIA Local Architecture Award 2011 - Commercial - Western Architecture Awards
- NZ Timber Design Award 2011 – Commercial Architectural Excellence – Highly Commended
- National Winner - RMB 2011 Commercial Project Awards 'Tourism & Leisure Project' Category
- 2011 Supreme Award - Waikato RMB 2011 Commercial Project Of The Year
- Category Winner - Waikato RMB 2011 'Tourism & Leisure' Project
- Gold Reserve Finalist - RMB 2011 Commercial Project Awards 'Tourism & Leisure Project' Category
- Life Member Award - Waikato RMB 2011, Construction Excellence In Workmanship, Creativity And Innovation
- Tourism & Leisure Property Award - Merit 2012 Tourism & Leisure Category Property Council NZ

RAL is committed to upgrading a number of T-bars to chairlifts in the interests of visitor safety and improved comfort and amenity. The upgrade proposals have also integrated landscape and cultural considerations.

6.10 Summary of Effects

The Ski Area provides significant economic, social and recreational benefits to the wider region and supports various school and Iwi ski groups. RAL provide a high quality visitor experience and

upgrade proposals will provide an improved level of service whilst responding to landscape and cultural values as much as practicable. RAL operates under a strict Safety Policy with various methods for managing the numerous hazards on the mountain.

RAL has a proven history of being responsive to cultural, landscape and ecological values, and although adverse cultural effects cannot be fully mitigated or avoided, the intent is to reduce them wherever practicable. RAL are committed to implementing every action possible that will mitigate cultural effects whilst maintaining a viable Ski Area and this is reflected in the long term plan to undertake infrastructure upgrades that will allow the reduction in ski lifts in the Tuku area from five to three. A Cultural Impact Assessment has been commissioned and is expected to be completed by the end of February 2015.

As a public benefit entity and a long term licensee, RAL seek to operate in a manner that is environmentally responsible and which provides support to the community. Indeed, RAL actively seek and implement improvements in design and operation of the Ski Area in order to minimise cultural, visual and ecological effects.

The long term plans for Whakapapa Ski Area have been assessed by qualified and experienced experts in ecology and landscape and visual impacts. The impacts of the proposals in regards to visual, landscape and ecological effects are avoided, remedied or mitigated by various techniques including:

- Reducing the number of lift facilities in the Tuku from five to three.
- Narrowing the terrain that contains ski lifts, especially on the upper slopes.
- Buildings will be sited and designed to lessen visual impact.
- Avoiding areas of high ecological value (such as streams and flush areas).
- Implementing sediment and erosion control during construction.
- Harvesting plants and replanting for site rehabilitation.
- Steam cleaning of equipment prior to arrival on site to prevent the introduction of invasive weeds.
- Enhancement planting (e.g. Happy Valley).
- Monitoring of effects on summer trails.
- Supporting DOC in implementing heather control on the slopes of the mountain.

Overall, RAL has proven itself to be a responsible operator and the planned changes at Whakapapa Ski Area have been designed in response to the expectation of customers, cultural values and landscape values. Construction will be undertaken in an ecologically responsible manner and additional ecological enhancement is proposed.

7. POLICY

Appended to this report is a detailed policy assessment of the licence application against the various relevant policy documents. The TNPMP and the World Heritage Status are deemed the two most important policy considerations relevant to the processing of the licence application. The assessment finds that the proposed licence is provided for in the TNPMP. The TNPMP not only

provides for the Ski Area but recognises the benefits of RAL operating both the Whakapapa and Turoa Ski Areas.

The TNPMP was written in accordance with its governing legislation and policy documents including the National Parks Act 1980, Conservation Act 1987, General Policy for National Parks 2005 and the Conservation Management Strategy. Consequently, the licence is also well aligned with these statutes and policy documents. The licence is also supported by DOC's Destination Management Framework.

RAL have successfully responded to the challenges of operating within a World Heritage site and operate in a manner that befits the area's status. Overall, the appended assessment finds that there are no policy reasons to decline the licence application and policy support for the proposal exists.

8. CONCLUSION

Approval is sought for a licence for RAL to continue operating the Whakapapa Ski Area for 60 years. The term sought is commensurate to the level of investment in infrastructure that is required in the Ski Area and to the long periods necessary to achieve a commercial return on these investments. The proposal is consistent with the TNPMP which provides for the Ski Area whilst remedying, mitigating and avoiding adverse effects. The TNPMP provides for the Ski Area and also recognises the benefits of RAL operating both the Whakapapa and Turoa Ski Areas. The mountain has dual World Heritage status and the values it is recognised for are incorporated into RAL operations and the future upgrade proposals.

RAL have over 60 years' experience operating at Whakapapa and have adapted to the cultural, ecological and landscape values of the mountain. RAL provide a quality visitor experience and the Knoll Ridge Chalet which gained architectural accolades is an example of RAL's commitment to quality.

The mountain is taonga to Tāngata Whenua and subject to a Treaty claim. RAL's long term planning for Whakapapa includes replacement projects for existing ski lifts with a net reduction from five to three ski lifts in the Tuku Area. A Cultural Impact Assessment has been commissioned and is due for completion by the end of February 2015.

Currently ski lifts are spread over the Ski Area and although there is a need to retain adequate access to the full ski area terrain, RAL have proposed renewal, upgrade and replacement projects that allows the terrain containing ski lifts to be narrowed which will provide beneficial effects on the landscape and reduce the number of lifts in the Tuku. These infrastructural upgrade projects will require investment to value in excess of $60 million during the next 15-20 years. The long term planning also involves the extension of snow making infrastructure which addresses the potential effects of climate change without change to the Ski Area boundary.

Overall, the continued operation of RAL as the concessionaire at Whakapapa Ski Area is consistent with the TNPMP, the relevant legislation and the World Heritage status. RAL are

committed to the continued improvement of the Ski Area from a recreational experience perspective (including providing for safety), as well as in terms of cultural values, ecological values and landscape values.

We certify that the information contained herein is in accordance with the requirements of the Conservation Act 1987.

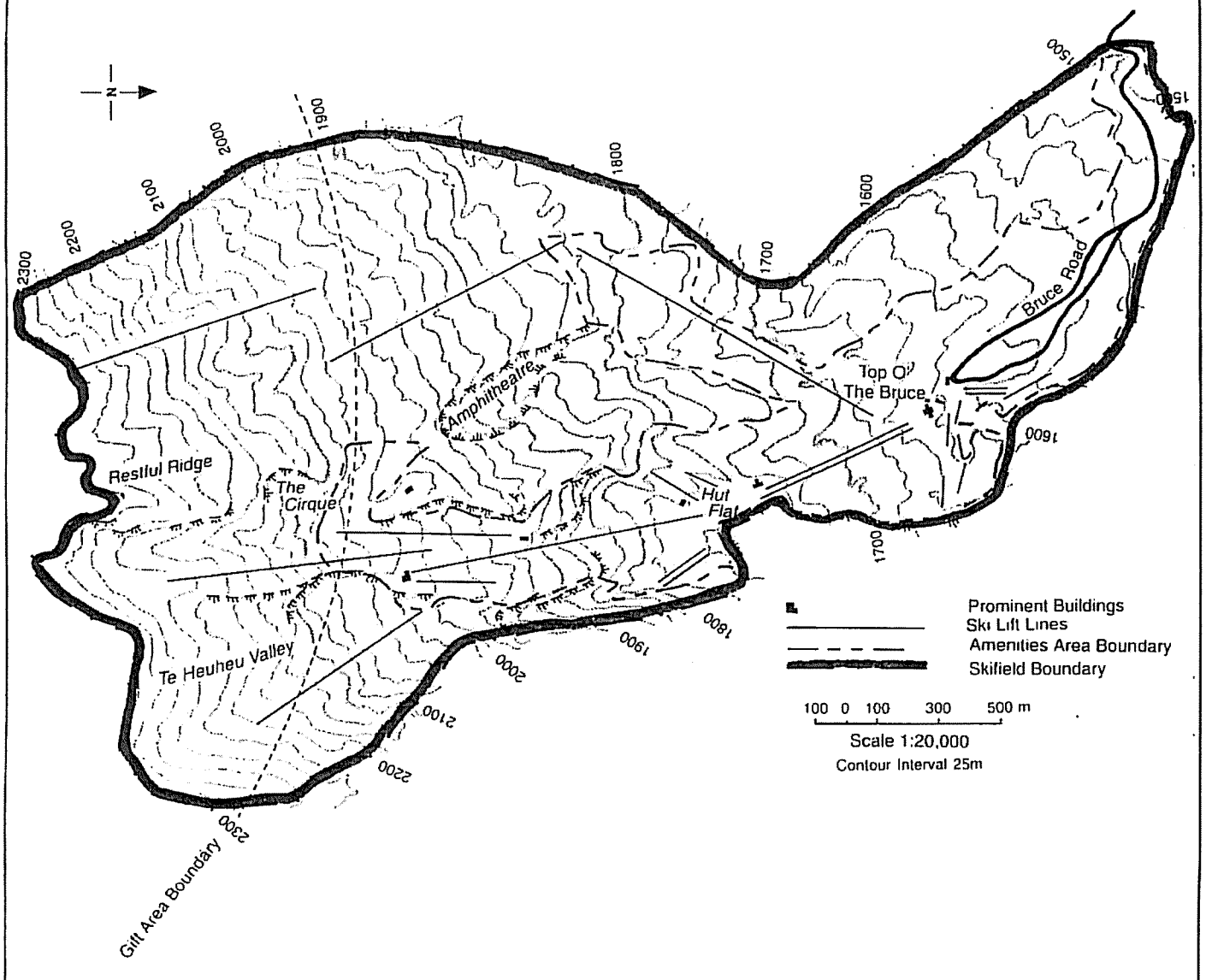
Signed: ....

Murray Gribben
CHAIRMAN
RUAPEHU ALPINE LIFTS LTD

Dave Mazey
CHIEF EXECUTIVE OFFICER
RUAPEHU ALPINE LIFTS LTD

Appendix 1

License Area Plan



Skifield Licence

Name: Ruapehu Alpine Lifts Ltd

Term:

Expires:

Area: 500 Ha

Legal Description: Whakapapa Ski Area, Mt Ruapehu

Cons Unit Name: Tongariro National Park

Cons Unit No: 60011

Local Authority: Ruapehu District Council

Land District: Wellington

NZMS 260: T20

Scale: 1:20,000

Aerial photo:

Number:
Date:

File Ref: COC 012

Department of Conservation
Te Papa Atawbai

Appendix 2

Cheal Consultants Policy Assessment dated October 2014

Ruapehu Alpine Lifts Ltd

Whakapapa Ski Area, Mt Ruapehu

Application for Licence Renewal – Policy Assessment

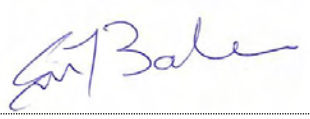
2011-057
24 October 2014

Ruapehu Alpine Lifts Ltd

Whakapapa Ski Area, Mt Ruapehu

Application for Licence Renewal – Policy Assessment

Prepared by:



Ella Tennent-Bacher
Cheal Consultants Senior Planner

Reviewed and Approved for Release by:

Cameron Drury
Cheal Consultants Hawkes Bay Manager

Date:	24 October 2014
Reference:	2011-057
Status:	Final
Revision:	NA
Previous Revision Date:	Draft provided 10 March 2014

TABLE OF CONTENTS

1. INTRODUCTION

Ruapehu Alpine Lifts Ltd (**RAL**) is applying for a new licence (and lease) to continue to operate the Whakapapa Ski Area within Tongariro National Park. A separate report outlines the details and effects of the proposal. A suite of policy documents and legislation are relevant to the licence application and are considered below. Potentially most important are the Tongariro National Park Management Plan (**TNPMP**) and the World Heritage status considerations.

Below is an assessment of each relevant policy document in the following order:

1. TNPMP 2006-2016.
2. Tongariro Taupo Conservation Management Strategy (**CMS**).
3. Tongariro Whanganui Taranaki CMS.
4. General Policy for National Parks 2005.
5. National Parks Act 1980.
6. Conservation Act 1987.
7. DOC Destination Management Framework.
8. World Heritage Status.

Direct quotes from the respective documents are shown in *italics* in textboxes.

A Cultural Impact Assessment has been commissioned by RAL which will include consideration of relevant iwi planning documents such as the Ngāti Tūwharetoa Environmental Iwi Management Plan.

2. TONGARIRO NATIONAL PARK MANAGEMENT PLAN 2006-2016

The TNPMP was prepared by the Department of Conservation (**DOC**) under the National Parks Act 1980 and prescribes the management intentions for the Park over a ten year period.

3.1 Key Management Philosophies

1. To protect Tongariro National Park in its natural state in perpetuity

This principle is drawn down from the National Parks Act 1980 and is at the heart of National Park planning globally.

Tongariro National Park is a place of national and international significance. Its outstanding natural and cultural values must be protected even though protection may at times be in conflict with other community aspirations.

Comment:

The TNPMP is the primary tool for protection and management of the Park and it provides for the Whakapapa Ski Area. RAL's long term planning for the Ski Area allows for a reduction in the area that contains ski lifts and structures and various methods of avoiding, minimising and mitigating

adverse effects. The Ski Area forms a small part of the Park and through the TNPMP it has been deemed that it is appropriate in its legislative context.

2. To manage Tongariro National Park consistent with conservation legislation and General Policy.

The management of Tongariro National Park must be consistent with its overarching legislation, the National Parks Act 1980 and where relevant, the Conservation Act 1987 and legislation identified in its schedules and the General Policy for National Parks 2005.

A large number of ad-hoc relevant strategies and guidelines are taken into account during the development of this plan and in day-to-day management of the park.

Comment:
The proposal and the TNPMP are consistent with the National Parks Act, Conservation Act and General Policy for National Parks.

3. To protect the taonga - the peaks of Tongariro National Park

The mountain peaks are a taonga, a gift to the people of New Zealand from the Tūwharetoa people. They must be managed in a way which acknowledges and respects their mana and mauri. World Heritage status recognises the park's cultural heritage: co-operative conservation management must protect them.

That early gift by the people of Tūwharetoa reinforces a sentiment felt by many New Zealanders towards their protected places and in particular the peaks and landscape of Tongariro National Park, which are so much a part of New Zealanders' lives.

Comment:
The Ski Area terminates at 2,300m above sea level (**asl**) and does not extend to the peaks of Mt Ruapehu but does encompass some of the Gift Area (Tuku Area) which commences at approximately 2,080m asl. The long term planning for the Whakapapa Ski Area includes the removal and replacement of lifts in the Tuku Area – reducing the number of lifts in the Tuku from five to three. RAL seek to recognise the cultural value of the mountain whilst allowing the use and enjoyment of the park for recreational purposes.

4. To ensure World Heritage obligations are met and given effect to.

Tongariro National Park was among the first sites in the world to receive World Heritage status for both its natural and cultural heritage. With this international recognition comes an obligation to protect those values in the face of global scrutiny.

The New Zealand Government is committed to maintaining those core values.

Comment:
The TNPMP protects the values of the park. The proposal is assessed in this report against both the Operational Guidelines for Implementation of the World Heritage Convention and the original nomination for World Heritage Status.

5. To give effect to the principles of the Treaty of Waitangi

The Crown has a statutory requirement to give effect to the principles of the Treaty of Waitangi in its management of public conservation lands. Through a process in the 1990s these principles were established for the Tongariro/Taupo Conservancy. They apply particularly to Tongariro National Park and must be given force through this plan.

The implementation of He Kaupapa Rangatira, a framework and protocol for giving practical expression to the partnership with Iwi, will ensure tāngata whenua have an evolving and ongoing role in the management of the park.

There is a strong synergy between the Treaty principles and the broader conservation philosophies applied to park management.

Comment:
The He Kaupapa Rangatira has not been finalised. However for each project RAL undertakes consultation with Tangata Whenua as does DOC. RAL's operations and planned upgrades have been shaped by consultation with Tāngata Whenua. Although RAL recognise that adverse cultural impacts cannot be avoided in entirety, RAL have sought to mitigate cultural impacts as much as practicable, particularly in relation to the Tuku Area. The planned renewal projects are designed to provide upgrades that facilitate a net reduction in the number of ski lifts in the Tuku Area. A Cultural Impact Assessment has been commissioned.

6. To provide for co-operative conservation management.

The Department of Conservation cannot manage public conservation lands without a relationship with tāngata whenua.

The relationship between the Crown and Iwi will be exercised within the park through co-operative conservation management.

The implementation of He Kaupapa Rangatira, a framework and protocol for giving practical expression to the partnership with Iwi, will ensure that Iwi and hapū have an evolving and ongoing role in the management of the park.

Be it in decision making processes for use of cultural materials, the reintroduction of previously present bird species, the consideration of concessions which may impact on cultural values or the development of further park guidelines or strategies, Iwi will be involved.

Comment:
He Kaupapa Rangatira is still being developed however it is expected that Iwi and hapū will have involvement in the licence application. A Cultural Impact Assessment has been commissioned and is due by the end of February 2015.

7. To provide for public enjoyment of natural and cultural heritage

This principle, also at the heart of the National Parks Act 1980, is demonstrated through the management of an extensive visitor infrastructure which caters for a range of experiences consistent with the park environment.

The department is frequently reminded by the visitor community of the importance of protecting the park's natural values so they may be enjoyed for all time. Historically some of those values have been traded off, particularly at sites where visitors spend a short period of time, in order to provide a park experience for those unable to enjoy more remote locations.

Managing the associated tension is a significant challenge facing park managers who have at heart the notion that the New Zealand outdoor cultural heritage should be recognised and consistent with good conservation practice, be made available so that New Zealanders may experience these magical places.

Comment:
A key aspect of public enjoyment is access to and utilisation of the area concerned. The Whakapapa and Turoa Ski Areas are key visitor facilities, in terms of the natural and cultural values of the area, the Ski Areas occupy less than 2% of the total lands of Tongariro National Park.

The wider National Park maintains a high level of naturalness and Ski Areas are limited to the three existing Ski Areas (Whakapapa, Turoa and Tukino). The proposal is supported by philosophy 7 above *To provide for public enjoyment of natural and cultural heritage* and the extent of the Ski Area boundaries is considered to represent an appropriate balance between use and preservation of natural and cultural values.

8. To protect the ancestral, historical, archaeological and cultural landscape of Tongariro National Park

The cultural heritage of the park cannot be divorced from its natural values. The relationship between Māori and the land is spiritual and physical.

Historical and cultural heritage within the park is primarily associated with Māori cultural values and usage, the establishment of the park during the late 19th century, the use of the park for tramping, hunting and skiing, railway related activities and the early timber-milling industry. Historic features include archaeological sites, tracks, roads, buildings, bridges and memorials.

The protection of these sites is provided for in legislation.

Comment:
The long term planning for Whakapapa is to undertake renewal projects that allow the number of lifts currently within the Tuku Area to be reduced. RAL are supportive of initiatives to recognise cultural heritage, such as through displays of artwork within the Ski Area, Matariki celebrations etc if such concepts are agreeable to Tāngata Whenua. Potentially the Cultural Impact Assessment may identify other appropriate ways to recognise cultural values.

9

9. To reflect the values of the park partners in management

Tongariro National Park is managed by the Department of Conservation for the people of New Zealand. At the core of park management is the interaction between communities of interest and the environment. Many of the park's partners, non-Government organisations, research institutions, and universities, along with groups set up specifically to protect the park, play an ongoing role in its management.

The partnership with Māori is specifically reflected in principles 5 and 6. The contribution of many hundreds of people and tens of thousands of hours of volunteer time per annum reflects a deep affinity for this special place.

Comment:
Key partnerships in the Ski Area are between Tāngata Whenua, DOC, RAL and the mountain clubs. Written support from the Ruapehu Mountain Clubs Association is appended to the licence application. Māori values have shaped the form of RAL renewal proposals and the Indicative Development Plans.

10. To minimise infrastructure to that essential to provide for visitors' benefit, use and enjoyment of the park

The park is managed for its natural and cultural values. In order to maximise benefits to the park visitor, a level of infrastructure is provided, allowing for a range of experiences. From the intensity of ski areas with their associated buildings, lifts, car parks and crowds to the natural quiet and simplicity of remote areas like Hauhungatahi, a range of infrastructure meets visitor needs.

It has become clear, however, that a point is reached where the park experience is compromised by infrastructure. Infrastructure must be maintained at present levels and in places it must be reduced and disturbed sites restored. Management to ensure the ongoing protection of essential park values is paramount.

Comment:
The long term plans for Whakapapa are to reduce the number of lifts in the Tuku Area through upgrade and replacement projects. RAL have removed 11 lifts and 6 buildings during the last 20 years. The existing infrastructure is considered the minimum in order to provide for visitors and some structures are below the visitors' expected level of service. Infrastructure is kept to a minimum and future plans are modest due to the Ski Area's location in a National Park, due to the cultural values of the site and the dual World Heritage status. Accordingly the proposal is considered consistent with key management philosophy 10 above.

Section 4.4.1 Concessions General
Objectives

a To process all applications for concession proposals in accordance with the relevant legislation, statutory planning instruments and objectives and policies of this plan.

b To ensure concessions avoid, remedy or mitigate any adverse effects, including cumulative effects, and maximise any positive effects on national park values.

c To minimise infrastructure to that essential to provide for people's benefit, use and enjoyment.

Comment:

The proposal is considered consistent with the objectives and policies of the TNPMP and avoids, remedies and mitigates adverse effects through various means. The licence provides for recreational opportunities and the ensuing positive effects on the Park's recreational values in accordance with objective b. Some adverse effects are avoided by RAL's downscaling of development plans. Adverse cultural effects are mitigated by plans to reduce the number of structures within the Tuku and the proposed staggered term of the licence. A Cultural Impact Assessment has been commissioned. Landscape and visual effects are remedied and or mitigated by a number of methods such as careful location choice for large infrastructure, colour and material selection for buildings and structures, and replacement / upgrade proposals that narrow the area containing large structures. Some landscape and visual effects are also avoided through avoidance of visually prominent locations and topographic or geological features of high scenic value.

Potential ecological effects are avoided through avoidance of ecologically significant areas. Potential ecological effects of upgrade projects will be mitigated through the control of works. The ecological effects of the licence including the proposed projects have been assessed by Nicholas Singers and his conclusion states:

The vegetation and natural character of the Whakapapa Ski Area is highly natural outside of the development foot print. RAL's management of the Whakapapa Ski Area is highly cognisant of the environment and its vulnerability to impacts. Guided by the Tongariro National Park Management Plan's policies, RAL's management practices avoid or mitigate most environmental impacts while operating the Ski Area on Mt. Ruapehu. RAL's management seeks to be adaptive and constantly improve how the Ski Area is operated and recommendations suggested in this report will further improve this. I am therefore of the opinion that the current high condition of the majority of the Whakapapa Ski Area is directly attributed to the combination of good planning and a conscientious operator. Assuming that future management and development is undertaken in a similar fashion, in general environmental impacts are likely to be minor and acceptable within the parameters set by the Tongariro National Park Management Plan.

Further assessment of the effects in included in the application report, section 6.

RAL considers the infrastructure proposed is essential to provide for people's benefit, use and enjoyment of the area.

Policies

2. In assessing and making recommendations on concession applications, the department should seek information on and consider the following:

- *Whether the activity can be conducted outside the park;*

Comment:

The activity cannot be undertaken outside of the National Park due to the altitude and topography required for the Ski Area and also significant infrastructure is already established on the site.

- *Whether the activity can be conducted in an amenities area;*

Comment:

Some of the Ski Area is an Amenities Area and the entire area for which a licence is sought is designated as a Ski Area. The proposed upgrades cannot be entirely located within Amenities Areas but will be within the Ski Area boundaries. An assessment is included below in response to Policy 4.

- *If skiing-related, whether the activity can be conducted in the Whakapapa or Turoa amenities areas;*

Comment:

The activity includes skiing and is at the Whakapapa amenities area (and the wider Ski Area).

- *Whether the activity will benefit the park, public use and enjoyment or safety;*

Comment:

The activity will clearly benefit the public use and enjoyment of the Park. RAL have robust safety policies with ski patrols and medical services and is the key facilitator of snow sports in the North Island. The proposed upgrades will improve safety.

- *Whether the activity will have an effect on indigenous plants and animals, natural features, scenic values, sites of historical or cultural interest, on soil stability, on water quality and the natural state of the park;*

Comment:

Various methods are proposed to provide for ecological values including construction management and ecological enhancement with additional planting in Happy Valley and heather control within the Ski Area. Further detail is provided in the ecological assessment from Nicholas Singers appended to the application. Scenic values are provided for with the proposal to narrow the width of the area affected by ski lifts and to reduce the number of ski lifts in the Tuku from five to three through renewal and replacement projects. This is also relevant in terms of cultural effects given the cultural significance of the Tuku and a Cultural Impact Assessment has been commissioned. No adverse effects on soil stability and water quality are anticipated. Wastewater is removed from the Maunga to a DOC owned and operated wastewater treatment plant.

- *What effect the activity will have on other park users, natural quiet, other activities already taking place in the park or the ability of staff to manage the park;*

Comment:
The Ski Area activity is already established with compatible users located nearby (clubs at Iwikau Village and accommodation at Whakapapa Village). The activity provides for a variety of recreational activities such as skiing, sightseeing and hiking. Each upgrade proposal is carefully planned to consider other park users, avoid peak visitor times when practicable and ensure public safety. The policy is under the general objectives and a different level of amenity (including noise) is anticipated within the Ski Area. The natural quiet of the wider Park environment, and particularly the pristine areas, is not expected to be affected by the proposal. Furthermore, RAL's over snow vehicles are modern and noise output is reduced compared to earlier models. This was recognised in the last partial review of the TNPMP which provided for over-snow passenger transport services.

- *Whether the activity is consistent with the reasonable demands of existing legitimate public usage;*

Comment:
Public use will not be limited by the proposal and the Whakapapa Ski Area is provided for as a legitimate use in the TNPMP. It is the RAL operation that enables the public patronage referred to.

- *Whether the activity will have national or regional benefits;*

Comment:
The Ski Areas have regional and national economic, social and recreational benefits. The Turoa and Whakapapa Ski Areas are the only commercial ski areas within the North Island. The Ski Area infrastructure also provides access to the upper alpine environment allowing less able bodied persons to experience an environment that would be otherwise inaccessible to them. Access to the environment often promotes conservation amongst the public.

- *If further development might result from the activity and if so, what impact that further development might have on the park and on park users;*

Comment:
Any future development will be limited to the current Ski Area. The long term plans will have a positive effect on landscape values and will reduce the number of lifts in the Tuku Area. Construction effects will be carefully managed and a detailed Construction Management Plan will be required for any future works.

- *Whether the applicant is well-enough equipped − in terms of expertise and finance, for example − to carry through and complete the proposal in a safe and proper manner;*

Comment:
RAL has more than 60 years' experience operating at Whakapapa and has the appropriate expertise and financial management to operate in a safe and proper manner. Recent replacement projects (such as the Knoll Ridge chalet) have demonstrated RAL's commitment to investing in high quality infrastructure and architectural design – appropriate for the environment.

- *The impact of the activity on cultural values; and*
- *The views of iwi, obtained through consultation by the department.*

Comment:
Although RAL consider that the viability of the Ski Area would be severely compromised if all infrastructure in the Tuku were to be removed, RAL has seriously considered the cultural impact of structures within the Tuku. As a result, RAL have proposed to reduce the number of lifts in the Tuku from five to three through renewal projects in order to reduce adverse cultural effects. RAL has also implemented other methods of trying to mitigate cultural effects, such as proposing a staggered term for the licence, incorporating cultural values into the staff induction programme, sponsorship of kura kaupapa etc. The full views of Tāngata Whenua are expected to be disclosed through consultation during the application processing and a Cultural Impact Assessment has been commissioned.

3. *Protocols under He Kaupapa Rangatira will be established to ensure appropriate iwi participation in the consideration of concession applications (also refer to section 4.1.2 He Kaupapa Rangatira).*

Comment:
He Kaupapa Rangatira has not been completed yet, however it is anticipated that DOC will seek Iwi participation. Also RAL have commissioned a Cultural Impact Assessment and consultation with Iwi regarding the licence application has commenced.

4. *Concessionaire infrastructure should be limited to that essential to visitors' benefit, use and enjoyment of the park. Where concessionaire infrastructure is necessary it should be located within an amenities area, with the exception of skiing-related infrastructure that complies with provisions in section 5.2 Ski Area Policies.*

Comment:
The majority of infrastructure is located within the Amenities Area and infrastructure is limited to that essential to visitors' benefit, use and enjoyment of the Park. Accommodation for staff is located further down the mountain outside of the Ski Area boundaries. RAL have removed and not replaced 11 lifts and 6 buildings during the last 20 years. The TNPMP recognises that ski lifts are required outside of the Amenities Areas and the proposed renewal projects are consistent with the TNPMP. The planned renewal projects include the following:

- Relocation of the Far West T-bar (currently outside the Amenities Area) towards the Knoll Ridge ski lift, effectively narrowing the area of the upper mountain that contains ski lifts. The proposed location for the relocation is still outside of the Amenities Area as the Amenities Area does not extend to the western upper slopes of the mountain, hence the TNPMP allows for ski lifts outside the Amenities Area.
- Replacement of the Knoll Ridge T-bar with a chairlift, approximately half of which is outside the Amenities Area.
- Removal of the Valley T-bar which is mostly outside the Amenities Area and extends into the Tuku.

- Replacement of the Waterfall T-bar with the Delta Double Chairlift. The existing T-bar and proposed chairlift are wholly within the Amenities Area. The existing T-bar extends into the Tuku and the proposed chairlift will terminate prior to the Tuku boundary.

The proposed Western Chondola will replace the National Chairlift (within the Amenities Area) and Rockgarden Chairlift (within the Amenities Area). The Western Chondola is proposed through the centre of the Ski Area and is approximately 40% within the Amenities Area and 60% outside of it.

The Amenities Area currently extends outwards to the west surrounding the National chairlift which will be removed. The Amenities Area is shown in the figure below.

From the plan below it is clear that the upper west area of the Ski Area cannot be accessed without ski lifts extending outside of the Amenities Area. This existing situation indicates that the Amenities Area was not created to control the location of ski lifts. This is further reinforced in policy 2 of 5.2.1 of the TNPMP which makes a specific exception for ski lifts outside of the Amenities Area.

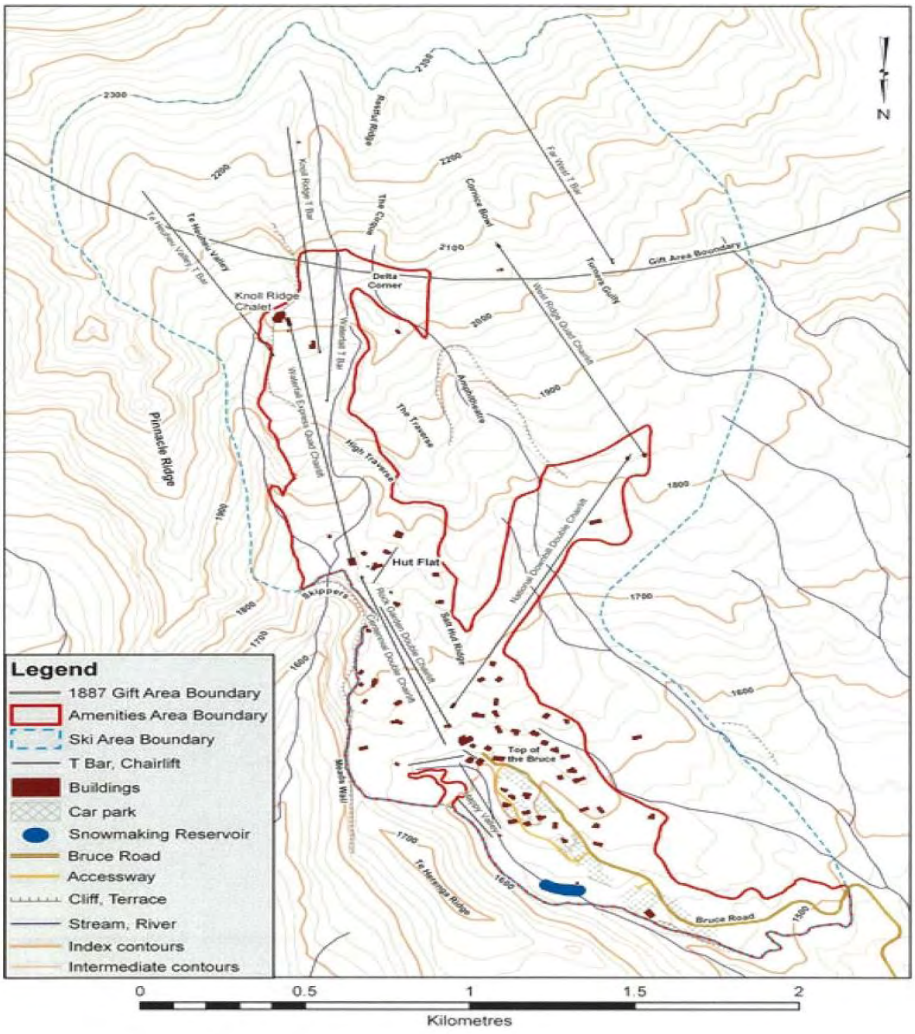


Figure 1 – Whakapapa Ski Area boundary (dashed blue line) with Amenities Area boundary (red line)

5.	*Concessionaires and their clients may share facilities such as huts on a first-come, first-served basis with other visitors but should not be given exclusive use of any facility.*

Comment:
The use of DOC huts is not proposed.

6.	*Concession activity should be monitored in order to ensure that the activity is consistent with the conditions of that concession and with this plan and in order to inform future management decisions.*

Comment:
It is expected that monitoring will continue and will be a clause of the licence, if granted.

7.	*Where the cumulative effects of concessionaire activity have an adverse impact on the park or on the experience of park users, further applications for that activity should be declined.*

Comment:
The activity has a positive effect for recreational park users. The Ski Area is provided for in the TNPMP. RAL is committed to doing everything practicable to mitigate cultural effects whilst maintaining a viable Ski Area. Landscape and ecological assessments have confirmed that RAL operates in a responsible manner in these regards.

8.	*Concessionaires will be responsible for the safe conduct of their operations, including the safety of their employees, clients and contractors.*

Comment:
RAL operates with a comprehensive safety policy and conditions of the licence regarding safety responsibilities are anticipated.

9.	*The reasonable costs of processing, consultation and monitoring should be recovered from applicants. Not for profit activities should incur processing, consultation and monitoring costs.*

Comment:
DOC costs of processing, consultation and monitoring are expected to be charged to RAL.

The TNPMP contains specific objectives and policies for concessions for various activities including guiding, club accommodation, events, public transport, aircraft, advertising, filming, electricity transmission, grazing. Specific consideration of Ski Area licences is included in Section 5.2 of the TNPMP and that section of the TNPMP is discussed below.

5.2.1 Management of Existing Ski Areas
Objectives

a To maximise the recreational experience of skiers in Tongariro National Park through the highest quality ski area operation.

Comment:
In order to meet market demands RAL provide the highest quality operation through providing a variety of all year round recreational activities, services for all customer types (e.g. families, overseas tourists, youths e.t.c), high quality amenities and a high level of customer service. The upgrades outlined in the License application are to meet the expectations of visitors and are supported by the above Objective.

b To assess future development and growth of ski areas against the overriding constraints of preserving natural resources and historical and cultural heritage of the park.

Comment:
No extension of the existing Ski Area boundaries is sought. The effects of climate change have been considered by RAL and future planning, including snowmaking and snow management, addresses these effects.

The TNPMP identifies the comfortable carrying capacity of Whakapapa Ski Area as 6,500 skiers per day. RAL's current design carrying capacity is significantly below this at 5,010 and with the proposed upgrades it marginally rises to 5,130. Accordingly the future development and growth is not expected to exceed the comfortable carrying capacity of the TNPMP which takes into account the constraints of preserving natural resources.

The cultural heritage of the Park is more difficult for RAL to comprehensively provide for. RAL is confident however that the Ski Area can continue to function with a reduced number of lifts in the Tuku (reduced from five to three) with the proposal put forth by RAL for renewal and relocation of ski lifts. A Cultural Impact Assessment has been commissioned which may recommend other ways of mitigating cultural effects.

c To minimise the adverse effects of ski area operations within ski areas.

Comment:
RAL minimise the adverse effects of ski area operations with a variety of techniques including:

- Employee training includes ecological and cultural values;
- Construction and design methods to minimise landscape, ecological and cultural effects;
- Implementation of the comprehensive safety policy;
- Waste management;
- Removal of redundant structures;
- Ecological enhancement (e.g. in Happy Valley).

d	*To ensure that the operation of ski areas does not adversely affect the experience of park visitors, the natural landscape, and the biophysical environment beyond ski area boundaries.*

Comment:
The Ski Area facilitates the use of the Park by visitors. The natural landscape is considered in detail for each proposal with assessments from qualified and experienced landscape architects. The operation does not have an adverse effect on the biophysical environment beyond the Ski Area boundaries.

e	*To ensure tāngata whenua have opportunity for input into the development and management of the ski areas.*

Comment:
RAL have sought Tāngata Whenua comment in development of the IDP and for each project including this licence application. Further consultation is intended and a Cultural Impact Assessment has been commissioned. RAL is committed to fostering a close, continuous relationship between Tāngata Whenua and RAL at governance and management levels in order to enhance understanding that will provide more effective mitigation of adverse effects and allow more opportunity for beneficial effects and Tāngata Whenua involvement.

f	*To limit the effects of large-scale development and intensive use to existing amenities areas.*

Comment:
Large scale development, such as carparks and most buildings are limited to existing amenity areas. Ski lifts are located both inside and outside of the Amenities Areas as provided for in policy 2 below. No new intensive or large scale developments are proposed. Lifts proposed are replacement proposals.

Policies

1. *Facilities and services appropriate for downhill skiing will be restricted to three ski areas as defined by the boundaries shown on Map 11 Turoa Ski Area, Map 12 Whakapapa Ski Area, and Map 14 Tukino Ski Area.*

Comment:
The proposal does not seek a new Ski Area and is therefore consistent with policy 1 above.

2.	*All major infrastructure including ski-lifts, buildings, car parks, roads, and other major earthworks, should, wherever possible, be located within the amenities areas at Whakapapa and Turoa in order to avoid or mitigate environmental impacts and protect the park in its natural state. To provide for skiing within ski areas, exceptions may be allowed for locating ski-lifts and associated facilities outside of amenities areas where these cannot reasonably be located inside amenities areas.*

Comment:
Long term planning for Whakapapa includes the removal of the Far West T-bar and replacement with a chairlift to be located more centrally within the Ski Area. Neither the Far West T-bar nor its proposed replacement is located within Amenities Areas, however this is provided for within the above policy.

The Amenities Area generally takes in most buildings within the Ski Area and the chairlifts in the east. All the terrain in the upper western Ski Area is outside of the Amenities Area however and therefore cannot be accessed without utilising infrastructure outside of the Amenities Area. Also the higher altitude areas of the Ski Area are outside of the Amenities Area and they would be inaccessible without some encroachment of infrastructure out of the Amenities Area.

It is clear from the shape of the Amenities Area (shown in figure 1 above) that the majority of the Ski Area cannot be utilised if ski lifts were to be confined to the Amenities Area. Hence it follows that the Amenities Area was intended to control development such as carr parks, administration buildings, café buildings, ski school buildings, machinery depots etc and not limit the location of ski lifts. Accordingly the proposal is considered consistent with the TNPMP and policy 2 above.

3.	*Indicative development plans will be prepared and maintained by each concessionaire for the ski areas within the park, to the satisfaction of the conservator. These will form the basis of decisions made on concession applications.*

Comment:
The proposal is consistent with the 2011 Whakapapa Ski Area Indicative Development Plan.

4.	*Ski area concessionaires will be responsible for the provision and financing of all visitor services and ancillary activities associated with skiing.*

Comment:
RAL accepts responsibility for the provision and financing of skiing related activities at Whakapapa. RAL also funds and manages the carparks, medical facilities and public toilets.

5.	*All ski area planning and services will be of a high standard, appropriate to a park of Tongariro's environmental quality and international stature.*

Comment:
Planning and services are of a high standard as demonstrated by the Knoll Ridge Chalet which received 10 architectural accolades. Each proposal at its inception is considered in terms of cultural, landscape and ecological effects.

6.	*A range of skiing opportunities compatible with national park values and objectives will be fostered.*

Comment:
A range of skiing opportunities compatible with Park values and objectives are provided, including skiing, snowboarding, tobogganing, gear hireage and lessons. Whakapapa provides for beginner, intermediate and advance skill levels.

7.	*The use of aircraft for skiing-related activities will be controlled via 4.4.2.6 Aircraft and the Tongariro/Taupo Conservation Management Strategy.*

Comment:
Approval of aircraft for skiing-related activities is controlled by DOC.

8.	*No further ski area extensions, new ski areas or licences to operate ski area activities should be approved.*

Comment:
An extension to the Ski Area is not proposed, nor is a new ski area.

9.	*No extension of infrastructure for ski area management should be permitted beyond 2300 metres at the Whakapapa and Tukino ski areas and 2325 at Turoa Ski Area (also refer to section 4.2.3 Pristine Areas).*

Comment:
Infrastructure beyond 2,300m asl is not proposed. The existing Far West T-bar extends beyond 2,300m asl and it is proposed to relocate this T-bar to within the Ski Area boundaries.

11.	*Every proposal for ski area development will be prepared in a staged process in consultation with the conservator. This process is outlined in sections 4.1.16 Works Approvals and 5.2.2 Indicative Development Plans for Ski Areas.*

Comment:
To date, all proposals have followed the above prescribed process.

12.	*Ski areas may be utilised for summer activities without expanding the range of facilities provided for the principal winter use (refer to 5.2.15 Summer Use).*

Comment:
Whakapapa Ski Area is open all year round, and during summer provides access for hiking and sightseeing.

14.	*He Kaupapa Rangatira will include protocols for the involvement of tāngata whenua in the development and management of the ski areas (refer to 4.1.2 He Kaupapa Rangatira).*

Comment:
The development of He Kaupapa Rangatira has not been completed.

5.2.6 Ski Area Licences

Ruapehu Alpine Lifts Ltd holds all licences relating to Whakapapa and Turoa ski areas. The department believes that a ski area operated and managed by one concessionaire has benefits through a co-ordinated approach to public safety, the development of facilities and ultimately the quality of the skier experience. A unified approach to ski area management enables the department and the concessionaire to work effectively together in the best interests of the park and the public. Whakapapa and Turoa ski areas will continue to operate on individual licenses under the coordinated management of Ruapehu Alpine Lifts Ltd.

Objectives

a To protect the values of Tongariro National Park through co-ordinated, efficient licence management for ski areas.

Comment:

Allowing the one experienced concessionaire to operate both Whakapapa and Turoa achieves co-ordinated and efficient licence management as prescribed in objective a. The TNPMP specifically supports RAL as the concessionaire for both Ski Areas.

b To facilitate high quality skier experience in line with the objectives of the respective licensees.

Comment:

RAL provide for high quality skier experiences. The planned upgrades are to improve the quality of the experience while achieving landscape and cultural gains.

Policies

1. Terms of the ski area licences will be subject to the objectives and policies of this plan.
2. Licence areas will remain consistent with the ski area boundaries defined by this plan.
3. The efficiencies of single concessionaire regimes will be maximised.

Comment:

The proposed licence renewal is consistent with policy 2 above as no changes are sought to the Ski Area boundaries. The proposal also is supported by policy 3 which seeks to maximise the efficiencies of a single concessionaire (RAL operating both Whakapapa and Turoa Ski Areas). Licence conditions subject to the TNPMP are anticipated.

Overall, the proposed licence is provided for in the TNPMP and the TNPMP specifically recognises the benefits of having RAL as the concessionaire for both Whakapapa and Turoa Ski Areas. Accordingly I consider the proposal is supported by the objectives and policies of the TNPMP.

3. TONGARIRO/TAUPŌ CONSERVATION MANAGEMENT STRATEGY 2002-2012

The Tongariro/Taupõ Conservation Management Strategy (**CMS**) provides a broad level strategy for across the entire conservancy.

Key Principles
Principle 1
Protection and Enhancement of the Natural Environment within the Conservancy
Highest priority will be given to retaining and restoring natural biodiversity and protecting threatened indigenous natural resources within the conservancy.

The protection of threatened resources will be based principally on the maintenance of viable ecosystems and habitats on which they depend. A diverse range of natural ecosystems provides greater opportunity for species, communities and processes to survive. Concern for diversity includes geological landforms, soil, landscape and other natural features in addition to the more traditional concern for plant and animal species. The department will also protect diversity in terrestrial and freshwater ecosystems.

Protecting ecosystems from the threats of fire, animal and plant pests will remain high priorities.

Through the decades towards the year 2050 the department will:

- *Reintroduce native species which have disappeared from the region;*
- *Successfully manage presently threatened species and their habitats so that they are no longer in danger;*
- *Restore critical self-sustaining processes to high priority ecosystems, terrestrial or aquatic;*
- *Eliminate or control the major plant pests currently known from public conservation land;*
- *Have strategies to eliminate or control currently unknown plant pest threats as they occur;*
- *Manage significant predator and competitor populations to remove risk to threatened species;*
- *Manage the rainbow trout fishery consistent with legislative requirements;*
- *Ensure that monitoring and research supports managers in decision making;*
- *Remove from public conservation land past developments which no longer fulfil their original function, have no conservation function or are a threat to indigenous natural values;*
- *Give greater protection to the region's wild and scenic rivers, lakes and other natural water bodies, to maintain their intrinsic values, natural water quality, flows and aquatic ecosystems.*

Comment:
The ecological value of the Ski Area is considered in detail in each proposal for a Works Approval. Methods have been developed and implemented for the control and rehabilitation of construction sites. The area is relatively free of weed species and machinery is steam cleaned prior to arriving on site in order to avoid the introduction of weeds to the locality. Day to day operations are responsive to ecological values as directed by DOC. Ecological enhancement is also proposed by RAL above and beyond the current requirements of DOC (e.g. additional planting in Happy Valley and heather control).

Principle 2
Protection of Historic Resources where they are Managed by the Department
The historic resources to receive highest protection priority are those with unique cultural or scientific value and high representative status.

Through the decades towards the year 2050 the department will:
- *Identify and conserve the key historic resources on public conservation land and, for other land, encourage the identification and protection of key historic resources by co-operating with others including tangata whenua, district councils and the Historic Places Trust.*

Comment:
The Tuku Area is of cultural significance and is within the Ski Area. There are no known archaeological sites within the Ski Area. In recognition of the significance of the Tuku and to mitigate cultural effects as much as practicable whilst still retaining a viable Ski Area, it is proposed to reduce the number of lifts in the Tuku from five to three.

Principle 3
Development of an Effective Conservation Partnership with Tangata Whenua
Section 4 of the Conservation Act 1987 states that:
"...the Act shall so be interpreted and administered as to give effect to the principles of the Treaty of Waitangi..."
The department's role is to manage this land on behalf of all people but with particular recognition of the Crown's principle of partnership with tangata whenua (section 3.7).

Through the decades towards the year 2050 the department will:
- *Actively give effect to the principles of the Treaty of Waitangi;*
- *Fully express and maintain an effective relationship with iwi;*
- *Recognise and provide for the mana and spiritual value of the tops of the volcanoes of Tongariro National Park maintaining their pristine nature;*
- *Assist in the resolution of any outstanding Treaty of Waitangi issues within the region relating to public conservation land;*
- *Operate protocols to facilitate the relationship between the Crown and iwi on conservation management issues focused on conservation outcomes;*
- *Provide for an expression of iwi values in the management of conservation resources.*

Comment:
Principle 3 relates to the relationship between DOC and Iwi. The peaks of the volcanoes are recognised in principle 3 and in response, RAL long term planning seeks to replace lifts and result in a reduction of the number of lifts within the Tuku Area. RAL also wish to foster a closer partnership with Tāngata Whenua.

Principle 4

Fostering Recreation Use of Public Conservation Land

The conservancy is comparatively small in area but its land, lakes and rivers provide for the full range of recreation opportunities, from urban to the remote end of the spectrum. The opportunities available on public conservation land attract almost 3.5 million visitors per annum. The department is the largest tourism facilities operator within the region with a network of tourism infrastructure which assists in the provision of information to the public and the advocacy of conservation or enhanced public access for enjoyment of natural resources. At sites such as Huka Falls, with 900,000 visitors per annum and Whakapapa village with 1,000,000 visitors per annum, the department manages multi-million dollar infrastructure investments and interacts with visitors from throughout the world on a daily basis. There is intense visitor pressure on public conservation land at a number of key sites within the conservancy. The public have a right of access to this land and its use and enjoyment engender support for conservation. But it is important not to allow degradation of the visitor experience through overuse or threats to natural or historic values. Natural quiet – that is an environmental state around which external influences (for example infrastructure, noise or significant visitor numbers) are minimised in order to provide for a visitor experience which is unencumbered by outside influences – must be considered. Degradation of natural and historic resources beyond the current limits is the department's principal concern. Providing experiences without exceeding social or physical carrying capacities is a high management priority.

Commercial recreation concession holders can enhance the experience of visitors. Concessions (other than those involving development of overnight accommodation infrastructure or significant adverse effects on the environment) which assist in the protection of natural or historic resources, do not cause significant conflicts with other visitors to an area and contribute to the conservancy's recreational opportunities are seen as an appropriate use of public conservation land.

The pressure from concessionaires to develop sites with infrastructure is strong. Except in terms of existing legal agreements further construction of infrastructure to increase bednights on public conservation land will not be permitted. To do so would encourage the further loss of conservation values. The department will continue to maintain and upgrade its existing conservancy-wide hut network to provide for backcountry visitor use. This will not provide for an increase in bed numbers beyond existing levels at specific sites. Where co-location by recreation concessionaires is appropriate the department will initiate this.

Through the decades towards the year 2050 the department will:

- *Maintain the right of free access on public conservation land while continuing to protect natural and historic values;*
- *Through a good working relationship with visitors, including concessionaires and the wider tourism industry, establish limits to growth of recreational developments of the type that require substantial infrastructures;*
- *Manage use of public conservation land to minimise adverse impacts;*
- *Move non-essential visitor facilities from public conservation land wherever possible, i.e., facilities which do not provide for recreation opportunities consistent with the protection of natural areas, facilities which create unacceptable environmental, social, physical and visual impacts and those which contribute to an oversupply of facilities for a particular recreation opportunity in terms of the conservancy's recreation opportunity spectrum;*

- *By 2010 - investigate the need for a walking track around Lake Taupo and, if consistent with the criteria for supply of recreation facilities, implement development of this track in conjunction with other agencies, organisations and landowners.*

Comment:
Principle 4 seeks to limit visitor numbers to carrying capacity. The TNPMP identifies the comfortable carrying capacity at 6,500. The RAL planning for the next 10 years (including upgrades) has a design capacity of 5,130. The Ski Area operation does not cause significant conflict with other visitors and provides important all year round access and recreational facilities for visitors. RAL currently does not have overnight accommodation within the Ski Area (some accommodation is located outside of the Ski Area in Whakapapa Village) and does not intend to establish overnight accommodation inside the Ski Area. There are only two commercial Ski Areas in the North Island which provide different terrain with different weather patterns and choice for visitors hence there is not an oversupply.

Principle 5
Limiting Non-recreation Commercial Use of Public Conservation Land

Principle 6
Enhancing Advocacy Outcomes and Community Relations

3.8.1 Recreation Concessions
Recreation and tourism concessions can assist the department to offer a wider range of opportunities for outdoor recreation through the provision of facilities and services. These recreation opportunities will be complementary to those provided directly by the department.

Recreation concessions are managed under the Conservation Act 1987. The department has produced standard operating procedures for concessions which cover recreation and tourism concessions granted under the National Parks, Reserves and Conservation acts. These deal with planning for and classification of concessions, requirements for concession applications and conditions in concession agreements.

The existing management plans for Tongariro National Park and Kaimanawa Forest Park include concessions policies. These plans reflect the impact of existing recreation concessions and the need to protect the special values of these areas.

High investment intensive commercial activity is focused at Whakapapa village and ski area and Turoa ski area in Tongariro National Park. Elsewhere commercial activities tend to be small scale, low impact, sometimes infrequent and spread over wide areas.

Objective
- *To foster visitor enjoyment of land managed by the department through authorising commercial recreation and tourism activities which are compatible with the natural and historic values of any area and which do not reduce the enjoyment of these values by other visitors.*

Implementation

(a) The department will assess and process applications for recreation concessions on public conservation land in accordance with the Conservation Act 1987 and standard operating procedures in place at the time.

(b) The department will consider any application for commercial recreation use of public conservation land in Kaimanawa Forest Park or Tongariro National Park in accordance with the policies set out in the respective management plans for those areas.

(c) Recreation and tourism concessions must conform with all other objectives and implementation provisions of this document.

(d) The department will not authorise the development of new or further concessionaire overnight accommodation infrastructure unless permitted in terms of existing lease agreements at the time this strategy becomes operative or unless significant conservation benefits will be had.

(e) The department will not grant any further concessions over an area if it is considered that an increase in use will adversely affect natural or historic resources or cause adverse and irresolvable conflict with other visitors to that area.

(f) Public consultation and Tongariro/Taupo Conservation Board input will be sought for all advertised applications.

(g) The department will establish processes with iwi for their involvement in concession applications through He Kaupapa Rangatira.

(h) The department will closely monitor the impacts of existing commercial recreation operators on public conservation land to ensure that conditions of operations are adhered to. Monitoring will include ongoing assessment of the cumulative effects of concessions.

(i) The department will work closely with local tourism organisations to assess visitor demand. If deemed to be appropriate and of benefit to conservation the department may advertise for interest in operating a particular type of commercial recreation activity on public conservation land.

(j) Concessionaires and their clients may share facilities such as huts and camping grounds on a 'first-come, first-served basis' with other visitors (unless otherwise determined by the department) but will not be given exclusive use of any public facility.

(k) Concessionaires must take primary responsibility for the safety of their clients and will comply with all relevant legislation.

(l) The department will maintain close liaison with concessionaires.

(m) The department will investigate all reports of unauthorised commercial activities on public conservation land and where necessary take action to remove the activity and to prosecute for any offence.

Comment:

The proposed licence renewal accords with the objective for recreation concessions. RAL provides a range of services that complement the recreational opportunities offered by DOC (e.g. hiking). The Ski Area provides for visitor enjoyment of the National Park. RAL has implemented many methods of ensuring that their operations are sensitive to the natural and historical values of the mountain in accordance with objective 1 above. Overnight accommodation is not sought (implementation point d above). RAL's plans provide for a design carrying capacity of 5,130 and the TNPMP identifies the comfortable carrying capacity as 6,500 hence the proposal does not represent an increase in use (implementation point e). RAL has a comprehensive Safety Policy and does not place responsibility for safety on DOC (implementation point k). RAL and DOC maintain

a close working relationship at an operational level (I). Accordingly the proposed licence is consistent with the above objective and implementation methods of the CMS.

Section 4.1.2 He Kaupapa Rangatira
Principles of the Treaty of Waitangi and Objective1 Kāwanatanga (Article I of the Treaty)

The authority to make laws for the good order and security of the country.

Objective:

a To manage the Tongariro/Taupo Conservancy in accordance with the Conservation Act 1987 and the acts listed in the First Schedule to the Conservation Act 1987 and to interpret and administer these acts so as to give effect to the principles of the Treaty of Waitangi.

Comment:
RAL have commenced consultation with Iwi and it is expected that DOC will also consult with Tāngata Whenua. A Cultural Impact Assessment has been commissioned and further consultation is intended. The licence is consistent with the policies of the TNPMP and the Conservation Act.

2. Tino Rangatiratanga (Article II of the Treaty, Māori version)
The right of Māori to exercise traditional authority and control over their land, resources, and taonga.

Objectives:

a To recognise and actively promote the exercise by Iwi of tino rangatiratanga over their land and resources, and taonga of significance to them.

b To identify with Iwi opportunities for them to exercise an effective degree of control over traditional resources and taonga that are administered by the department, where this is not inconsistent with legislation. Note: "An effective degree of control" may vary from full authority at one end of the spectrum to a right to be consulted at the other end.

Comment:
It is understood that DOC involve Tāngata Whenua in decision making regarding Ski Area proposals from consultation through the application processing and liaison with regards to draft conditions for Works Approvals to training and involvement of Tāngata Whenua for monitoring of site works conditions.

3. Exclusive and Undisturbed Possession (Article II of the Treaty, English version)

The right of Māori to exclusive and undisturbed possession of their land, forests, estates and fisheries.

Objective:

a To recognise, particularly when the department is exercising its advocacy function, the right of Māori to exclusive and undisturbed possession of land in Māori title and resources and other taonga of significance to Iwi.

Comment:

The decision maker for this application is the Minister of Conservation or their delegate. The mountains are a taonga to Tāngata Whenua. Currently the land is National Park but is subject of a Treaty claim.

4. Ōritetanga (Article III of the Treaty, both versions)

The right of Māori and non-Māori alike to equality of treatment and the privileges and responsibilities of citizenship.

Objective

a To ensure that tāngata whenua as individual citizens and taxpayers receive fair and equal access to the resources of the conservancy and the benefits offered by the department to the general public.

Comment:

It is expected that the application will be publicly notified allowing individuals to submit. The Ski Area is open to the general public and RAL provide increased opportunities to Tāngata Whenua with sponsorship or discounts to Kohanga Reo groups, Tūwharetoa Snowboard Squad etc.

5. Kaitiakitanga

The right of Māori to undertake their duty of guardianship/custodianship/ stewardship of their land and resources, and taonga of significance to them.

Objectives

a To recognise and actively promote the exercise of kaitiakitanga by Iwi in respect of their land, including resources and taonga of significance to them and under the control of the department.

b To facilitate the exercise of kaitiakitanga by Iwi in respect of traditional resources and taonga of significance to them where these are administered by the department.

Comment:

The mountains are a significant taonga to Tāngata Whenua. RAL have sought to engage Tāngata Whenua on the current proposal and the upgrade and renewal proposals that were outlined in the IDP in 2011. One meeting has been held and further meetings are anticipated. Also a Cultural Impact Assessment has been commissioned.

6. Whakawhanaungatanga

The Treaty provides for a partnership between Māori and the Crown, which requires the parties to afford each other reasonable co-operation and utmost good faith, in accordance with their Treaty obligations.

Objectives

a To identify with Iwi the means to provide opportunities for partnership and participation in conservation management, particularly in respect of traditional land, resources and taonga administered by the department.

b To develop an active relationship of co-operation, utmost good faith and mutual respect between the department and Iwi and to reflect the importance and quality of that relationship in the culture of the department and all of its operations.

9. Whakatika i te Mea He

The duty of the Crown to remedy past breaches of the Treaty and to prevent further breaches.

Objectives

a To avoid any action which might frustrate or prevent redress of Treaty claims.

b To assist the Government actively in the resolution of Treaty claims where these relate to Tongariro/Taupo Conservancy.

c To address any grievances which tāngata whenua might bring to the attention of the department, formally or informally, in respect of any act or omission of the department in the administration of the park.

Comment:

The proposed licence renewal will not frustrate the Treaty claim process or an increased partnership between Tāngata Whenua and DOC. RAL anticipates that any future changes to Park ownership and or management changes can be accommodated in the licence.

4. TONGARIRO WHANGANUI TARANAKI CONSERVATION MANAGEMENT STRATEGY

DOC are in the process of drafting a Tongariro Whanganui Taranaki Conservation Management Strategy which will supersede the Tongariro/Taupõ Conservation Management Strategy. The draft is not yet publicly available and therefore has not been considered here.

5. GENERAL POLICY FOR NATIONAL PARKS 2005

The General Policy for National Parks 2005 provides guidance and direction for the preparation of National Park Management Plans such as the TNPMP. As such, a proposal that is consistent with the relevant National Park Management Plan should therefore be consistent with the General Policy for National Parks.

Policies	
8.1	***Planning and Management in General***
8.1(b)	*Opportunities for the benefit, use and enjoyment of each national park will be provided. Where they are provided they should be consistent with the outcomes planned for places.*
8.1(c)	*Planning and management for recreation and other opportunities for the benefit, use and enjoyment of each national park should:*
i)	*Preserve national park values, including natural quiet, as far as possible;*
ii)	*Minimise adverse effects, including cumulative effects, on national park values;*
iii)	*Provide for a range of experiences to enable people with different capabilities, skills and interests to have the opportunity to benefit, use, enjoy and gain inspiration from national parks; and*
iv)	*Maintain the distinctive character of recreation in New Zealand national parks, including the traditional New Zealand backcountry experience with its ethos of self-reliance.*
8.1(e)	*Recreational opportunities, should be managed using a variety of tools to support the outcomes planned for places, including, but not limited to, zoning and limitations on the number of people or activities, including concessionaires.*

Comment:
The proposal is consistent with the above policies. It provides for the use and enjoyment of the Park and the Ski Area is included in the TNPMP and zoned for this purpose. Whakapapa Ski Area provides access to the mountain for a variety of people with differing physical capabilities.

10.4	***Skifield facilities***
10.4(a)	*A National Park Management Plan will identify the conditions under which applications for the establishment, modification or extension of any skifield and its associated facilities may be considered.*

Comment:
A new skifield, modification or extension to the boundaries is not sought.

10.5	***Aerial cableways***
10.5(a)	*The erection and operation of aerial cableways should be confined to defined amenities areas and existing ski fields except where required as part of the core track network maintained by the Department or for necessary natural hazards monitoring.*

Comment:
The proposed replacement ski lifts will be confined to the existing Ski Area boundaries as prescribed in 10.5 above.

Overall the proposal is consistent with the General Policy for National Parks 2005.

6. NATIONAL PARKS ACT 1980

49. Concessions

(1) The Minister may, in accordance with Part 3B of the Conservation Act 1987, grant a concession in respect of any park; and the said Part 3B shall apply as if references in that Part to a conservation area were references to a park and with any other necessary modifications.

(2) Before granting any concession over a park, the Minister shall satisfy himself or herself that a concession:

(a) Can be granted without permanently affecting the rights of the public in respect of the park; and

(b) Is not inconsistent with section 4.

Comment:

Section 4 of the National Parks Act 1980 (**NPA**) is that Parks are to be maintained in natural state, and the public are to have right of entry. Within Part One of the NPA are the Principles to be applied in National Parks (Sections 4-5A).

Section 4. Parks to be maintained in natural state and public to have right of entry

(1) It is hereby declared that the provisions of this Act shall have effect for the purpose of preserving in perpetuity as national parks, for their intrinsic worth and for the benefit, use, and enjoyment of the public, areas of New Zealand that contain scenery of such distinctive quality, ecological systems, or natural features so beautiful, unique, or scientifically important that their preservation is in the national interest.

(2) It is hereby further declared that, having regard to the general purposes specified in subsection (1), national parks shall be so administered and maintained under the provisions of this Act that:

(a) They shall be preserved as far as possible in their natural state;

(b) Except where the Authority otherwise determines, the native plants and animals of the parks shall as far as possible be preserved and the introduced plants and animals shall as far as possible be exterminated;

(c) Sites and objects of archaeological and historical interest shall as far as possible be preserved;

(d) Their value as soil, water, and forest conservation areas shall be maintained;

(e) Subject to the provisions of this Act and to the imposition of such conditions and restrictions as may be necessary for the preservation of the native plants and animals or for the welfare in general of the parks, the public shall have freedom of entry and access to the parks, so that they may receive in full measure the inspiration, enjoyment, recreation and other benefits that may be derived from mountains, forests, sounds, seacoasts, lakes, rivers and other natural features.

Comment:

The TNPMP identifies the area as a Ski Area and accordingly provides for the licence. The public have freedom of entry to the area. The Ski Area operations are consistent with the purpose of the NPA preserving National Parks in perpetuity for their intrinsic worth and the benefit, use and enjoyment of the public. Although the Ski Area is associated with skiing it also provides an

opportunity for less able bodied persons to experience the inspiration and enjoyment that the environment provides by allowing access via Bruce Road and the chairlifts to areas that would be otherwise inaccessible to those who are not physically capable of hiking in an alpine environment.

5. Indigenous plants and animals to be preserved

(1) No person shall, without the prior written consent of the Minister, cut, destroy or take, or purport to authorise any person to cut, destroy or take, any plant or part of a plant that is indigenous to New Zealand and growing in a national park.

(2) No person shall, without the prior written consent of the Minister, disturb, trap, take, hunt or kill or purport to authorise any person to disturb, trap, take, hunt or kill any animal that is indigenous to New Zealand and found within a National Park.

(3) The Minister shall not give his consent under subsection (1) or subsection (2) unless the act consented to is consistent with the management plan for the park.

Comment:

During construction projects RAL harvests plants in the area to be disturbed and replaces the plants following completion of construction. In response to the ecological assessment undertaken for this application, RAL will be undertaking further ecological enhancement with additional indigenous planting in Happy Valley and heather control in the lower altitudes of the Ski Area. It should be recognised that heather has not spread into the Ski Area as a result of Ski Area operations and has not been caused by RAL.

Section 49 Concessions

(1) The Minister may, in accordance with Part 3B of the Conservation Act 1987, grant a concession in respect of any park; and the said Part 3B shall apply as if references in that Part to a conservation area were references to a park and with any other necessary modifications.

(2) Before granting any concession over a park, the Minister shall satisfy himself or herself that a concession:

(a) Can be granted without permanently affecting the rights of the public in respect of the park; and

(b) Is not inconsistent with section 4.

Comment:

The licence provides for public access to the area. The licence is not contrary to Section 4 of the NPA.

Section 51A Other activities in parks

(1) The Minister may do, or authorise a person to do, any thing that the Minister considers appropriate for the proper and beneficial management, administration, and control of a park.

(2) If there is a management plan for the park, the Minister must not do, or authorise a person to do, any thing that is inconsistent with the management plan.

(3) If the Minister authorises a person to do any thing, the Minister may impose any terms and conditions the Minister considers appropriate in the circumstances, including a condition requiring the payment of fees.

Comment:

The licence sought is consistent with the TNPMP, and the TNPMP provides for the Ski Area and recognises the benefits of RAL operating both Whakapapa and Turoa Ski Areas.

7. CONSERVATION ACT 1987

Part 3B of the Conservation Act 1987 controls the processing of concession applications.

17R Applications for leases, licences, etc

(1) Any person may apply to the Minister for a concession to conduct an activity in a conservation area.

(2) However, a person must not apply to the Minister for a concession if:

(a) The Minister has exercised a power under section 17ZG(2)(a) to initiate a process that relates to such an application for a concession; and

(b) The application would be inconsistent with the process.

Comment:

The concession (licence and lease) application can be processed under Section 17R.

17T Process for complete application

(1) The Minister shall consider every complete application for a concession that is received by him or her.

(1A) However, the Minister must not consider an application made in breach of section 17R(2).

(2) If the Minister is satisfied that the complete application does not comply with or is inconsistent with the provisions of this Act or any relevant conservation management strategy or conservation management plan, he or she shall, within 20 working days after receipt of the application, decline the application and inform the applicant that he or she has declined the application and the reasons for declining the application.

(3) Nothing in this Act or any other Act shall require the Minister to grant any concession if he or she considers that the grant of a concession is inappropriate in the circumstances of the particular application having regard to the matters set out in section 17U.

(4) Before granting a lease, or a licence with a term (including all renewals) exceeding 10 years, in respect of a conservation area, the Minister must give public notice of the intention to do so.

(5) Before granting a licence with a term (including all renewals) not exceeding 10 years, or a permit or easement, in respect of a conservation area, the Minister may give public notice of the intention to do so if, having regard to the effects of the licence, permit, or easement, he or she considers it appropriate to give the notice.
(6) Subsections (4) and (5) do not apply to the grant of a lease or licence resulting from the exercise of a right of renewal, or a right to a new lease or licence, that is contained in a lease or licence.
(7) Section 49 applies to a public notice given under subsection (4) or (5).

Comment:
Public notification of the application is required.

17W Relationship between concessions and conservation management strategies and plans

Comment:
The licence is consistent with the TNPMP and CMS in accordance with Section 17W.

17Z Term of concession
(1) A lease or a licence may be granted for a term (which term shall include all renewals of the lease or licence) not exceeding 30 years or where the Minister is satisfied that there are exceptional circumstances, for a term not exceeding 60 years.

Comment:
The exceptional circumstances that warrant a 60 year term is the value of infrastructure inside the licence area and the term required to realise the financial gain from the infrastructure. This is further discussed in the application report section 2.3.

8. DOC DESTINATION MANAGEMENT FRAMEWORK

The Destination Management Framework (**DMF**) is a set of principles and associated actions that support DOC's strategic vision for conservation and was created by DOC. DMF focuses on increasing the participation of people in recreation and in protecting our historic heritage.

The Conservation Message of the Destination Management Framework (DMF) is:
People prosper from a healthy functioning environment and all the benefits it brings – not just benefits like clean air and fresh water, but also a vast choice of recreational options and spaces. Investing in these public spaces is good for our future health and wellbeing.

The intermediate outcomes of the DMF are:
- *More people participate in recreation*
- *Our history is protected and brought to life*
- *More business opportunities delivering increased economic prosperity and conservation gain*

Key outputs of the DMF are:
- *Opportunity provision is driven by demand*
- *Destination investment is optimised to meet demand*

- *Every destination provides a quality experience*
- *Opportunities are promoted*
- *Outcomes are achieved by working with others*

Comment:
The proposal is supported by the DMF and it provides recreational options for winter snow sports activities and summer hiking, sightseeing and recreational activities. RAL's operations support economic prosperity as documented in the PWC 2014 report on the economic effects of the Ski Areas (appended to this application). RAL work to provide a quality experience to visitors and some upgrades to infrastructure are necessary to meet visitor expectations. RAL works together with DOC and mountain clubs. The licence is supported by the DOC Destination Management Framework.

9. WORLD HERITAGE STATUS

The Park is recognised by the United Nations Educational, Scientific and Cultural Organisation (**UNESCO**) with World Heritage status. In 1990 the Park was acknowledged as a World Heritage Site for its natural landscape and in 1993 it became the first site in the world to receive recognition as a cultural landscape under a revised set of criteria.

World Heritage Convention
Operational Guidelines for the Implementation of the World Heritage Convention 2012

II.A Definition of World Heritage
Cultural and Natural Heritage
Cultural and natural heritage are defined in Articles 1 and 2 of the World Heritage Convention.

Article 1
For the purposes of this Convention, the following shall be considered as "cultural heritage";
- *Monuments: architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of Outstanding Universal Value from the point of view of history, art or science;*
- *Groups of buildings: groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of Outstanding Universal Value from the point of view of history, art or science;*
- *Sites: works of man or the combined works of nature and of man, and areas including archaeological sites which are of Outstanding Universal Value from the historical, aesthetic, ethnological or anthropological points of view.*

Article 2
For the purposes of this Convention, the following shall be considered as "natural heritage":
- *Natural features consisting of physical and biological formations or groups of such formations, which are of Outstanding Universal Value from the aesthetic or scientific point of view;*
geological and physiographical formations and precisely delineated areas which constitute the habitat of threatened species of animals and plants of Outstanding Universal Value from the point of view of science or conservation;

- *Natural sites or precisely delineated natural areas of Outstanding Universal Value from the point of view of science, conservation or natural beauty.*

Ii. National Protection and International Protection of the Cultural and Natural Heritage
Article 4
Each State Party to this Convention recognizes that the duty of ensuring the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage referred to in Articles 1 and 2 and situated on its territory, belongs primarily to that State. It will do all it can to this end, to the utmost of its own resources and, where appropriate, with any international assistance and co-operation, in particular, financial, artistic, scientific and technical, which it may be able to obtain.

Article 5
To ensure that effective and active measures are taken for the protection, conservation and presentation of the cultural and natural heritage situated on its territory, each State Party to this Convention shall endeavour, in so far as possible, and as appropriate for each country:

(a) To adopt a general policy which aims to give the cultural and natural heritage a function in the life of the community and to integrate the protection of that heritage into comprehensive planning programmes;
(b) To set up within its territories, where such services do not exist, one or more services for the protection, conservation and presentation of the cultural and natural heritage with an appropriate staff and possessing the means to discharge their functions;
(c) To develop scientific and technical studies and research and to work out such operating methods as will make the State capable of counteracting the dangers that threaten its cultural or natural heritage;
(d) To take the appropriate legal, scientific, technical, administrative and financial measures necessary for the identification, protection, conservation, presentation and rehabilitation of this heritage; and
(e) To foster the establishment or development of national or regional centres for training in the protection, conservation and presentation of the cultural and natural heritage and to encourage scientific research in this field.

Article 6
1. Whilst fully respecting the sovereignty of the States on whose territory the cultural and natural heritage mentioned in Articles 1 and 2 is situated, and without prejudice to property right provided by national legislation, the States Parties to this Convention recognize that such heritage constitutes a world heritage for whose protection it is the duty of the international community as a whole to co-operate.

2. The States Parties undertake, in accordance with the provisions of this Convention, to give their help in the identification, protection, conservation and presentation of the cultural and natural heritage referred to in paragraphs 2 and 4 of Article 11 if the States on whose territory it is situated so request.

Each State Party to this Convention undertakes not to take any deliberate measures which might damage directly or indirectly the cultural and natural heritage referred to in Articles 1 and 2 situated on the territory of other States Parties to this Convention.

Article 7
For the purpose of this Convention, international protection of the world cultural and natural heritage shall be understood to mean the establishment of a system of international co-operation and assistance designed to support States Parties to the Convention in their efforts to conserve and identify that heritage.

Mixed Cultural and Natural Heritage
Properties shall be considered as "mixed cultural and natural heritage" if they satisfy a part or the whole of the definitions of both cultural and natural heritage laid out in Articles 1 and 2 of the Convention.

Cultural landscapes
Cultural landscapes are cultural properties and represent the "combined works of nature and of man" designated in Article 1 of the Convention. They are illustrative of the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic and cultural forces, both external and internal

II.F Protection and management
Protection and management of World Heritage properties should ensure that their Outstanding Universal Value, including the conditions of integrity and/or authenticity at the time of inscription, are sustained or enhanced over time. A regular review of the general state of conservation of properties, and thus also their Outstanding Universal Value, shall be done within a framework of monitoring processes for World Heritage properties, as specified within the Operational Guidelines

All properties inscribed on the World Heritage List must have adequate long-term legislative, regulatory, institutional and/or traditional protection and management to ensure their safeguarding. This protection should include adequately delineated boundaries. Similarly States Parties should demonstrate adequate protection at the national, regional, municipal, and/or traditional level for the nominated property. They should append appropriate texts to the nomination with a clear explanation of the way this protection operates to protect the property.

Legislative, regulatory and contractual measures for protection
Legislative and regulatory measures at national and local levels should assure the survival of the property and its protection against development and change that might negatively impact the Outstanding Universal Value, or the integrity and/or authenticity of the property. States Parties should also assure the full and effective implementation of such measures.

Boundaries for effective protection
The delineation of boundaries is an essential requirement in the establishment of effective protection of nominated properties. Boundaries should be drawn to ensure the full expression of the Outstanding Universal Value and the integrity and/or authenticity of the property.

For properties nominated under criteria (i) to (vi), boundaries should be drawn to include all those areas and attributes which are a direct tangible expression of the Outstanding Universal Value of the property, as well as those areas which in the light of future research possibilities offer potential to contribute to and enhance such understanding.

For properties nominated under criteria (vii) to (x), boundaries should reflect the spatial requirements of habitats, species, processes or phenomena that provide the basis for their inscription on the World Heritage List. The boundaries should include sufficient areas immediately adjacent to the area of Outstanding Universal Value in order to protect the property's heritage values from direct effect of human encroachments and impacts of resource use outside of the nominated area.

The boundaries of the nominated property may coincide with one or more existing or proposed protected areas, such as national parks or nature reserves, biosphere reserves or protected historic districts. While such established areas for protection may contain several management zones, only some of those zones may satisfy criteria for inscription.

Management systems

Each nominated property should have an appropriate management plan or other documented management system which must specify how the Outstanding Universal Value of a property should be preserved, preferably through participatory means.

The purpose of a management system is to ensure the effective protection of the nominated property for present and future generations.

An effective management system depends on the type, characteristics and needs of the nominated property and its cultural and natural context. Management systems may vary according to different cultural perspectives, the resources available and other factors. They may incorporate traditional practices, existing urban or regional planning instruments, and other planning control mechanisms, both formal and informal. Impact assessments for proposed interventions are essential for all World Heritage properties.

In recognizing the diversity mentioned above, common elements of an effective management system could include:

a) A thorough shared understanding of the property by all stakeholders;
b) A cycle of planning, implementation, monitoring, evaluation and feedback;
c) The monitoring and assessment of the impacts of trends, changes, and of proposed interventions;
d) The involvement of partners and stakeholders;
e) The allocation of necessary resources;
f) Capacity-building; and
g) An accountable, transparent description of how the management system functions.

Effective management involves a cycle of short, medium and long-term actions to protect, conserve and present the nominated property. An integrated approach to planning and management is essential to guide the evolution of properties over time and to ensure maintenance of all aspects of their Outstanding Universal Value. This approach goes beyond the property to include any buffer zone(s), as well as the broader setting.

Sustainable use
World Heritage properties may support a variety of ongoing and proposed uses that are ecologically and culturally sustainable and which may contribute to the quality of life of communities concerned. The State Party and its partners must ensure that such sustainable use or any other change does not impact adversely on the Outstanding Universal Value of the property. For some properties, human use would not be appropriate. Legislations, policies and strategies affecting World Heritage properties should ensure the protection of the Outstanding Universal Value, support the wider conservation of natural and cultural heritage, and promote and encourage the active participation of the communities and stakeholders concerned with the property as necessary conditions to its sustainable protection, conservation, management and presentation.

Comment:
The 1990 International Union for Conservation of Nature (IUCN) report which recommended listing the national park for its outstanding natural values outlined concerns resulting from a 1987 field visit regarding:

> *"The extent of the ski development on Mt Ruapehu, the current plans for expansion and the impact of these developments on cultural values and 'image' of the park. This is compounded by new proposals for slope grooming and snowmaking which would have substantial impacts on scenic values and stream hydrology. It has been suggested that the ski fields of Tongariro would be very susceptible to effects of global warming which would require an upward movement of skiing activity."* This IUCN report concluded that:
> *"In the preparation of the new management plan for the park, both these issues have been resolved in the manner that protects the natural values of the park and enhances the cultural and spiritual values associated with the Maori people. Ski field development is constrained within specific zones which have detailed plans and measures to place limits on their expansion and operation."*

As stated above, the ICUN report noted concern that global warming may result in requests to extend the Ski Area upwards. RAL have considered the potential effects of global warming and commissioned an assessment by NIWA – The Potential Impact of Climate Change on Seasonal Snow Conditions in NZ (2010). RAL are not intending on seeking an extension to the upper limits of the Ski Area and will manage the effects of global warming through snowmaking and snow management. The existing snow making systems provide a water resource and reticulation system which enables coverage on Happy Valley, Meads Wall, Rockgarden, Hut Flat, Staircase and Waterfall trails to an altitude of 1,900m asl at the base of the Waterfall T-bar. The water resource is from a 25,000m^3 reservoir located at the bottom of Happy Valley with replenishment of water to this reservoir being from a spring located a further 2km downstream in the Waipuna Valley. Pumping stations are located at the reservoir and at Hut Flat. The IDP 2011 demonstrates the intent to extend snow making to other areas of the Ski Area hence avoiding the need for an extension to the upper reaches of the Ski Area boundaries.

The 1993 report which recommended the national park also be inscribed for its outstanding cultural values does not include any reference to ski area issues.

A later IUCN report in 2002 indicates that the original attributes which led to inscription of the national park for both natural and cultural values are now stronger and the earlier issues of concern, particularly those that related to recreational use, have significantly diminished. This 2002

report makes specific reference to the Whakapapa sewage scheme of which RAL was a significant promoter and funder. RAL agreed and committed some years ago to the principal that the natural and cultural values of Ruapehu can only be sustained if the treatment and disposal of all human waste is undertaken away from the slopes of the mountain. This principal is now 100% met at both Whakapapa and Turoa Ski Areas.

RAL's main planning and investment in recent years has shifted away from expansion of the Ski Area boundaries towards upgrading of facilities within the current boundaries. The use of snow making and other snow management practices ensures a full winter snow season will continue to be available and will provide for skiing and snowboarding within the existing Ski Area boundaries even under the current worst case climate change predictions for the next 60 to 100 years.

In the 2002 NZ Periodic Report to the World Heritage Committee page 4 states that the completed TNPMP dealt with the issues identified in 1990 (of the extent of ski development on Mt Ruapehu and the extent to which cultural values of the Park are given prominence in the TNPMP and the level of involvement by the local Maori people). *'The completed plan [TNPMP] dealt with these issues and clearly restricted skifield development to identified amenity area boundaries and limited development outside the amenity area.'*

The current operation of the Ski Area and the sought licence renewal is consistent with this approach as it does not propose extension of the Ski Area boundaries. RAL's approach also provides a design carrying capacity well below the TNPMP's identified comfortable carrying capacity. RAL's management of the Ski Area recognises the World Heritage status of the area. Examples include:

- Consultation with Tāngata Whenua and invitation to Iwi to perform karakia prior to works and at the opening of new facilities.
- Reduced scale of future planning proposals partly in response to cultural issues.
- Proposal to reduce the number of lifts in the Tuku from five to three in order to mitigate cultural effects.
- Cultural awareness training for RAL staff.
- Response to opposition from Tāngata Whenua such as abandoning the Valley Express proposal and designing a new proposal which allows the removal of the Valley T-bar.
- Architectural design of buildings to create shadows over windows to prevent reflection, use of appropriate cladding materials and colours, consideration of terrain and viewpoints, minimising building footprints etc in response to visual and landscape effects.
- Avoidance of waterways and any ecologically significant areas.
- Harvesting of plants and lichen covered rocks prior to construction and replacement and site rehabilitation after construction. Ecological enhancement is also proposed.
- Steam cleaning of machinery prior to entry to the Park to prevent weeds and foreign plant species from establishing.
- Use of rock pining where possible to minimise earthworks and concrete required for foundations.
- Removal of structures over snow when possible.
- Use of helicopters to transport building components to site to minimise heavy vehicle access over the Ski Area.
- Individual management of each chairlift tower site for stormwater control during works.
- Removal of redundant structures. Over the last 20 years RAL has removed 10 lifts and 6 buildings.

The National Parks Act, Conservation Act, General Policy for National Parks and the TNPMP are the legislation and policies that protect the World Heritage status and values of the park. The TNPMP was adopted in 2006 after the IUCN 1990, 1993 and 2002 reports and recognises the Park's World Heritage Status and provides for its management in accordance with its status. Additional levels of protection are also afforded through the Resource Management Act 1991 and the resource consenting regime. The Ruapehu District Plan identifies the mountain as an Outstanding Natural Feature and Landscape and it is included within the Protected Areas Zone of the Plan. Also the Horizons Regional Council One Plan categorises the mountain as an Outstanding Natural Feature and Landscape.

The application seeks the retention of the existing boundaries of the Ski Area without modification or extension.

Summary prepared by IUCN (August 1990)[1] *based on the original nomination submitted by New Zealand and other sources:*

State of Preservation / Conservation

The park is valued for its landscape, cultural importance, ecological diversity, as breeding habitat for a number of threatened species and for recreation. The 1990 management plan was prepared by the Tongariro National Parks and Reserves Board and approved by the National Parks and Reserves Authority. The 1980 National Parks Act provides all protective, legal and administrative mechanisms for the park. - The park is classified into natural environment, two wilderness areas, two pristine areas and three amenity service areas. Skifield development has been restricted and developments are prohibited above 1,500m in the Tongariro and Ngauruhoe area, and above 2,250m on Ruapehu Sport hunting of introduced red deer, goats and pigs is permitted under license and programmes to eradicate lodgepole pine, heather and broom are undertaken. The relative paucity of wildlife stems from the nationwide problem of introduced species. Furthermore, native flora have been reduced by exotic herbivores such as red deer and possum. Invasive lodgepole pine threatened to convert native communities into forest and has been a particular problem in the eastern Rangipo desert area. The park receives up to 800,000 visitors annually, mostly during the ski season.

Justification for Inclusion on the World Heritage List

The Tongariro National Park Nomination, as presented by the Government of New Zealand, provides the following justification for designation as a World Heritage property:

a. Natural property

- Earth's Evolutionary History. The park lies at the south-western terminus of a Pacific chain of volcanoes aligned along a major tectonic plate boundary.

- Ongoing geological processes. The park's volcanoes contain a complete range of volcanic features. The related ecological succession of plant communities is of special scientific interest.

- Superlative natural phenomena and natural beauty. The main volcanic peaks are outstanding scenic features of the island.

b. Cultural property [evaluation of cultural attributes delayed till 1993]

[1] IUCN report appended

Natural criteria (UNESCO, 1988, Operational Guidelines for the Implementation of the World Heritage Convention)
ii – be outstanding examples representing significant ongoing geological processes, biological evolution and man's interaction with his natural environment as distinct from the periods of the earth's development, this focuses upon ongoing processes in the development of communities of plants and animals, landforms and marine areas and fresh water bodies.
iii – contain superlative natural phenomena, formations or features, for instance, outstanding examples of the most important ecosystems, areas of exceptional natural beauty or exceptional combinations of natural and cultural elements.

Comment:
The proposed licence for the existing Ski Area does not conflict with the 1990 justification for the Parks' inclusion on the World Heritage list. The Ski Area does not affect the geological history or ongoing geological processes which provided justification for the inscription. The third factor in justifying the Park's inscription is its superlative natural phenomena and natural beauty. The Ski Area was established at the time of the World Heritage inscription and an expansion is not sought. Each proposal within the licence area is carefully assessed in terms of visual and landscape effects. This requirement is written into the TNPMP (section 4.1.3 Landscape within the General Objectives and Policies and 5.2.4 Landscape Planning within the Ski Areas chapter of the TNPMP). This generally necessitates a detailed assessment of landscape and visual effects from a qualified and experienced landscape architect engaged by the applicant and a review by a DOC landscape specialist. This application includes such an assessment by LA4 landscape architects. The LA4 assessment concludes: *that overall the landscape and visual effects of the proposed developments will be no more than minor when considered in the context of the existing landscape and visual environment. The reduction in total number of lifts and the location of new lifts within a narrower corridor through the central ski area terrain will provide for some improvement, or reduction, in the overall landscape and visual effects. Detailed visual and landscape effects assessments will be required for each project as the development plans are finalised and resource consent applications and final DOC approvals applied for.* Accordingly, the proposal does not affect the original justification under the natural criteria for the Park's inclusion on the World Heritage list.

26 July 1993 Advisory Board Evaluation[2]:
The following attributes of the Tongariro National Park demonstrate its required integrity as a universally outstanding example of a culturally associative landscape:

- *The power of the unbroken associations of the Ngāti Tūwharetoa Iwi (Māori tribe) with the mountains since the landing of the Arawa canoe: the strong association is both a physical (Pacific "Ring of Fire") and a cultural (Ngato-roirangi) connection to their Pacific origins in the Hawaikis. The cultural links are clearly demonstrated in the oral history which is still a pervasive force for Ngāti Tūwharetoa. The peaks are spoken of with the same reverence and feeling as tribal ancestors, ensuring that the connection is one of spirituality as well as culture.*
- *The linkage of cultural identity with the mountains: Tongariro, Ngāti Tūwharetoa, and Te Heuheu are inextricably linked with the tribal pepeha (statement of connection to a tribe and an area) recited at any occasion hosted by the Ngāti Tūwharetoa Iwi.*

[2] IUCN report is appended

- *The cultural significance of the gift: Horonuku's gift in 1887 formed the nucleus of the first national park in New Zealand, and only the fourth in the world. Significantly, this gift was the first from an indigenous people. The spirit of this gift fostered the formation of the national park network in New Zealand, and thus has safeguarded some of the most outstanding landscapes in the world from development.*
- *The high recognition, throughout New Zealand, of the rich cultural tapestry woven between Ngāti Tūwharetoa and the Park.*

The outstanding natural values have already been recognized by World Heritage listing. The associative cultural values for Ngati Tuwharetoa and Te Atihaunui a Paparangi are inseparable from the natural qualities.

Cultural criteria (UNESCO, 1992, Operational Guidelines for the Implementation of the World Heritage Convention)
vi - to be directly or tangibly associated with events or with ideas or beliefs of outstanding universal significance. (The Committee considers that this criterion should preferably be used in conjunction with other criteria).

Comment:
The reasons for inclusion of the Park under the cultural criteria – Ngāti Tūwharetoa's unbroken association with the mountains, cultural identity linked to the mountains and high national recognition of Ngāti Tūwharetoa with the Park – are not degraded by the proposed licence. In recent years, RAL has implemented many changes to management, operations and planning within the Ski Areas to recognise the cultural values. Examples include minimising earthworks, consultation with Iwi on each project including the Indicative Development Plan, downscaling of upgrade plans, sponsorship to Kura Kaupapa skiing and snowboarding activities, cultural values included in RAL staff induction programme and notice to Iwi of any fatalities on the mountain to allow for karakia.

The TNPMP safeguards iwi involvement with various objectives and policies including:
5.2.1 Management of Existing Ski Areas – Objectives
e To ensure Tāngata whenua have opportunity for input into the development and management of the ski areas.

This equates in current practice to RAL undertaking consultation with Iwi prior to lodgement of a Works Approval application and DOC undertaking consultation with Iwi during processing of a Works Approval application. For the licence application a Cultural Impact Assessment has been commissioned and is expected to be completed by the end of February 2015.

Accordingly, the World Heritage status and the special values of the Park have been provided for and will continue to be incorporated into operations at Whakapapa Ski Area.

10. SUMMARY OF POLICY ANALYSIS

The proposed licence is provided for in the TNPMP. The TNPMP not only provides for the Ski Area but recognises the benefits of RAL operating both the Whakapapa and Turoa Ski Areas.

The TNPMP was written in accordance with its governing legislation and policy documents including the National Parks Act 1980, Conservation Act 1987, General Policy for National Parks 2005 and the CMS. Consequently, the licence is also well aligned with these statutes and policy documents. The licence is also supported by DOC's Destination Management Framework.

RAL have successfully responded to the challenges of operating within a World Heritage site and operate in a manner that befits the area's status. Overall, there are no policy reasons to decline the licence application and policy support for the proposal exists.

ELLA TENNENT-BACHER
CHEAL CONSULTANTS LTD
24 October 2014

Appendix 3

Assessment of Landscape and Visual Effects – LA4, Jan 2014

WHAKAPAPA SKI AREA – MT RUAPEHU
Indicative Development Plan
Assessment of Landscape and Visual Effects

January 2014

LA4 Landscape Architects
PO Box 5669, Wellesley Street
Auckland

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WHAKAPAPA SKI AREA – MT RUAPEHU
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1. INTRODUCTION

1.1 In July 2011, Ruapehu Alpine Lifts Ltd (RAL) prepared a draft 'Indicative Development Plan' (IDP) for the Whakapapa Ski Area. The plan was prepared as a requirement of RAL's licence from the Department of Conservation for the operation of the ski area. The draft IDP shows indicative location and scale of the proposed future developments.

1.2 In April 2012, LA4 prepared an Assessment of Landscape and Visual Effects for the new chairlift developments – the Knoll Ridge Express Chairlift and Delta Chairlift as the first stage of implementing this IDP, which has since gained resource consent from Ruapehu District Council and Works Approval from the Department of Conservation. LA4 Landscape Architects have now been requested by RAL to assess the landscape and visual effects of all improvements proposed within this IDP.

1.3 This landscape character and visual effects assessment has been prepared as part of the Assessment of Environmental Effects (AEE). A full description of the IDP proposal is included in the application and AEE prepared by Cheal Consultants.

1.4 The objectives of this assessment are to:

- provide an analysis of the existing alpine character and amenity values of the area; and
- provide a high level landscape and visual assessment of the proposed IDP to determine any effects that future development may be likely to generate.

1.5 Investigations of the Whakapapa site and surrounding Tongariro National Park area were carried out in March 2012.

2. ASSESSMENT METHODOLOGY

2.1 The key to assessing the landscape character and visual effects of the IDP proposals on this landscape is first to establish the existing characteristics and values of the landscape and then to assess the effects of this proposal on them. In accordance with the Resource Management Act this includes an assessment of the cumulative effects of future development combined with the existing developments on the mountain.

2.2 The methodology used in this assessment is designed to assess whether or not the IDP proposals would have a more than minor effect on the nature and quality of their surroundings. The following methodology has been used in this assessment:

Background Review

2.3 A review of the IDP in relation to the landscape and environmental aspects of the proposed developments was undertaken. Key landscape and environmental factors which would potentially be affected by the proposed developments were identified and reviewed.

Site and Landscape Evaluation – Landscape and Visual Environment

2.4 Detailed site investigations and an analysis of the ski area and surrounding alpine environment were undertaken as part of the 2012 assessment. The landscape character, visual and amenity values were identified and outlined and a photographic record of the site and surrounding environment compiled. Key landscape features and elements were identified and an analysis of the landscape values and the landscape's ability to accommodate change as a result of the proposed developments undertaken.

2.5 An analysis of the existing landscape and natural character of the site and surrounding environment was undertaken. This included aesthetic value (vividness, complexity, cohesion, legibility, and other less tangible values); natural character values including natural processes, patterns and elements and cultural associations; rarity; visual absorption capability including land uses, vegetation cover and type and topographic diversity and type; as well as exposure and visibility. The analysis identifies how vulnerable the ski area and surrounding environment is to change.

Visual Catchment and Viewing Audience

2.6 The physical area that would be visually affected by the proposed developments was defined. In turn, this indicated the range, type and size of viewing audiences that would be impacted upon.

Landscape Character and Visual Effects Assessment

2.7 A specific analysis and assessment was undertaken and key questions addressed derived from the very nature of anticipated effects on the landscape and alpine character. This process assessed the effects of the proposed developments and identified the aspects which were likely to have high or adverse visual, landscape or amenity impacts.

Statutory Considerations

2.8 A review of the relevant statutory documents was undertaken to identify the key landscape / visual related objectives and policies and to assess the IDP proposals against them. The key documents included the Resource Management Act 1991, Manawatu-Wanganui Regional Plan (the One Plan), Ruapehu District Plan and Tongariro National Park Management Plan.

Conclusions

2.9 An evaluation of the proposed IDP developments as a whole taking into account all the preceding analysis was undertaken in relation to potential effects on landscape character and amenity values. Conclusions were made in relation to the potential landscape and visual effects, landscape character and amenity effects of the developments including recommendations for avoiding, remedying or mitigating these effects.

3. THE INDICATIVE DEVELOPMENT PLAN

3.1 The major developments proposed throughout the planning period include:

- Knoll Ridge Express – will replace the Valley and Knoll Ridge T-Bars;
- Delta Chairlift – will replace the Waterfall T-Bar;
- Western Chondola – will allow the removal of the National and Rockgarden Chairlifts;
- Cornice Bowl T-Bar – relocation of the Far West T-Bar;

- Terminal buildings associated with the above facilities; and
- Snowmaking reticulation.

3.2 The proposed lift configurations will have the effect of concentrating lift facilities that extend into the Gift Area to a corridor extending through the central portion of terrain within the wider ski area boundary. This reduction in the number of lifts which extend onto these upper slopes of the ski area is an acknowledgment of the sacred nature of the Gift Area, and is intended to mitigate as far as is practicable the cultural effects of ski area operation and development.

3.3 The terminal buildings will be architecturally designed and will have a low horizontal profile with a relatively flat roof, over hanging eaves, and rooflines reflecting the characteristics of the topography. Building materials and colours will be selected to mitigate any potential adverse effects of the built forms and to integrate the buildings into the surrounding alpine landscape (both summer and winter). The buildings will be clad in low reflectivity materials including timber, colour steel roofing, rock and concrete. The colour palettes will comply with the Department of Conservation's specifications.

4. THE LANDSCAPE CONTEXT

Tongariro National Park

4.1 Tongariro National Park is located within the North Island Volcanic Plateau (Central Plateau) – a volcanic plateau covering much of the central North Island with volcanoes, lava plateaus, and crater lakes.

4.2 Tongariro National Park was the first national park to be established in New Zealand. The park is recognised by UNESCO as a World Heritage Site under two categories – natural and cultural, a status that recognises the park's important Maori cultural and spiritual associations as well as its outstanding volcanic features.

4.3 The focus of Tongariro National Park are the three mountain peaks – Mt Ruapehu, Mt Ngauruhoe and Mt Tongariro, which in 1887 were gifted to the people of New Zealand by Horonuku Te Heu Heu Tukino, the then Paramount Chief of the Ngati Tuwharetoa people. This gift was made to the people of New Zealand to be gazetted as a National Park for the use of all people. The upper slopes of Whakapapa Ski Area, including much of the available intermediate and advanced skiing terrain, are located within the original 'Gift Area'.

4.4 The three volcanoes and their glaciers, plants and animals represent a set of landforms and natural communities that have been recognised as outstanding heritage of international significance. The volcanoes are unique because of the frequency of eruptions, their highly explosive nature, and the high density of active vents.

4.5 Mt Ruapehu is the highest of the three volcanoes rising to a height of 2797m ASL. Mt Ngauruhoe lies to the northeast and rises to a height of 2287m ASL and Mt Tongariro lies adjacent to Mt Ngauruhoe at a height of 1967m ASL. Mt Ruapehu is an andesite cone that was once twice as high but has been eroded. All three cones are composite strato-volcanoes made up of layers of lava and tephra.

4.6 Snow cover on the upper mountains is generally above 2300m ASL in summer and 1400m ASL in winter. The park is extensively used year round for tramping, day walking, skiing, sightseeing, rock climbing and outdoor educational pursuits.

Whakapapa Ski Area

4.7 Whakapapa Ski Area is located on the north-western slopes of Mt Ruapehu and is New Zealand's largest ski area, with more than 67 trails spread across 500 hectares. The landform is comprised of a series of deep gullies, valleys, prominent ridgelines, peaks and relatively open areas. The ski area follows a well defined landscape boundary along its eastern edge. Te Herenga Ridge, Meads Wall, Whakapapa Valley and Pinnacle Ridge are all strong landscape elements. Te Heuheu Valley and ridge further define the upper limits of the ski area.

4.8 The ski area can be divided into three broad landscape areas – the area east of Delta Ridge and Hut Flat, the area west of Delta Ridge and the area above Knoll and Restful Ridges. The long remnant lava flow comprising Delta Ridge essentially divides the ski area in two. The eastern side is more diverse with dramatic landforms, rocky outcrops and cliff faces. The area to the west is more uniform with less pronounced landforms. Visually dominant natural elements include Whakapapanui Gorge, Pinnacle Ridge, the Amphitheatre, Te Heuheu Ridge and Whakapapa Glacier. These are noted for their high degree of natural character and high visual interest in the Tongariro National Park Management Plan.

4.9 Access to the ski area is via SH48 and Bruce Road. A number of buildings and facilities are located at the 'Top of the Bruce' including ski area administration offices, café, retail shop, rentals, ticketing, staff rooms, public shelter and first aid facilities. The ski area itself comprises a number of buildings and structures including the recently constructed Knoll Ridge café and CAT shed building, Happy Valley café and ski rental shop, Schuss Haus café, chairlift terminals, chairlifts, T-Bars, lift lines, toilets and servicing facilities and structures.

4.10 The vegetation of the Whakapapa Ski Area is sparse and comprises mainly mountain inaka *(Dracophyllum recurvum)* in stonefield. The plant cover above 2000m is generally much less than 5% while below 2000m it is about 10%. The predominant species within the Iwikau Village area is bristle tussock *(Rytidosperma setifolia)* which prefers sandy/gravel sites. Frost heave and mud action have prevented widespread plant establishment. Vegetation throughout the ski area is localised and sporadic, typically restricted to sheltered sites such as leeward slopes, bases of lava outcrops and gullies. The principal plant species within the ski area are anistome, mountain inaka, bristle tussock, everlasting daisy, gentian, mountain buttercup, mountain daisy and shrub senecio. The lower reaches of Mt Ruapehu comprises a mixture of mountain beech forest, shrubland and tussock. [1]

Whakapapa Village

4.11 Whakapapa Village is located on the lower slopes of Mt Ruapehu. The village lies in the Whakapapanui Valley floor and is bound to the west by the Whakapapanui Stream. The area still contains much of the natural vegetation with a large mountain beech forest *(Nothofagus solandri var. cliffortioides).* North and east of the forest edge the vegetation is predominantly red tussock grassland and subalpine scrub. The village comprises a number of accommodation, retail, service and visitor facilities including the heritage listed Chateau Tongariro.

[1] Tongariro National Park Management Plan, 2006-2016

Iwikau Village

4.12 Iwikau Village is located at the top of Bruce Road and comprises a high level of built infrastructure including forty seven ski club lodges and associated buildings. The main car parking area for the mountain and the RAL workshop is also located in the vicinity. A large car parking area is used to store and maintain the snow making machines over the summer months.

4.13 The mountain environment is constantly changing – daily and seasonally. The most marked differences occur seasonally. During winter, snow cover provides a very uniform and stark land cover in contrast to summer's complex patterning of the exposed rock. The degree of visual effects during the different seasons varies depending on the nature and visual characteristics of the proposal. During summer, well designed buildings or structures with recessive colours integrate well into the surrounding landscape. The same buildings however can create a stark contrast during winter, depending on the amount of snow cover. Daily weather conditions also affect the degree of visibility with frequent cloud cover often shrouding the upper slopes of the mountain.

Photograph 1: View towards Mt Ruapehu from State Highway 47

5. ASSESSMENT OF LANDSCAPE AND VISUAL EFFECTS

5.1 The first stage of this assessment established the existing landscape attributes and values of the ski area and surrounding environment. This second stage investigates the landscape and visual effects of the developments outlined in the IDP. Natural and human induced change is a constant within the landscape. Landscape change does not necessarily result in adverse effects. The key is to manage this in such a way that any adverse effects are avoided, remedied or mitigated.

Landscape Effects

5.2 Landscape effects take into consideration physical effects to the landscape and the likely consequences on landscape values, landscape character and amenity values as well as natural character.

5.3 The direct physical effects of the proposed developments on the landscape will result from construction earthworks. The earthworks required for the chairlift and T-Bar towers will have minor effects on the landscape following construction. The works are likely to require a combination of rock pinning and concrete footings. Following construction the disturbed surface will be reinstated as closely as possible to the pre-construction stage. Removal of the existing T-Bar towers will result in minimal disturbance initially. Over time the concrete foundations will be removed and the area will be reinstated.

5.4 The water pipe and mains power cable for the snow making reticulation will be buried in a shallow trench approximately 300mm deep by 400mm wide. The snow guns are removed during summer and the foundations remain permanently, which can be viewed by pedestrians when in close proximity. Set in the context of the Ski Area and existing infrastructure the snow gun foundations are not likely to detract from the experience of pedestrians during summer. Also, outside of the Ski Area there are many alpine areas of the Park to provide experience of a pristine environment free of any man-made structures.

5.5 During the summer months the lift towers and terminal buildings, when viewed from a distance, will blend into the surrounding rocky landform due to their recessive colours and materials. The towers and buildings will appear more prominent over the winter months due to their contrast with the snow cover. The degree of exposure and contrast will depend on the prevailing light levels and weather conditions at the time.

5.4 Earthworks for the chairlift terminal buildings will have a greater effect on the existing landform. However, in the context of the wider ski area, this additional landform modification is relatively minor and once reinstated will blend seamlessly into the surrounding natural rock landform in summer. In winter they will be indiscernible due to the snow cover. Minor earthworks will be required for the unload areas. Earthworks for the snow making reticulation will be of a small scale and can be undertaken in a manner that avoids adverse landscape effects.

Landscape Character and Quality

5.5 Physical effects to the landscape have the potential to manifest in flow on effects for the character and quality of the landscape. Landscape character is distinguished by a distinct, recognisable, and relatively consistent pattern of landscape elements and activities that combine to make an area distinctive. This includes built and natural elements, land use and other more intangible qualities. Landscape quality relates to landscape values, or people's perception of the biophysical environment and includes considerations such as naturalness, vividness, memorability, and rarity. Landscape effects in this regard are primarily dependent on the landscape sensitivity of a site and its surrounds. Landscape sensitivity is influenced by landscape quality and vulnerability, or the extent to which landscape character and values are at risk to change.

5.6 Although the ski area exhibits a relatively high degree of landscape character and quality, it also possesses an overall landscape character that can accommodate a certain amount of change without significant impacts. This is particularly so given the extent of modification associated with the ski area.

5.7 The scale and extent of change envisaged by the proposal are relatively minor both in the context of the site and the setting, therefore the effects of the proposal in landscape terms are considered to be low.

Natural Character

5.8 Natural character relates to the degree of 'naturalness' or modification of a landscape. Assessment of natural character therefore broadly assesses:

- Natural Processes – the underlying formative processes that have shaped and given expression to the landscape (geological, volcanic, ecological, fluvial etc.);
- Natural Elements – features within the landscape that are products of natural processes (landform, vegetation, waterbodies etc.);
- Natural Patterns – the natural expression or distribution of un-manufactured elements and features within the landscape; and
- Development / Land use – the presence or absence of development such as structures and buildings and the level of modification as a result of land use and management.

5.9 The natural character of the immediate surrounding area has been reduced somewhat in the past through development of the ski area and the resulting modifications in terms of buildings, ski lifts and associated infrastructure. Despite this, the wider area still retains a high degree of natural character by virtue of the outstanding volcanic features, mountainous landforms, cliff faces, scale and expanse of the landscape.

5.10 The natural character of the ski area has been modified with the existing chairlifts, T-Bar towers, lifts and lift operator shelters. The proposed developments will introduce an additional number of terminal buildings into the landscape, however these will be sensitively designed to minimise any adverse landscape or visual effects. The building footings and base areas will be formed with rock material excavated from the site.

5.11 The existing Valley, Knoll Ridge and Waterfall T-Bars are to be removed and replaced with two chairlifts (the Knoll Ridge Express and the Delta). The Far West T-Bar is to be relocated more centrally. The proposed chondola will allow the removal of the National and Rockgarden chairlifts. This will result in a reduced number of towers and concentrate development into a narrower and more discrete corridor. The Delta chairlift requires only very small operator shelters (less than $30m^2$). The terminal bulidings for the Knoll Ridge Express will be approximately $300m^2$ (upper terminal) and $600m^2$ (lower terminal). The terminal buildings for the chondola are expected to be of a similar scale and will allow the removal of the National and Rockgarden terminal buildings. The National drive station building is approximately $110m^2$ and the Rockgarden storage building is approximately $100m^2$ and will be removed as part of the proposal. The scale of the terminal buildings will increase, however this is offset by the overall reduction in the number of ski lifts at Whakapapa. In terms of patterns on the landscape, the replacement of the T-Bars will result in a reduced modification to the ground surface – without the need for a groomed track along the lift alignment.

5.12 The extent of the new development will be very localised and not of a scale to have a significant cumulative effect on degrading the natural character of the wider area.

Visual Effects

5.13 The assessment of visual effects analyses the perceptual (visual) response that any of the identified changes to the landscape may evoke. Visual sensitivity is influenced by a number of factors including its visibility, the nature and extent of the viewing audience, the visual qualities of the proposal, and the ability to integrate any change within the landscape setting. The nature and extent of visual effects is determined by a systematic analysis of the visual intrusion and qualitative change that a proposal may bring, specifically in relation to aesthetic considerations and visual character and amenity.

Visual Catchment and Viewpoint Selection

5.14 The visual catchment is the physical area that would be visually exposed to views of the proposed developments. The visual catchment is relatively confined due to the landform characteristics of the site and surrounds and largely restricted to the immediate environs of the ski area. Distant views towards the mountain will be obtained from State Highways 47 and 48 however at a distance in excess of 10 kilometres away the facilities will be difficult to pick out from the surrounding landscape, both during summer and winter months.

5.15 The viewing audience will therefore largely comprise recreational users of the mountain – skiers, trampers and climbers; visitors to the mountain utilising the facilities; scenic flights; and distant viewers from the road network.

Visual Effects Summary

5.16 The surrounding alpine environment into which the ski area developments are proposed has a good ability to absorb changes due to the existing landform and land cover characteristics. The landscape's ability to visually absorb the proposed developments is primarily determined by viewer distance from the subject site; visual character of the backdrop behind the subject sites; visual character of the landscape between the viewer and the subject sites; and orientation of the proposed development to the viewer.

5.17 The degree of likely visual effect is significantly influenced by the distance to the proposed development sites from the viewing locations. The proposed developments visual presence will diminish to a degree with increased viewing distance. Views of the chairlifts, T-Bar lifts, terminal and chalet buildings will be highly variable for the viewing audience – views will be lessened by distance, intervening landforms, backdrop landform, land cover characteristics and topography.

5.18 During the summer months the lift towers and terminal buildings will blend into the surrounding rocky landform due to their proposed recessive colours and materials. The towers and buildings will appear more prominent over the winter months due to their contrast with the snow cover. The degree of exposure and contrast will depend on the prevailing light levels and weather conditions at the time.

5.19 In visual terms, the scale and extent of change envisaged by the proposed developments are relatively minor in the context of the overall ski area and its setting. The chairlifts are replacing existing ski lift lines in a similar configuration and will result in an overall outcome of two less ski lifts. While the terminal buildings will result in additional built structures they are not likely to appear incongruous in the context of the ski area and will allow the removal of existing National and Rockgarden terminal buildings. Overall the visual effects of the proposed developments are considered to be low.

6. STATUTORY CONTEXT

6.1 Tongariro National Park is designated a world heritage site based on its outstanding natural and cultural values. Activities within the Tongariro National Park and Turoa Ski Area are governed by the following statutory documents.

Resource Management Act 1991

6.2 The purpose of the Resource Management Act is to achieve sustainable management of natural and physical resources. Section 6 of the Act sets out the matters of national importance that shall be recognised and provided for. Of particular relevance to this assessment are:

b. The protection of outstanding natural features and landscapes from inappropriate subdivision, use and development;
c. The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna;.

6.3 Section 7 outlines other matters which require particular regard including:

a. Kaitiakitanga;
b. The efficient use and development of natural and physical resources;
c. The maintenance and enhancement of amenity values;
d. Intrinsic values of ecosystems;
e. Recognition and protection of the heritage values of sites, buildings, places, or areas;
f. Maintenance and enhancement of the quality of the environment; and
g. Any finite characteristics of natural and physical resources.

Comment

6.4 The IDP proposals will not adversely affect the outstanding natural features of Tongariro National Park. The proposals within an existing ski area are an appropriate development in line with existing ski area infrastructure. The development areas are not located within areas containing significant indigenous vegetation.

Tongariro National Park Management Plan 2006 – 2016

6.5 The Tongariro National Park Management Plan identifies Tongariro National Park as an outstanding scenic landscape. The preservation and enhancement of the natural environment is one of the Plan's key objectives. The following sections are relevant to the proposed development:

Section 4 – Conservation Policy
4.1.3 Landscape
Objectives:

a) To retain the natural landscape of Tongariro National Park in perpetuity.
b) To restore landscape values where adverse effects of development have not caused irreversible consequences.
c) To ensure that infrastructure is designed and located to avoid impacts on landscape values.

Policies:
1 Facilities should be designed and sited to avoid impacts on landscape values.
2 Design of infrastructure should ensure that it will blend into the environment, reducing the impact of facilities on the landscape.
3 Where infrastructure is redundant it will be removed.

Comment

6.6 The scale and form of the proposed developments will ensure that the natural

landscape of Tongariro National Park will be retained. The proposed infrastructure, in terms of the terminal buildings, operator's shelters and lift towers, will not detract from the natural landform. While some minor earthworks will be required, these will readily integrate into the surrounding alpine landform. Existing rock will be utilised for the reinstatement work.

6.7 The terminal buildings will be architecturally designed to reduce any potential adverse effects of development. Four T-Bar lifts are to be removed and replaced with two chairlifts and a T-Bar lift – thereby reducing the overall quantity of above ground structures. Also the Rockgarden and National chairlifts will be removed and replaced with one chondola.

Section 5 – Ski Areas
5.2.1 Management of Existing Ski Areas
Objectives:

b) To assess future development and growth of ski areas against the overriding constraints of preserving natural resources and historical and cultural heritage of the park.
c) To minimise the adverse effects of ski area operations within ski areas.
d) To ensure that the operation of the ski areas does not adversely affect the experience of park visitors, the natural landscape, and the biophysical environment beyond ski area boundaries.

f) To limit the effects of large scale development and intensive use to existing amenity areas.

Policies
2 All major infrastructure including ski-lifts, buildings, car parks, roads and other major earthworks, should, wherever possible, be located within the amenities areas at Whakapapa and Turoa in order to avoid or mitigate environmental impacts and protect the park in its natural state. To provide for skiing within ski areas, exceptions may be allowed for locating ski-lifts and associated facilities outside of amenities areas where these cannot reasonably be located inside amenities areas.
5 All ski area planning and services will be of a high standard, appropriate to a park of Tongariro's environmental quality and international stature.

5.2.4 Landscape Planning
Objectives:

(a) To protect the landscape values of Tongariro National Park, utilising landscape planning methodologies.

Policies:
1 Areas of high natural value within the ski areas will be identified. Special consideration will be given to maintaining these values or minimising impact on them if development affecting these areas is necessary.
2 Improvement or upgrading of existing facilities, in preference to the construction of new facilities, will be encouraged and, if necessary, required.

3 Where existing facilities are replaced and new ones constructed, the redundant facilities and structures will be removed and the land will be restored to as near its original state as possible. The exception to this provision is the removal of septic tanks which form part of the Whakapapa Ski Area and village sewage scheme, where removal will be considered on a case by case basis. Also refer to section 4.1.17 Waste, Discharges, Contaminants and Noise.

4 Disused structures, cables or construction foundations, such as concrete pads for ski-lift towers, will be removed by the ski area in accordance with the agreed indicative development plan.

5 Any application for major works and/or terrain modification requiring disturbance of over 100 cubic metres of material will include an assessment, by an appropriately-qualified expert, of the landscape impacts of the activity against the values of this plan.

6 Site disturbance of new areas required for ski area infrastructure should be minimised.

7 The reintroduction of fines and seed source material from the site in order to provide a microclimate for plants will generally be required.

8 All disturbance of vegetated areas will require the preparation of a restoration plan to be approved by the department prior to work starting. That plan will be prepared by a suitably-qualified expert and will aim to restore disturbed areas to their original states.

9 All colour schemes used will be approved by the department. Dark matt colours are generally the most effective in the context of the volcanic environment.

10 The visual impact of ski area structures on areas of the park outside the ski area increases significantly with altitude. Therefore, particular attention will be given to the siting and design of lifts and buildings on the higher parts of the ski area, to reduce their visual impact. Any application will require an environmental assessment by an appropriately-qualified expert. This assessment will be peer reviewed by the department's technical specialists.

11 Disposal of material from terrain modification work should not be permitted unless there is a direct correlation with another prior-approved work requiring that clean material.

12 Any earthworks application and approval will contain an earthworks management plan which identifies mitigation methods to avoid or minimise impacts on visitors to the park or on the environment as a result of events such as extreme rainfall.

Comment

6.8 The proposed chairlifts and T-Bars will continue to be located within the ski area boundaries. The new chairlifts will closely follow the same alignment as the existing T-Bars and will have a similar number of lift towers. The Rockgarden and National chairlifts and terminal buildings will be removed and replaced with the Western Chondola. The Far West T-Bar is to be replaced with the Cornice Bowl T-Bar in the central portion of the terrain, thereby concentrating development centrally rather than spread across the mountain. The terminal buildings will be viewed in the context of the existing ski area development and will not appear out of context.

Horizons Regional Council – Proposed One Plan

6.9 The Whakapapa Ski Area falls within the Horizons Regional Council and Tongariro National Park is included in the Proposed One Plan as an outstanding natural feature and landscape as identified in Schedule F of the Regional Policy Statement. A number of characteristics and values are identified including visual and scenic characteristics – particularly the park's visual prominence in the region; geological features; recreational values – particularly tramping and snow sports; scientific value – particularly the volcanic landscape, ecological value and importance to tangata whenua. The relevant policies addressing landscape and visual components are outlined below.

Objective 7-2: Outstanding natural features and landscapes and natural character

(a) The characteristics and values of:

(i) the Region's outstanding natural features and landscapes including those identified in Schedule F are protected from inappropriate subdivision, use and development.

7.4.2 Landscapes and Natural Character

Policy 7-7 Regionally outstanding natural features and landscapes
The natural features and landscapes listed in Schedule F Table F1 must be recognised as regionally outstanding. All subdivision, use and development directly affecting these areas must be managed in a manner which:

(aa) avoids any significant adverse cumulative effects on the characteristics and values of those outstanding natural features and landscapes, and.

(a) except as required under (aa), avoids adverse effects as far as reasonably practicable and where avoidance is not reasonably practicable, remedies or mitigates adverse effects on the characteristics and values of those outstanding natural features and landscapes.

Comment

6.10 In assessing the effects of an activity on the outstanding natural features and landscapes, the criteria outlined in Table 7.2 – Natural Features and Landscape Assessment Factors, must be taken into account. The criteria include natural science factors, aesthetic values, expressiveness, transient values, shared and recognised values, cultural and spiritual values and historical associations.

6.11 Again here, the scale, nature and form of development proposed in the IDP will have minimal adverse effects on the identified values of the natural features and landscapes of the Tongariro National Park. The visual and scenic characteristics and particularly the park's visual prominence in the region will be retained. The proposed developments will have minimal impact on the geological features, volcanic landscape and ecological values.

Ruapehu Notionally Operative District Plan

6.15 Under the District Plan, the site is contained within the Protected Areas Zone. The following sections are relevant:

PA2.2.1 Objective

(a) Protection of the natural, amenity, historic, recreation and cultural values in the Protected Areas Zone.

PA2.2.2 Policies

(d) To maintain and enhance amenity values by ensuring that the adverse effects of inappropriate subdivision, land use and development are avoided, remedied or mitigated so as not to compromise the characteristics and features that create amenity value in the Protected Area Zone.

(e) To protect the finite characteristics of the Protected Areas Zone.

(f) To recognise Tongariro National Park, and in particular the volcanoes, as an outstanding natural feature, and to require protection of the Park and the volcanoes from the adverse effects, if any, associated with land use and development.

(g) To recognise, maintain and enhance the qualities and characteristics of the Protected Areas Zone that contribute to people's appreciation of the pleasantness, aesthetic coherence, and cultural and recreational values of the area.

(i) To protect outstanding landscape values from inappropriate use and

development.

6.16 The policies seek to ensure that the natural, amenity, recreation, historic and cultural values associated with the Protected Areas Zone are preserved. They recognise that the values of the protected areas enhance people's wider appreciation of the environment.

Comment

6.17 The proposed developments will not detract from the natural and amenity values of the Protected Areas Zone. They will enhance and extend the current recreational values available within the zone and the volcanic features will not be adversely affected. While the towers and terminal buildings will have an impact on the mountain landscape, they are replacing existing lift lines and will be viewed in the context of the surrounding ski area infrastructure. The Valley T-Bar is to be removed which will enhance the amenity values of the Te Heuheu Valley terrain. The Far West T-Bar is to be removed and more centrally located as the Cornice Bowl T-Bar, which will also enhance the amenity values of the western terrain within the ski area boundary. The proposed chondola will allow the removal of the Rockgarden and National Chairlifts.

PA 2.3.1 Objective

(a) Use and development of the Protected Areas Zone by individuals and groups as a natural, and as a recreational, resource while ensuring that any adverse effects on the environment are avoided, remedied or mitigated.

PA2.3.2 Policies

(a) To require all use and development be designed and sited so as to ensure that any adverse effects on the natural character and landscape values of an area are avoided, remedied or mitigated.

(c) To require all use and development to avoid, remedy or mitigate adverse noise effects.

(d) To require that the use and development of land within Tongariro National Park does not significantly detract from the amenity or intrinsic values of Tongariro National Park, and in particular the volcanoes.

(f) To provide for the improvement or upgrading of existing facilities generally in preference to the construction of new facilities.

(g) To restrict the area of site disturbance required for any development.

6.18 These policies seek to provide a framework whereby only development which is appropriate is established in the Protected Areas Zone. The policies take into account the sensitive nature of many of the areas included within the zone.

Comment

6.19 Any potential adverse effects of future development on the natural character and landscape values of the area will be minimised. The proposed developments have been kept within the ski area boundary and the towers generally follow a similar alignment and number as the existing T-Bar lifts that they are replacing (with the exception of the Cornice Bowl T-Bar and chondola). The terminal buildings will be architecturally designed and sensitive to the surrounding alpine environment to ensure the built forms will have minimal adverse effects on the natural character of the area.

6.20 The Tongariro National Park is identified as an outstanding natural feature and landscape (ONFL). The following objectives and policies provide for the protection of outstanding natural features and landscapes and in particular their

amenity and intrinsic values.

NL2.2.1 Objective

(a) The protection of the values of outstanding natural features and landscapes from inappropriate subdivision, use and development both within and nearby those identified areas.

NL2.2.2 Policies

(a) To protect outstanding natural features and landscapes from inappropriate subdivision, use and development both within and nearby those identified areas. In determining inappropriate subdivision, use and development the following will be taken into account – the degree to which the activity:

(i) Would adversely affect the values specified in Policy NL2.2.2
(ii) Is necessary to provide for the social or economic wellbeing of communities, or to provide essential utilities f services to the public; and
(iii) Avoids any significant adverse cumulative effects on the characteristics and values of those outstanding natural features and landscapes.

(c) To protect from inappropriate subdivision, use and development, the specified values associated with the following outstanding natural features or landscapes:

(vii) Tongariro National Park (particularly the volcanoes) and specifically its:
(1) Visual and scenic characteristics, particularly its visual prominence
(2) Recreational values
(3) Scientific value, particularly the volcanic landscape
(4) Ecological value, particularly the mountainous ecology and the extensive tussock grasslands and wetlands supporting rare indigenous fauna
(5) Cultural values and importance to tangata whenua

Comment

6.21 The proposed developments are an appropriate activity and will not adversely affect the outstanding natural features and landscapes. The chairlifts and T-Bar lift are to be located within the existing ski area and will be viewed in the context of the existing ski area infrastructure. While the Knoll Ridge Express upper terminal building will be located on a ridge it is a minor ridge upon which an existing structure is located and this project has been approved by DoC and Ruapehu District Council. The Rockgarden and National chairlifts and terminal buildings will be removed and replaced with the Western Chondola The scale and grandeur of the overall mountain will result in the proposed development being subservient to the surrounding landscape. The visual prominence of Mt Ruapehu will be unaffected by the proposal and the recreational values of the mountain will be enhanced through the provision of the proposed ski-lifts and additional snow making. The ecological effects of the IDP proposals have been assessed by Nicholas Singers and his assessment concludes that *'assuming that future management and development is undertaken in a similar fashion, in general environmental impacts are likely to be minor and acceptable within the parameters set by the Tongariro National Park Management Plan'*..

7. CONCLUSIONS

7.1 This assessment has taken into consideration the changes to the landscape character and amenity values which might occur as a result of the proposed developments outlined within the Indicative Development Plan 2011. There is a distinction between the visibility of built structures and any visual effects they may create. While the chairlifts, T-Bar lift, chondola and terminal buildings are in

relatively prominent locations within the ski area their effects will be entirely localised and will have no more than minor landscape or visual effects given the alpine context into which they are seen.

7.2 The indicative developments are consistent with this established landscape and ski area character and will integrate readily into the landscape setting. The developments can be visually accommodated within the alpine landscape without adversely affecting the character, aesthetic value and integrity of the wider environment.

7.3 The physical landscape effects are consistent with the type of change already occurring in the ski area and in this context the additional landscape effects the proposals will generate are not seen as significant.

7.4 In addition, the two proposed chairlifts would replace three existing T-Bars. The Valley T-Bar will be removed as part of the proposal and the Far West T-Bar is to be relocated more centrally (Cornice Bowl T-Bar). The National and Rockgarden chairlifts and terminal buildings will be replaced by a chondola. The overall result will be to concentrate infrastructure further into the ski area – narrowing the area containing large infrastructure.

7.5 For the above reasons it is my opinion that overall the landscape and visual effects of the proposed developments will be no more than minor when considered in the context of the existing landscape and visual environment. The reduction in total number of lifts and the location of new lifts within a narrower corridor through the central ski area terrain will provide for some improvement, or reduction, in the overall landscape and visual effects. Detailed visual and landscape effects assessments will be required for each project as the development plans are finalised and resource consent applications and final DoC approvals applied for.

Rob J Pryor, Registered NZILA Landscape Architect
LA4 LANDSCAPE ARCHITECTS
January 2014

Appendix 4

Ecological Assessment

Ecological Assessment of the Whakapapa Ski Area

Prepared for Ruapehu Alpine Lifts Ltd

Nicholas Singers Ecological Solutions Ltd. 44 Raukura Street, TURANGI 3334

December 2013: Document number 23a:2013/2014

Ecological Assessment of the Whakapapa Ski Area. Prepared for Ruapehu Alpine Lifts. © Nicholas Singers Ecological Solutions January 2013, Contract report number 22/2013-2014.

Contents

1. Introduction

The Whakapapa Ski Area is approximately 500 hectares in size (DOC 2006) and is operated by Ruapehu Alpine Lifts Ltd (here-after referred to as RAL). RAL have a licence to operate the Ski Area to 2019. The 10 year plan for the Whakapapa Ski Area (RAL 2011) proposes several multi-million dollar investments upgrading ski-lifts and developing new snow-making infrastructure. Financial return of these proposed developments however occurs over a decade or more, and for these to occur, absolute security in the licence to operate must be guaranteed. As the current license has now only 6 years of tenure remaining, RAL have decided to reapply for a licence to operate for another 60 years, before investing in these upgrades. This ecological assessment was undertaken to provide support to this licence application. This report describes the ecology of the Whakapapa Ski Area and assesses the impact on this from both past and future management of the Ski Area.

2. Whakapapa Ski Area and the Indicative Development Plan 2011

Skiing has been occurring at Whakapapa for at least 100 years — the Ruapehu Ski Club was formed in 1913 (DOC 2006). Major development of the Ski Area occurred from the 1950's onwards with the installation of rope tows, ski lifts and club huts. In the last 20 years RAL has undertaken significant upgrading of the older infrastructure including replacing old lifts and installation of ski making infrastructure. Snow making technology and snow fences in combination with better groomers has changed the way the Ski Area operates allowing snow to be made, harvested, relocated and then groomed to more efficiently cover Whakapapa's rocky terrain. This has almost eliminated the need for terrain modification.

The Whakapapa Ski Area Indicative Development Plan 2011 is a requirement of operating the Ski Area within Tongariro National Park (RAL 2011). This 10 year plan sets out the proposed development programme and includes an overall reduction of the number of chairlifts, T-bars and associated buildings. The plan aims to provide for more efficient transportation of skiers, together with enhanced snow making, consolidating and better utilising the core Ski Area. It proposes to achieve this through the construction of new lifts and relocation of others with associated increases in snow making infrastructure.

3. Tongariro National Park Management Plan

The Tongariro National Park Management Plan (2006–2016) contains a comprehensive set of objectives and policies (Part V; DOC 2006) which all Ski Areas operations and developments must be consistent with. Tongariro National Park is a world heritage area and the operation and management of the Ski Area was strongly scrutinised during its nomination process. These policies aim to achieve a high quality recreational experience for skiers, while minimising the adverse effects of operating the Ski Area on natural resources, and the historical and cultural heritage of the park. The objectives and policies ensure both RAL (as the licensee of Whakapapa) and the Department of Conservation (as the licensor) transparency of approach in managing the Ski Area. From an ecological and environmental perspective the management plan provides a tight set of policies which attempts to avoid most of the environmental impacts with operating the Whakapapa Ski Area.

4. Background ecological information

The most comprehensive ecological studies undertaken within Tongariro National Park, which include the Whakapapa Ski Area, were undertaken by Scott (1977) and Atkinson (1981). Scott (1977) published three significant scientific papers from his Ph.D. research on the above tree line ecology at Whakapapa. He described fine scale communities and related individual plant species distribution to environmental factors at a micro-site scale. In contrast Atkinson (1981) broadly sampled and mapped the main vegetation types of Tongariro National Park.

RAL have also commissioned an ecological assessment of the proposed site of the new Knoll Ridge Express Chairlift, Delta Double Chairlift and snow making (Sylvester 2012).

5. The environment and ecological character of the Whakapapa Ski Area

The Whakapapa Ski Area is located on the north western side of Mt. Ruapehu, an active andesitic volcano of at least 200,000 years age (Molloy & Smith 2002). The Ski Area is situated between approximately 1500m and 2300m a.s.l. The environment is alpine and due to the high altitude experiences cold average temperatures, frequent frosts which occur in all months of the year (Scott 1977) and a very short growing season. Rainfall is frequent and comparatively high being exposed to the prevailing westerly flows — and likely to be considerably greater than the 2914mm average at Chateau Tongariro at 1119m a.s.l. (Atkinson 1981). Rainfall events are often intense and in combination with the steep terrain result in high levels soil disturbance along the numerous (mostly) ephemeral streams and channels. Outside of summer, precipitation often falls as sleet and snow and during winter, the Ski Area is covered for many months with snow.

The area is naturally dynamic and is frequently, wholly or partially disturbed by volcanic activity such as being covered in volcanic ash during eruptions. Lahars from Mt Ruapehu Crater Lake also occur within the catchments of the Whakapapanui and Whakapapaiti Streams and areas which experience lahars or flash floods are almost entirely devoid of plant life.

The physical terrain is highly varied with areas of bare lava pavement and lava bolder-fields, cliffs and areas of accumulated scoria and ash, the latter occurring in the small areas of low gradient terrain. Bare rocks and boulders are a dominant feature especially at higher altitude and can comprise more than 80% of surface cover. Vegetation is most common adjacent to and between boulders where soil depth is greatest and some protection from the environment is provided. Soils are of low to very low fertility and are moderately acidic due to the inputs from eruptions (Scott 1977). On the Ski Area soils are most well developed at lower altitude, while soils are raw and skeletal at higher altitude. Soils are composed of a raw andesitic ash and scoria emitted during eruptions, along with fine wind-blown particles and have very little organic matter. Despite being extremely free draining, periods of moisture deficit almost never occur (Scott 1977).

The Ski Area is entirely situated within the alpine environment. The main building complex at Iwikau Village at approximately 1600m a.s.l., equates to the upper altitudinal limit of tall tussock grasses in adjacent mountain ranges such as the Kaimanawa Range. This boundary marks the upper boundary of the low alpine environment and the lower limit of the high alpine environment (Mark & Dickinson 1997). Tall tussocks are usually abundant below this altitude, down to the tree line within “typical”

axial range alpine areas of New Zealand. On Mt. Ruapehu, apart from some small patches, tussock grasses are only dominant below 1400m a.s.l., below the Ski Area boundary, while above this altitude both red tussock and snow tussock are present but are rare. In this zone vegetation communities are dominated by plants more commonly associated with the high alpine environment, at approximately 200m lower compared to "typical" axial range mountains. This suppression of the dominance of tall tussock to below 1400m a.s.l. is a characteristic feature of the alpine vegetation of Tongariro National Park.

Above the tussock line the plant communities are dominated by five main species; woolly moss (*Rhacomitrium lanuglosum*), bristle tussock (*Rytidosperma setifolium*), curved leaved neinei (*Dracophyllum recurvum*), snow berry (*Gaultheria colensoi*) and ever-lasting daisy (*Anaphalioides bellidioides*), though at least 40 other species are known (Scott 1977a). Most of the Ski Area has been mapped as *Dracophyllum recurvum* gravelfield/stone field (Atkinson 1981).

Altitude is the main environmental factor which affects plant species composition with species diversity being greatest at the lower ski area boundary and progressively declining with increasing altitude, as the tolerance of species is exceeded. The maximum upper limit of vascular plants is close to the altitude of the Knoll Ridge Café at 2012 m a.s.l. where blue tussock, bristle tussock and mountain carrot (*Anisotome aromatica*) occur. Higher still lichens and a few bryophytes (mosses and liverworts) occur on bare rock surfaces and in small crevices. Life however exists higher still with red snow algae locally occurring in areas of permanent snow and ice.

In comparison to other alpine areas in New Zealand, the alpine flora of Tongariro National Park is species poor with no species that are endemic to the park. Despite this, the composition and ecological character of the plant communities are unique to the volcanoes of the central North Island. The alpine flora however supports a wide range of insects and invertebrates and these provide food for larger fauna such as New Zealand pipit, and locally reptiles. A small population of the banded dotterel (*C. bicinctus* subsp. *bicinctus*) is still present on the eastern side of Mt. Ruapehu, in late summer foraging at high altitude. Historically the New Zealand dotterel (*Charadrius obscurus aquilonius*) and mutton birds also occupied and bred in the alpine environment (Cockayne 1908).

This low plant diversity is likely a result of the regular effects of volcanism and the resulting disturbance to vegetation. Alpine species present are likely highly resilient to the effects of volcanic eruptions as well as being tolerant to the soil conditions these events create. Personal observations from the recent (2012) Te Maari eruption on Mt. Tongariro support this view. Despite many plants being covered with ash and/or scorched by hot gases and fluids, many plant species have quickly recovered, pushing through the layer of ash and re-sprouting from dormant epicormic buds.

The most diverse alpine plant community type which occurs at this altitude on Mt. Ruapehu is situated around seepages, small springs and in the spray zone of water falls — a type of wetland is known as an "alpine flush or seepage". Alpine flushes are small in size and provide habitat for a wide range of alpine wetland species including the iconic "mega-herb" mountain buttercup (*Ranunculus insignis*). This was purposely surveyed for but is not known to be present within the Whakapapa Ski Area, though it was observed on Pinnacles Ridge and Whakapapanui Valley below Skippers Canyon and has been observed within the upper Whakapapaiti catchments (Singers et al. 2012), all outside

of the Ski Area boundary. It is most abundant south west of the Ski Area boundary especially in the headwaters of the Makatote and Mangaturuturu catchments (Singers et al. 2012).

6. Ecology of the Whakapapa Ski Area

6.1 Vegetation composition

Vegetation of the Whakapapa Ski Area is strongly influenced by altitude and secondarily landform and soil cover. Three vegetation communities were identified.

1. Between 1500 m and 1600 m a.s.l. amongst lava boulder-field and interspersed with patches of scoria gravelfield, woolly mossfield dominate (Fig's 1 & 2). Vegetation is generally less than 30cm high and is composed of islands of vegetation between a protruding boulder-field. Vegetation composition was qualitatively sampled at the bottom of the Ski Area off Bruce Road and is dominated by woolly moss = 30–60% cover; curve leaved neinei = 5–15%; snow berry = 1–5%; whipcord hebe (*Hebe tetragonia*) = 1–5%, bristle tussock = 1–5%, *Brachyglottis bidwillii* = 1–2% and bare rock and soil = 40–50%. Several other species were recorded in this community at low abundance (see Appendix 1 for a full plant species list).

Figure 1: Woolly mossfield (white patches) and curve leaved neinei and snow berry (brown) amongst andesitic lava boulderfield

Figure 2: Typical patch of woolly mossfield associated with curve leaved neinei, bristle tussock and mountain snow berry

2. Between 1600 m and 1840 m a.s.l. vegetation cover declines to approximately 20–30% amongst lava boulder-field interspersed with patches of scoria gravelfield (Fig. 3). Curved leaved neinei, *Brachyglottis bidwillii* and woolly moss decline in cover and eventually disappear with increasing altitude. West of Hut Flat vegetation cover was qualitatively sampled and is dominated by curve leaved neinei = 10–15%; bristle tussock = 10–15%, snow berry = 5–10%, *Brachyglottis bidwillii* = 1–5% and bare rock and soil = 70–80%. (see appendix 1 for a full plant species list).

3. Above 1840 m to 2100 m a.s.l. vegetation cover is typically <10% cover amongst bare lava boulder-field interspersed with patches of scoria gravelfield of >90%. Vegetation cover is less than 1% cover at the upper limit of vascular plants, though locally in more suitable sites vegetation cover is higher, such as on a small scoria gravelfield east of the Amphitheatre where bristle tussock and blue tussock together are approximately 20–30% cover (Fig. 4). Near the top of the Amphitheatre vegetation cover was qualitatively sampled and is dominated by bristle tussock, blue tussock (*Poa colensoi*), Hell's bells (*Anaphalioides bellidioides*) and occasional mountain carrot and *Parahebe spathulata*, occupying a few percent cover each (see appendix 1 for a full plant species list).

Figure 3: Typical vegetation in community 2 of curve leaved neinei, bristle tussock and *Brachyglottis bidwillii* amongst ski field infrastructure.

Figure 4: Bristle tussock and blue tussock amongst a scoria gravelfield on the eastern margin of the Amphitheatre. Very sparse vegetation cover occurs adjacent to this area.

6.2 Species of significance

The alpine ecosystem of Tongariro National Park contains a few species of significance that are either threatened or at risk from extinction. The Whakakapapa Ski Area provides habitat for two species of significance including *Pimelea microphylla* (Fig.5) and the New Zealand pipit (Fig.6), both at risk species (de Lange et al. 2013; Robertson et al. 2013).

- *Pimelea microphylla* (At risk; de Lange et al. 2013) historically occurred from the Kaingaroa Plateau, to Waiouru, including Kaweka and Kaimanawa Ranges, though outside of Tongariro National Park is uncommon. On the andesitic volcanoes of Tongariro National Park, it is locally common especially above the tree-line. It is present within the Whakapapa Ski Area below Iwikau Village growing in gravelfield — woolly moss-field community.
- New Zealand pipit (*Anthus novaeseelandiae novaeseelandiae*) (At Risk; Robertson et al. 2013) occurs throughout New Zealand in open habitats. In Tongariro National Park it occurs above and below the tree-line. Multiple N.Z. pipit were observed feeding on invertebrates within the Whakapapa Ski Area and likely use the area for feeding and potentially for breeding over summer.

Figure 5: *Pimelea microphylla* in flower. *Pimelea microphylla* is locally common in the lower Whakapapa Ski Area often growing with woolly mossfield

Figure 6: New Zealand pipit, locally common within the alpine environment of Tongariro National Park

An unidentified species of sun orchid was observed within the lower Ski Area which though not flowering appeared to be the taxonomically indeterminate and data deficient species — *Thelymitra* aff. *longifolia* (CHR 537579; Whakapapa). This orchid is known from scoria flat and elsewhere around Whakapapa Village. In my opinion this orchid is not threatened though is potentially at risk being naturally uncommon.

Tongariro National Park contains few lizard species especially above the tree line. No lizards are known from the Whakapapa Ski Area however the absence of proof does not amount to true absence. During alpine flush survey work (Singers et al. 2012) a speckled skink (*Oligosoma infrapunctatum*) was discovered near Turoa Ski Area at approximately 1650m a.s.l. and this species may be present on the lower slopes at Whakapapa. The speckled skink is an at risk species (Hitchmough et al. 2013).

6.3 General ecological condition

Outside of the construction "foot print" the vegetation of the Whakapapa Ski Area is highly natural and intact with very few invasive species present. This vegetation supports communities of insects and invertebrates and larger fauna such as N.Z. pipit. The most significant ecological pressures present here are from hares, which browse some palatable plant species such a snow tussock (*Chionochloa pallens*), and invasion of environmental weeds. Heather is present at very low abundance in the lower Ski Area and is the most significant introduced species present within the Ski Area, and long term could displace many native species and associated wildlife. Mouse-eared hawkweed (*Heiracium pilosella)* and *Sagina procumbens* were also seen though both are uncommon. Several other introduced weeds and one native species which is not indigenous to Mt Ruapehu were observed, though are almost exclusively restricted to around buildings or roads within the Iwikau Village. Introduced weed species include; creeping bent (*Agrostis stolonifera*), lotus (*Lotus pedunculatus*), large-leafed plantain (*Plantago major*), narrow leafed plantain (*Plantago*

lanceolata), willow herb (*Epilobium ciliatum*), buttercup (*Ranunculus repens*), landcress (*Cardamine hirsuta*), moused eared chickweed (*Cerastium fontanum*), granny bonnet (*Aquilegia* sp.), rye grass (*Lolium perenne*), purging flax (*Linium catharicum*), sheep sorrel (*Rumex acetosella*), Yorkshire fog grass (*Holcus lanatus*) and St.Johns wort (*Hypericum perforatum*). A likely South Island alpine bidibid (*Acaena* sp.) was observed near the Matamata Ski lodge. These weeds were mostly found around ski lodges which have separate concessions from RAL. In my opinion these weeds currently restricted around buildings are unlikely to spread far, favoring areas of nutrient enrichment around buildings, so pose minimal threat to the natural values of the Whakapapa Ski Area.

7. Assessment of past effects on indigenous biological diversity

7.1 General Construction

The natural bare rock and lava boulder-field terrain of the Whakapapa Ski Area provides a high level of natural protection for the alpine vegetation present. Vegetation is mostly located between boulders and in crevices and as most human activity occurs during winter, snow cover further provides an additional level of protection for the vegetation.

Section V of the Tongariro National Park Management Plan further provides a strict set of objectives and policies which RAL operates to. Many of these policies have been specifically included to avoid or mitigate the environmental impacts of operating a Ski Area on the parks natural resources. In general these policies are extensive and thorough and in my opinion appear to be effective. Specific examples include transportation of heavy structures e.g. ski-lifts and machinery over snow (TNPMP 5.2.11) — avoiding impacts to landforms and vegetation. Standard practice for RAL is the removal of soil and plants prior to construction, sterilisation of machinery before entering the park, and these are included in Construction Management Plans for each project.

The past environmental impact to the natural values of the Whakapapa Ski Area has largely occurred where construction and landscape development has occurred. Iwikau Village consists of multiple buildings for operating the Ski Area such as café, ski shop, offices, workshops etc. and 47 club lodges (independent from RAL). Loss of vegetation and natural character has largely been restricted to the actual foot print of the buildings and surrounding land including roads, car parks, tracks, ski trails, ski lifts and other infrastructure.

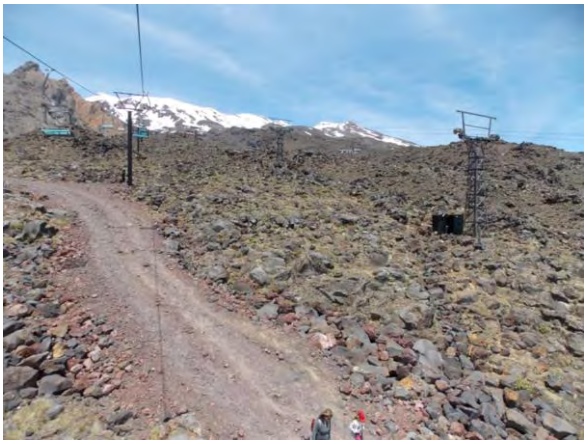

Figure 7: Vehicle and foot track to hut flat with indigenous vegetation of high natural character on either side and amongst other ski field infrastructure such as lift towers

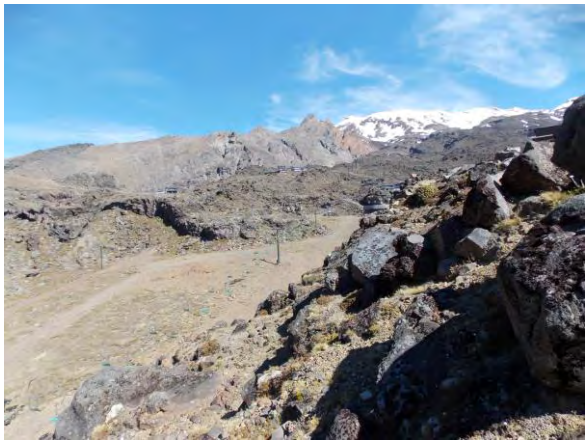

Figure 8: Happy Valley. Past terrain modification removed large rocks. Vegetation e.g. bristle tussock appears to be increasing as a result of restoration and natural recovery

Some terrain modification has occurred, creating areas with very limited vegetation, though in comparison to the Turoa Ski Area the scale of this is minor. This construction and landscape development has undoubtedly had a considerable impact on the vegetation where this occurred however, where the terrain has not been modified, vegetation is largely intact and highly natural (Fig.7).

The vegetation of the park is not static and some localised vegetation recovery has occurred following modification during development (Fig.8). For example, bristle tussock is arguably more abundant now within the floor of the Happy Valley ski area than before terrain modification occurred. RAL undertook a significant tussock restoration project in Happy Valley over an 8 year period from 2002. The area could potentially develop into dense short tussock grassland. Though this landscape is "unnatural", recovery of vegetation cover by native species is helping to remedy some of the initial impact from terrain modification.

The reticulation and disposal of sewerage from the Iwikau Village (approximately half of which was funded by RAL) appears to also have had some positive environmental benefits. Prior to reticulated sewerage disposal, "green zones" occurred around several of the ski lodges (which are not owned or operated by RAL) where nutrients from septic tanks over-flowed and reached the surface. This facilitated the growth of several bright green weed species such as exotic grasses, strongly contrasting to the dark colour of the surrounding rocks. Though no photos show the change, these "green zones" of introduced plants seem to have virtually disappeared (pers.obs).

7.2 Snow making

Snow making and the use of snow fences have resulted in both positive and negative environmental impacts on the Ski Area. Snow making requires water which is pumped from Waipuna Stream, a tributary of the Whakapapanui River, and then stored in a reservoir. This has negligible impact on the aquatic ecology of the Whakapapa River because the take is minimal compared to the river's flow. Water from the reservoir is then pumped further up the mountain when needed for snow making. The negative environmental impact of this occurred during the construction of this infrastructure, which further increased the "foot print" of development on the Ski Area. However along with the use of snow fences to capture snow, snow making has almost removed the need for future terrain modification, which has a much greater ecological impact on the landforms and vegetation. For example, in areas on Turoa where extensive terrain modification occurred vegetation cover is <10% today, while adjoining areas that were not modified have approximately 30% cover.

7.3 Petrochemicals

The Whakapapa Ski Area requires large quantities of petrochemicals for its operations, including diesel for emergency electricity generation to drive lifts if and when power cuts occur. Small spills of petrochemicals have occurred in the past usually as a result of human error (pers.com H.Scheltus Department of Conservation works officer). These have generally been decontaminated by removing any contaminated soil and disposing to landfill.

Spills of diesel or light oils occur infrequently but carry a very high risk of causing pollution — the risk of pollution being relative to the volume spilt. Diesel poses the greatest risk of pollution because large amounts are stored on the Ski Area and as witnessed at Turoa recently (2013), and an earlier incident (1979) could leak into the environment. Diesel is ecotoxic to biological life and especially to aquatic organisms. Aquatic organisms are especially sensitive because diesel coats gills and breathing organs resulting in impaired oxygen transfer and in extreme cases suffocation. Mortality of aquatic organisms has been observed at low rates of exposure, e.g. 35 ppm or (Khan et al. 2007) which equates to 35ml of diesel per cubic metre ($1m^3$) of water. As diesel is lighter than water it floats and therefore in slower moving areas, fewer aquatic organisms would be exposed. In turbulent flow most aquatic organisms could be exposed. Thus, because the Waipuna Stream is a high gradient turbulent stream, if a significant diesel spill were to enter it, death of aquatic life could occur, at least until the Waipuna Stream entered the Whakapapanui River where dilution would likely be sufficient to reduce the threat. The Whakapapa River contains significant populations of whio, long finned eels and is a highly valuable recreational trout fishery. These species could be affected either directly or indirectly through ecosystem impacts. Diesel spills onto soil pose significantly less risk to biological life.

The effect of the 1979 heating oil spill into the Makotuku River catchment at Turoa was extensively studied because the author had undertaken monitoring in the Mangawhero and Makotuku Rivers only a short time before the spill occurred. This study showed that mayflies (regarded as an indicator species of stream quality health) were completely absent in the upper catchment but where not affected at the lower park boundary. Aquatic lichens and mosses had also been killed below the park boundary on the Makotuku River (Michaelis 1983). No dead fish or whio were observed following the spill but were absent on the Makotuku River. In the upper catchment (worst affected) areas, such as the Mangawhero falls, recovery of stoneflies took up to a year. The study concluded overall that the environmental impact had been minimal though largely because of fortuitous circumstances — the timing and location of the spill which combined with significant rainfall following, in a catchment which has numerous streams that enter, resulted in rapid dilution. Similar intense rainfall occurred following the September 2013 spill. It is therefore reasonable to conclude if a spill occurred in a month of low stream flows and nil or limited rainfall occurred in the following week, the impacts on stream life could be significantly worse.

7.4 Summer recreation use

Summer recreation use of the Whakapapa Ski Area has increased in the last decade and is likely to further increase in future. Summer use by a larger number of people walking over the terrain has the potential to cause deleterious impacts to vegetation and soils, if not adequately controlled. Some of this use however is occurring independently of RAL and therefore solutions to resolve impacts from it should potentially involve the Department of Conservation where they occur, especially at lower altitude where vegetation cover is greatest. For example, following the exposure of the Lord of the Rings trilogy a large number of people now walk to Meads Wall — likely to photograph Mt Ngauruhoe (or Mt. Doom). This area has been impacted significantly by foot traffic. Better trail management to avoid impact to plants and soils here would likely remedy this impact.

RAL promotes walking within the Ski Area though currently most people ride ski-lifts up and down the mountain and do not use the trails, or only walk from Hut Flat down the access road to Iwikau

Village and have no impact on vegetation and soils. The walking trails above Hut Flat, e.g. Amphithreatre Trail, cover difficult terrain and are suitable only for experienced and fit walkers so have limited use.

8. Potential effects of proposed developments

The Whakapapa Indicative development plan (IDP) proposes several facility upgrades. Several of these are proposed for the upper slopes (e.g. Knoll Ridge Express and Cornice Bowl Chair) where from an ecological impact there is negligible impact because they occur above the altitude of vascular plants. The Knoll Ridge Express and Delta Double chairlifts have already gained approval from the Department of Conservation and resource consent from the Ruapehu District Council. The most ecologically significant developments of the IDP are those at lower altitude, such as increasing snow making from Iwikau Village to the western slopes above the Amphitheatre area. This proposal will require a narrow corridor of pipe to be trenched through highly natural landforms and vegetation. Prior to this occurring, the actual pipe line should be more thoroughly assessed and areas of higher ecological value avoided, at least where vegetation cover is greatest at lower altitude.

Overall, the indicative development plan will however result in a reduction in lifts and removal of some redundant buildings. The Tongariro National Park Management Plan regulates how these developments will be undertaken the impact should be minimal assuming careful design is undertaken and site rehabilitation where required (as done in Happy Valley).

9. Recommendations

The Tongariro National Park Management Plan provides a strict set of objectives and policies for managing the Ski Area. These are extensive and thorough and readers of this report should be cognisant of this plan and the constraints it places on RAL. However the following recommendations are made.

9.1 Petrochemical storage

Bunding of large tanks used to store diesel and other hazardous substances is now common practice to minimise the likelihood of contamination of soils and aquatic ecosystems, should there be an accidental discharge from the tank. Without bunding, if equipment failure or human error occurs large quantities of diesel could enter the environment. All current large storage tanks at Whakapapa are double skinned to comply with the current New Zealand best practice, though are not bunded. It is understood that RAL have commissioned an independent review of hazardous substance storage and practices for both Whakapapa and Turoa Ski Areas. Improvements such as bunding or alternative systems that may provide enhanced environmental protection compared to current New Zealand best practice should arise from this review.

9.2 Vegetation restoration

Vegetation modification and loss has occurred in parts of the Whakapapa Ski Area and ideally some localised vegetation restoration specifically around Iwikau Village and at lower altitude should be

undertaken to remedy this loss. The alpine environment at Whakapapa is an extremely difficult environment to undertake vegetation restoration in.

There has been a noticeable increase in vegetation cover in Happy Valley owing to RAL's active restoration of this area. Locally, where vegetation is still sparse, some more restoration could be continued. High use areas have lost much of their soil so vegetation restoration would require the addition of a suitable soil. Vegetation recovery could be promoted through addition of a suitable soil, such as a local weed free volcanic sub-soil (B horizon) (Fig.8). Alternatively, the use of small quantities of (liquid) fertiliser applied during the growing season where vegetation already exists would increase plant growth (as infertility is a major limiting factor to plant growth in this environment). Any application of fertiliser would need approval from the Department of Conservation and would need to be carefully applied and monitored. This restoration this is not required as part of the licence and would be over and above RAL's responsibilities.

As the natural character of vegetation is patchy growing amongst dominant lava boulder field, placing small islands of soil between rocks to create vegetation islands would be more appropriate than a blanket covering of soil. This method could be trialled in other construction areas such as after snow making pipe lines have been built. Any restoration technique used should be monitored to determine its success.

Figure 8: Restoration of an eroded area on Mt. Jeju, Korea using a sterilised local sub-soil placed within biodegradable bags. These bags encouraged natural vegetation colonisation and degraded over time. The eventual result was areas that were fully restored and highly natural.

9.3 Heather Control

Heather is invading into the lower areas of the Whakapapa Ski Area, though it is still rare, but poses a significant long term threat to the areas natural character. The Department of Conservation does not however undertake specific heather control in adjoining areas, such as Scoria Flat where it is increasing in abundance. The Department has however introduced a biological control agent, the heather beetle (*Lochmaea suturalis*) to control it, which is exerting a significant effect at several lower altitude sites (e.g. 1000m a.s.l on the Desert Road). Unfortunately it is thought that the strain

of heather beetle introduced may not be ecologically suitable to living at high altitude, and therefore is unlikely to exert any control over heather on the Ski Area.

Chemically controlling heather within the Whakapapa Ski Area is however currently feasible and would be cost effective if undertaken within the next 3–5 years. Heather is spreading into the Ski Area independently from RAL's operations and RAL however has no requirement as part of the licence. Controlling heather within the Ski Area would therefore be over and above RAL's responsibilities. Never-the-less heather poses a significant ecological threat to the ecology of the Ski Area and it is therefore recommended that RAL at least assesses the feasibility of undertaking heather control within the lower Ski Area. This should also include discussing the feasibility or options for managing it with DOC, especially considering that DOC's new structure is partnership focused. DOC also has operational experience with controlling heather on the south side of Mt Ruapehu. Long term control or suppression of heather will likely only be possible if a larger (defendable) area of land is managed in partnership with DOC.

9.4 Summer trail development

The use of the Ski Area for summer walking is currently having minimal impact on vegetation and soils, except for some localised small areas. Walking trails should however be adequately sign posted and marked more effectively so that walkers are focused more strongly to a set path. High use areas should be monitored and if excessive damage is occurring e.g. Meads Wall, action undertaken to promptly reduce this impact, or create a hard surface trail.

10. Conclusions

The vegetation and natural character of the Whakapapa Ski Area is highly natural outside of the development foot print. RAL's management of the Whakapapa Ski Area is highly cognisant of the environment and its vulnerability to impacts. Guided by the Tongariro National Park Management Plan's policies, RAL's management practices avoid or mitigate most environmental impacts while operating the Ski Area on Mt. Ruapehu. RAL's management seeks to be adaptive and constantly improve how the Ski Area is operated and recommendations suggested in this report will further improve this. I am therefore of the opinion that the current high condition of the majority of the Whakapapa Ski Area is directly attributed to the combination of good planning and a conscientious operator. Assuming that future management and development is undertaken in a similar fashion, in general environmental impacts are likely to be minor and acceptable within the parameters set by the Tongariro National Park Management Plan.

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Appendix 1: Plant species recorded at Whakapapa Ski Area

Species name	Common name	Altitude zone		
		1500m – 1600m	1600m – 1840m	1840m – 2100m
Acaena sp.	bidibid	✓		
**Agrostis stolonifera*	creeping bent	✓		
Anaphalioides bellidioides	ever-lasting daisy	✓	✓	
Anisotome aromatica	mountain carrot	✓	✓	✓
**Aquilegia* sp.	granny bonnet	✓		
Brachyglottis bidwillii		✓	✓	
**Calluna vulgaris*	heather	✓		
**Cardamine hirsuta*	landcress	✓		
Celmisia glandulosa var. *glandulosa*	mountain daisy	✓		
Celmisia incana	mountain daisy	✓	✓	
C. spectabilis	mountain daisy	✓	✓	
**Cerastium fontanum*	Moused-eared chickweed	✓		
Chionochloa pallens	Snow tussock	✓		
C. rubra	Red tussock	✓		
Coprosma depressa		✓		
Coprosma perpusilla		✓	✓	
Dracophyllum recurvum	curved leaved neinei	✓	✓	
Epacris alpina		✓		
**Epilobium ciliatum*	willow herb	✓		
E. glabbelum		✓	✓	
Epilobium pernitens		✓	✓	
Euphrasia cunneata	Eye bright	✓	✓	
Forstera bidwillii				
Gaultheria colensoi	snow berry	✓	✓	✓
Gentianella bellidifolia	gentian	✓	✓	
Hebe tetragonia	Whipcord hebe	✓	✓	
Hierochloe recurvata	Mountain holy grass	✓		
**Lotus pedunculatus*	lotus	✓		
**Heiracium pilosella*	Mouse-eared hawkweed	✓	✓	
* *Holcus lanatus*	Yorkshire fog	✓		
**Hypericum perforatum*	St.Johns wort	✓		
Kelleria dieffenbachii	native thyme	✓	✓	
Lepidothamnus laxifolius	pygmy pine	✓		
**Linium catharicum*	purging flax	✓		
**Lolium perenne*	rye grass	✓		
Luzula banksiana var. *migrata*				
Luzula colensoi		✓	✓	✓
Myrsine nummularia		✓		
Neopaxia calycina		✓	✓	
Oreobolus pectinatus	comb sedge	✓	✓	

Ourisia vulcanica		✓	✓	
Prasophyllum colensoi	Leek orchid	✓		
Pimelea microphylla		✓		
**Plantago lanceolata*	narrow leafed plantain	✓		
**P. major*	large-leafed plantain	✓		
Parahebe hookeriana		✓		
Parahebe spathulata		✓	✓	
Pentacondra pumila		✓		
Podocarpus nivalis	Snow totara	✓		
Poa colensoi	blue tussock	✓	✓	✓
**Ranunculus repens*	buttercup	✓		
Raoulia albosericea	silver raoulia	✓		
Raoulia grandiflora		✓		
Rhacomitrium lanuglosum	woolly moss	✓		
**Rumex acetosella*	sheep sorrel	✓		
Rytidosperma nudum		✓		
Rytidosperma setifolium	bristle tussock	✓	✓	✓
**Sagina procumbens*		✓	✓	
**Taraxicum officinale*	dandelion	✓		
Thelymitra sp.		✓		
Wahlenbergia pygmaea	harebell	✓		

Appendix 5

Economic Reports

TRI New Zealand

New Zealand Tourism Research Institute

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MOUNT RUAPEHU SKI-FIELDS:

AN ECONOMIC IMPACT STUDY

A Study for the Ski Areas Association of New Zealand

March 2002

Mt RUAPEHU
WHAKAPAPA & TUROA
NEW ZEALAND

SAANZ
Ski Areas Association (New Zealand)

Auckland University
of Technology

TABLE OF CONTENTS

EXECUTIVE SUMMARY

- The focus of this report is on the economic impacts of the Mt Ruapehu ski areas on the economy of Ohakune and the surrounding region. We review visitor characteristics (including expenditure), the income and employment generation capabilities of the ski area and local businesses, and visitor and local business attitudes towards the ski area.

- The research phase of the project was conducted between June and September 2001 and involved: a visitor survey conducted on the mountain (n=500 Turoa, n=500 Whakapapa); a survey of visitors using accommodation in Ohakune (n=80); a survey of employees of Ruapehu Alpine Lifts (n=75); an expenditure diary (n=25); and a local business survey (n=16).

- The report outlines the findings of the surveys and then calculates the overall results to reflect total visitor numbers for the whole season.

- The average daily expenditure, both on-field and off-field, by each visitor to the ski areas is $119.34 (this is the average for both fields).

- Our research reveals that for every dollar spent by a visitor to the mountain, 42 cents of income is generated for the local economy. In other words, for every million dollars of tourist expenditure $420,000 of local income is created.

- For every $10,000 spent by visitors 0.47 jobs (seasonal and full time) are created. In other words for every million dollars of tourist expenditure 47 local jobs are created.

- The average visitor daily spend multiplied by the number of skier days (382,000) generates a total expenditure of $45.58 million. The total expenditure multiplied by the local income multiplier (0.42) provides the total in local income generated ($19.14 million).

- The total expenditure multiplied by the local employment multiplier (0.47) equals the total number of jobs generated (2142).

- Visitors to Mt Ruapehu also have an important downstream impact on the regional and national economy. The Expenditure Diary indicates that 49% of expenditure occurs pre and post visit.

- Ohakune and National Park businesses feel strongly that the ski areas play a vital role in the local economy and welcome the business that Mt Ruapehu brings to the region. As such, Mt Ruapehu ski areas are an important component of the regional economy.

- The economic linkages between the ski area and the local communities are significant but are able to be strengthened. It is particularly essential that coordination between off and on mountain business be strengthened as much as possible.

INTRODUCTION

This report represents the latest research collaboration between the Ski Areas Association of New Zealand (SAANZ) and the New Zealand Tourism Research Institute (NZTRI).

The report is designed to improve our understanding of the local economic impact of the Mt Ruapehu ski areas. We also estimate the broader (North Island) impact of the ski areas. In achieving these objectives we:

- Outline visitor characteristics to Turoa and Whakapapa ski fields
- Analyse income and employment generation capabilities of the ski fields
- Generate multiplier estimates
- Summarise tourist and local business attitudes toward the ski areas

The report introduces the case study and is followed by an analysis of visitor characteristics to both Whakakpapa and Turoa ski fields. The economic impacts of visitors to the ski fields are provided by an average daily visitor spend and then expanded through a multiplier process. Results of the Expenditure Diary are evaluated and then additional comments provided by the business community and visitors themselves are presented. Finally, some conclusions are drawn from the analysis and followed by the actual survey instruments employed.

The authors would like to acknowledge Miles Davidson (SAANZ) for his support in completing the project. Logistical support provided by RAL staff is acknowledged, in particular, Debbie Thomson. The researchers themselves who dedicated skiing time to survey work is also acknowledged and appreciated. The report was written by Hamish Bremner, Simon Milne and Sarah Nelson. Research Assistance was provided by Vanessa Clark, Annette Franklin, Pascal Languillon, Charlotte Orr, Nicholas Catherall and Celia Schollum.

THE CASE STUDY

Whakapapa and Turoa ski fields are located on Mt Ruapehu, in the heart of the Tongariro National Park, in the centre of the North Island of New Zealand.

Centred on a belt of active volcanism, this national park consists of approximately 75,000 hectares of land dominated by three volcanoes: Ruapehu (2792m), Ngauruhoe (2290m), and Tongariro (1968m).

The ski fields are located on the Northwest (Whakapapa) and Southwest (Turoa) sides of Mt Ruapehu. The volcano is still very much active with the last eruption occurring in September 1996.

Tongariro National Park was gazetted in 1894 and is the oldest national park in New Zealand. In 1993 Tongariro became a World Heritage Site due to the exceptional value of its natural and cultural landscapes. The Department of Conservation is responsible for the management of the national park and allows concessionaires to operate commercial activities within the designated park.

In 2000, Ruapehu Alpine Lifts Ltd (RAL) received permission from the Commerce Commission to purchase the Turoa ski field from Turoa Ski Resort Limited (TSRL). The Turoa and Whakapapa ski fields were merged under the one management entity.

Surrounding this alpine environment are a number of rural towns servicing the backbone industries of the District's economy, including farming, forestry, horticulture and tourism. These industries support the main employment and development opportunities within the rural towns which provide the various amenity facilities which underpin the operation of business throughout the District. The towns most directly affected by ski visitors to the mountain are Ohakune, National Park and Whakapapa Village.

Local governance is undertaken by the Ruapehu District Council which has authority over a diverse region of some 6,700 square kilometres with 16,740 permanent residents.

Tourism expenditure has increased in the June 2001 Quarter by 4% with the most significant growth in the International Visitor Spend (up 23%).

METHODOLOGY

The research phase of this project was conducted between July and September 2001 and involved: A Mountain Survey of visitors to Mt Ruapehu, including Whakapapa and Turoa Ski Areas (N=500 responses for each Ski Area totalling 1,000 responses); A Survey of visitors using Ohakune Accommodation (N=80); an Expenditure Diary of frequent Mt Ruapehu Ski Area users (N=25); an Employee Survey (N=75); and a local Business Survey (16 businesses including the ski area).

Where a completed survey represented the expenditure of more than one person they were included in the economic analysis. Thus the sample size for expenditure analysis of the Mountain Surveys increased to 1,930; the Accommodation Monitor to 254; the Employee Survey to 105; and the Expenditure Diary to 54 respectively. These samples are significant and are large enough to provide a realistic picture of the economic impact of Mt Ruapehu to the surrounding local and regional economy.

The Research took place within the following time frame in 2001:

June – July:	Development of survey instruments, logistical planning
July – September:	Piloting and conducting research
October – December:	Analysis and Report writing

The Mountain Survey, conducted over 8 weeks, took place in the two main food outlets and rest areas of both the Whakapapa and Turoa Ski Fields (Whakapapa lower mountain café: Lorenze Bar and Café, and upper mountain café: The Knoll Ridge Café; and Turoa lower mountain café and upper mountain café: The Giant Café). The surveys were undertaken between 10am and 3pm. A brief explanation of the reasons for the survey and how to fill out the form were given to subjects, who were then left alone to complete the survey. The forms were then collected by the researchers and checked for accuracy.

The Accommodation Monitor Survey was similar in composition to the ski area instrument, however questions pertaining to expenditure on the mountain were removed, focusing more on in-town expenditure. The Monitor was distributed to seven accommodation properties ranging from backpackers to up-market hotels. Completed surveys were collected weekly.

The Expenditure Diary was sent out to a range of Mt Ruapehu Ski Area Users located on the Ski Area's Database. A sample of 305 was selected randomly, and electronically sent an introductory letter explaining the purpose of the research and their possible involvement. The questions were formatted into seven sections: General Information (regarding the respondents demographic

characteristics, where staying in Ruapehu, and the frequency of their ski trips); Pre-departure Costs; To Ruapehu Costs; Costs at Ruapehu; Home from Ruapehu Costs; Back Home Costs; and Extra Costs. This questionnaire was designed to ascertain how much money is actually spent by Mt Ruapehu ski area users, from the time they left home for their ski trip, until the time they arrived home – and all the expenses incurred in between.

The Employee survey was designed to generate information on the expenditure patterns of Mt Ruapehu ski area workers. This information helps us to understand how wages paid by the Ski Field flow back into the local economy. 75 Employee Surveys were returned out of the 329 distributed giving a response rate of 22.8%.

As an incentive to complete the questionnaires the chance to win a SAANZ sponsored prize was offered to all participants.

The Business Survey relied on semi-structured interviews with the managers/owners of Mt Ruapehu businesses. 16 Business Interviews were conducted with local businesses (primarily in Ohakune) both directly and indirectly involved in tourism in the region. An interview was also conducted with the ski area manager. Business interviews took place between the 6th of August and the 19th of September 2001.

STRENGTHS AND WEAKNESSES OF THE SAMPLE

As with any form of survey research there are factors that can influence the validity of the information gathered and presented. The first and most important of these is the size of the samples being collected. Our samples for the Mountain Survey returned 1000 responses. These samples are statistically significant and are large enough to provide a realistic picture of the economic impact of Mt Ruapehu ski areas on the local and regional economy.

Despite the large sample size, there are aspects of the research that may create some bias in the data:

- As a result of conducting the Mountain Surveys in the Mountain Cafes, there is likely to be some over-representation of food and beverage related expenditure on the mountain. This situation requires the food and beverage figures to be weighted against data obtained by Ruapehu Alpine Lifts.

- Throughout the Mountain Survey we avoided 'repeat samples' as we did not want to bother visitors to the ski area more than once. As a result long-term visitors may have been under-represented.

- Where possible we avoided surveying individuals under the age of 15 years, as they would normally be part of a group that included some adult

input. As a result, school-groups and teenagers travelling alone or with peers may be under-represented.

- The Expenditure Diary, in itself, is not considered statistically significant however the responses read in conjunction with the other data provide realistic and useful information for the regional expenditure of visitors to the ski areas.

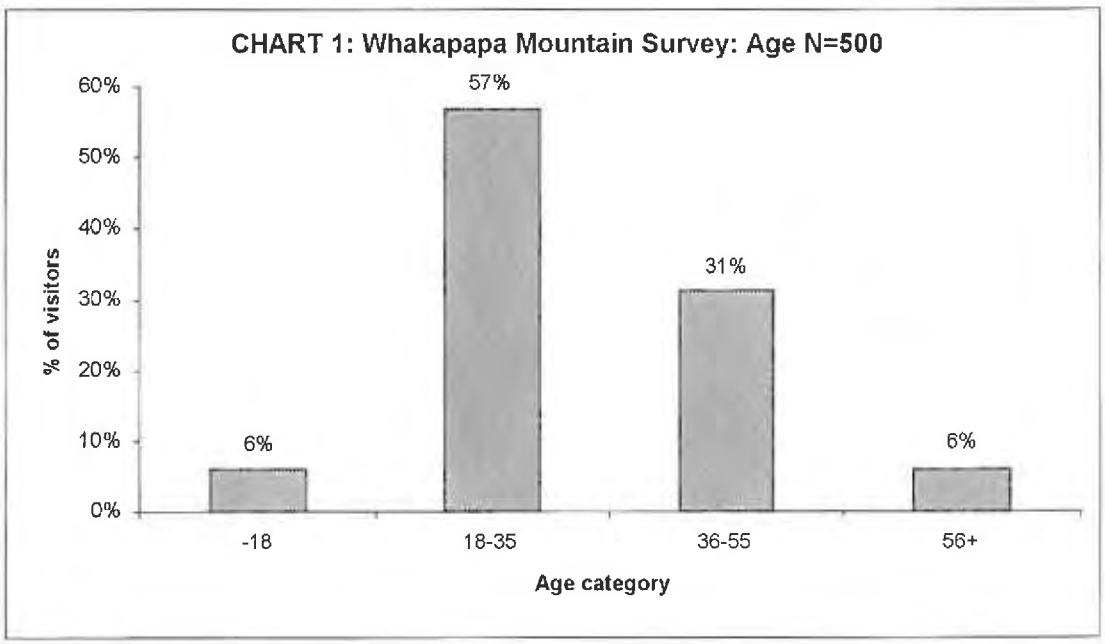
- The surveys were conducted between July and September of 2001. These dates did not include a school holiday period resulting in an under-representation of family groups.

- Statistical 'outriders' have been removed from the data set. Frivolous responses, obvious errors, and inflated expenditure estimates by respondents were isolated and excluded from the analysis.

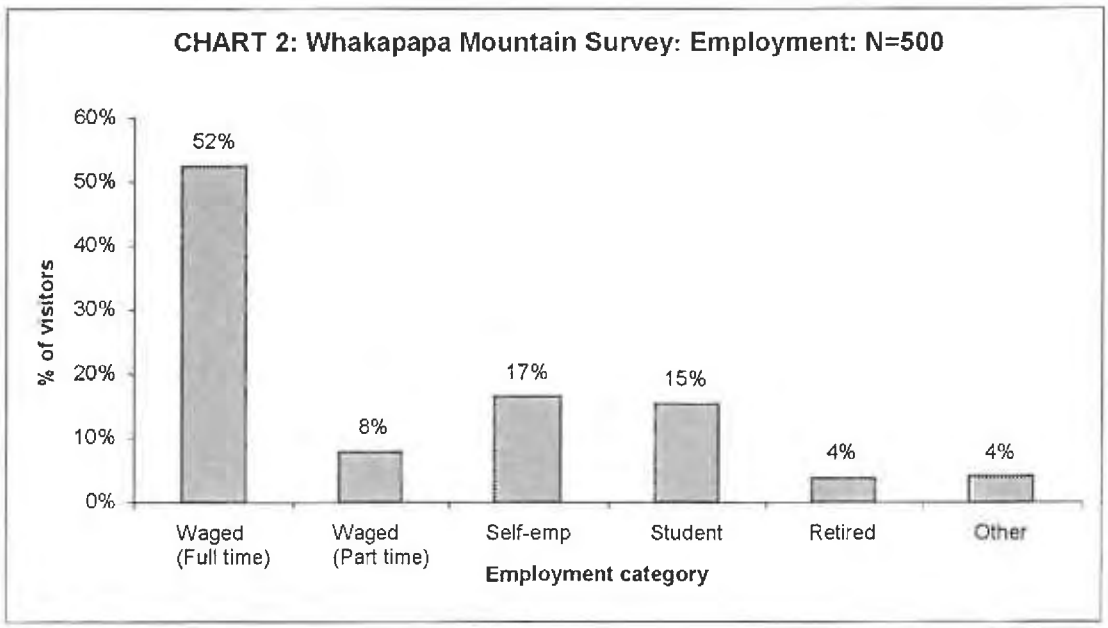
WHAKAPAPA MOUNTAIN SURVEY

WHAKAPAPA VISITOR DEMOGRAPHICS

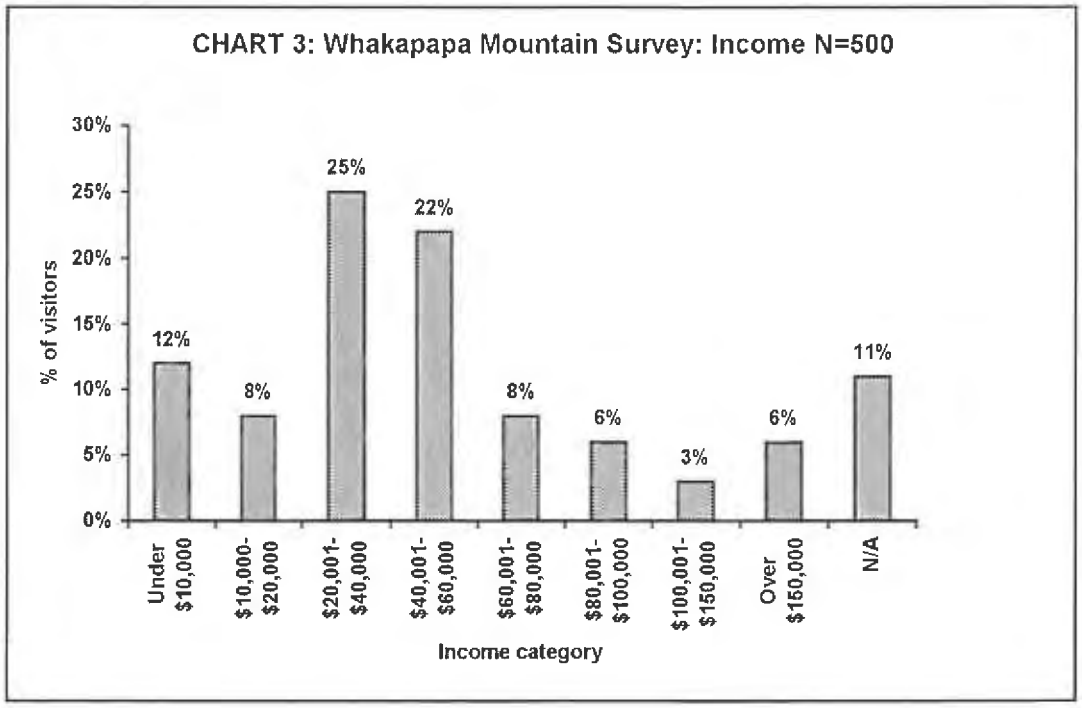
* 56% of all visitors surveyed were Male while 44% were Female



- The highest number of visitors were in the 18-35 age group (57%)
- The -18 and 56+ age groups accounted for the smallest number of visitors (both 6%)

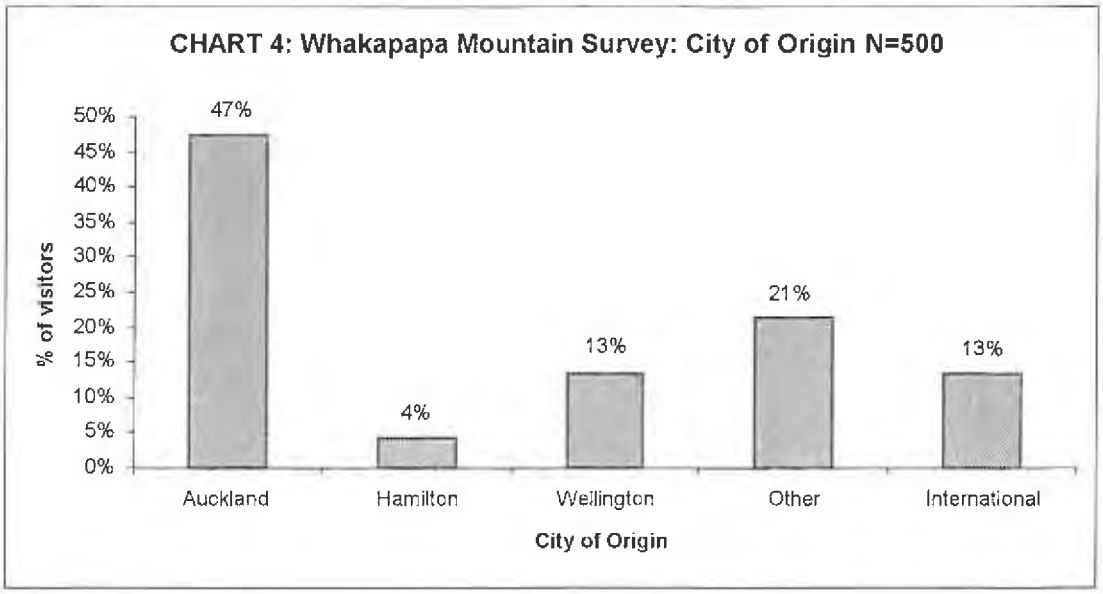


- Over half of all visitors are waged (full-time) employees (52%)
- Self-employed was the second highest employment category at 17%, closely followed by student at 15%



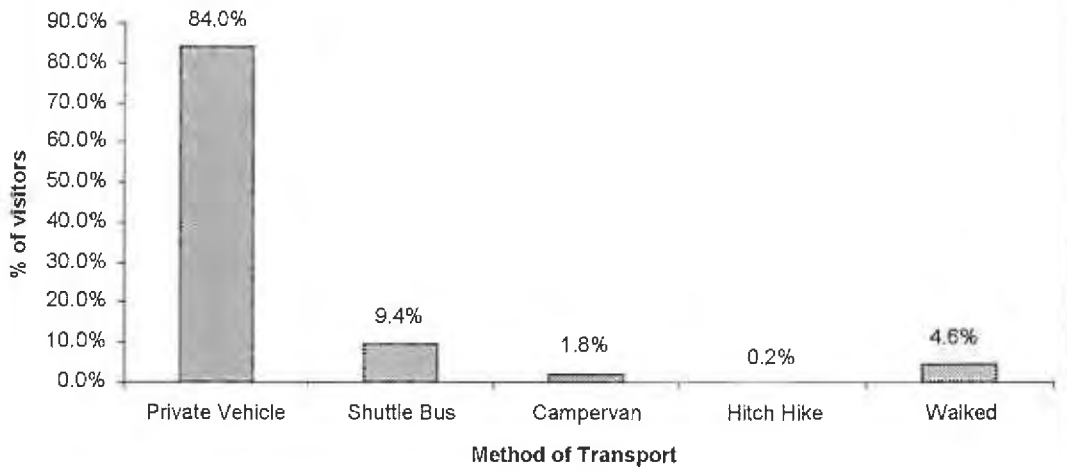
- 25% of visitors have an individual income between $20,000 and $40,000
- 22% of visitors have an individual income between $40,000 and $60,000

WHAKAPAPA VISITOR CHARACTERISTICS



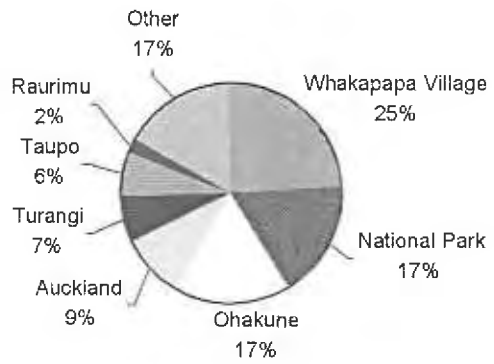
- Nearly half of all visitors to Whakapapa surveyed are from Auckland (47%)
- 13% of all visitors surveyed are from Wellington

CHART 5: Whakapapa Mountain Survey: Method of Transport N=500

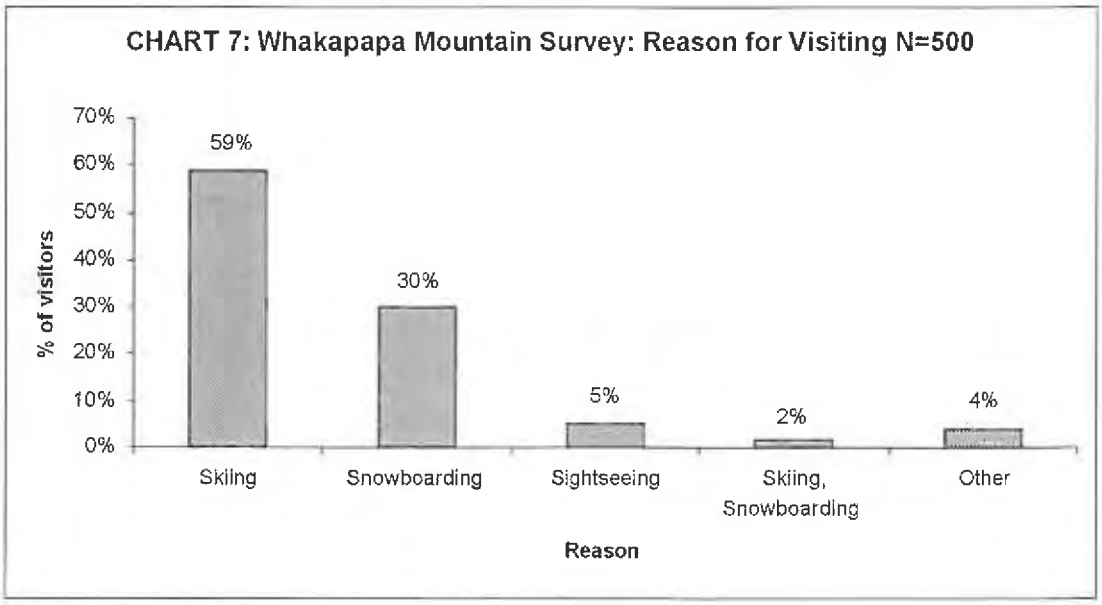


- 84% of all visitors travel to Whakapapa Ski Area by private vehicle
- Shuttle Bus was the next highest transport category (9.4%)

CHART 6: Whakapapa Mountain Survey: Visitor Point of Origin on Day Surveyed N=500

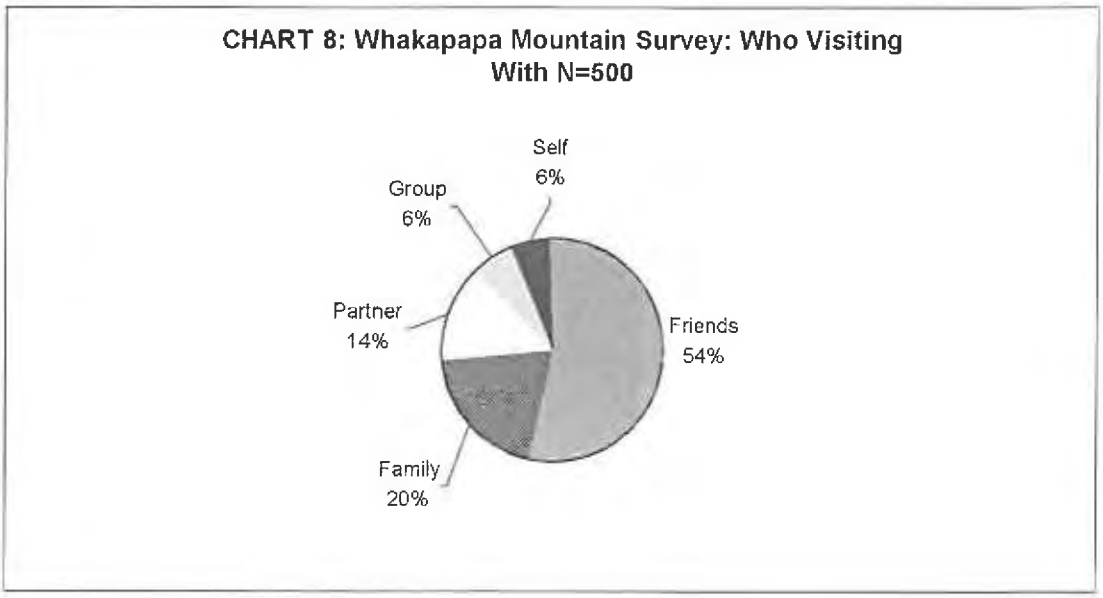


- The highest number of visitors came from Whakapapa Village (25%) on the day surveyed
- National Park and Ohakune were the next two visitor-generating areas, both accounting for 17% of all visitors surveyed



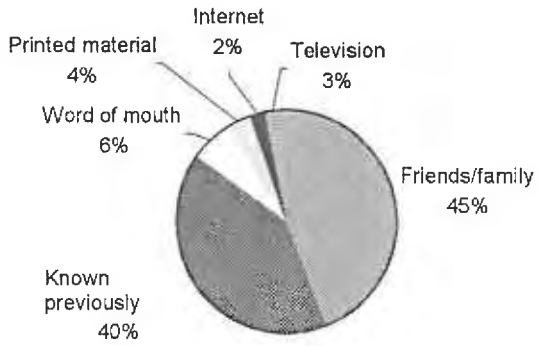
- The majority of visitors to Whakapapa surveyed were there to ski (59%)
- Snowboarding accounted for 30% of the reason to visit
- Sightseeing constituted 5% of all visitors surveyed

* 13% of all visitors surveyed indicated they were travelling as part of a packaged tour while 87% were not



- 54% of all visitors visited with friends, 20% with family
- Partner's accounted for 14% of all travelling companions, while the smallest number of visitors travelled in a group or by themselves (both 6%)

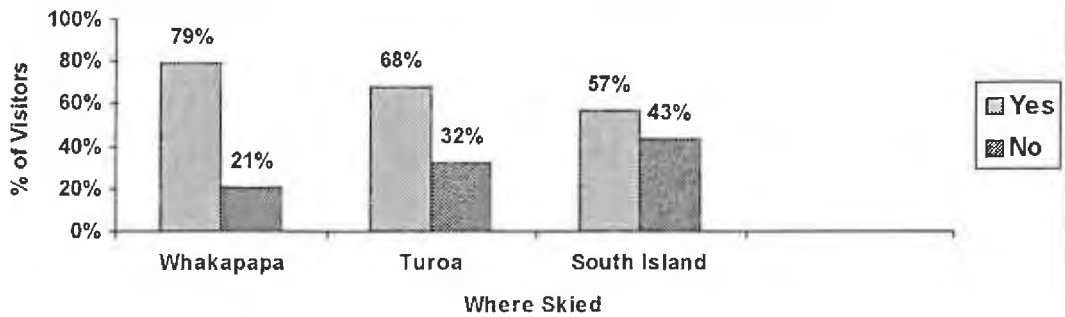
CHART 9: Whakapapa Mountain Survey: Pre-visit information sources N=500



- More people found out about the Whakapapa Ski Area from Friends/family (45%) than any other source
- 40% of all visitors surveyed have known previously about the Ski Area, and 6% found information out through Word of Mouth sources
- Printed material rated at 4%, with the Internet rating the lowest at 2%

* 88% of all visitors surveyed have access to the Internet while 12% do not

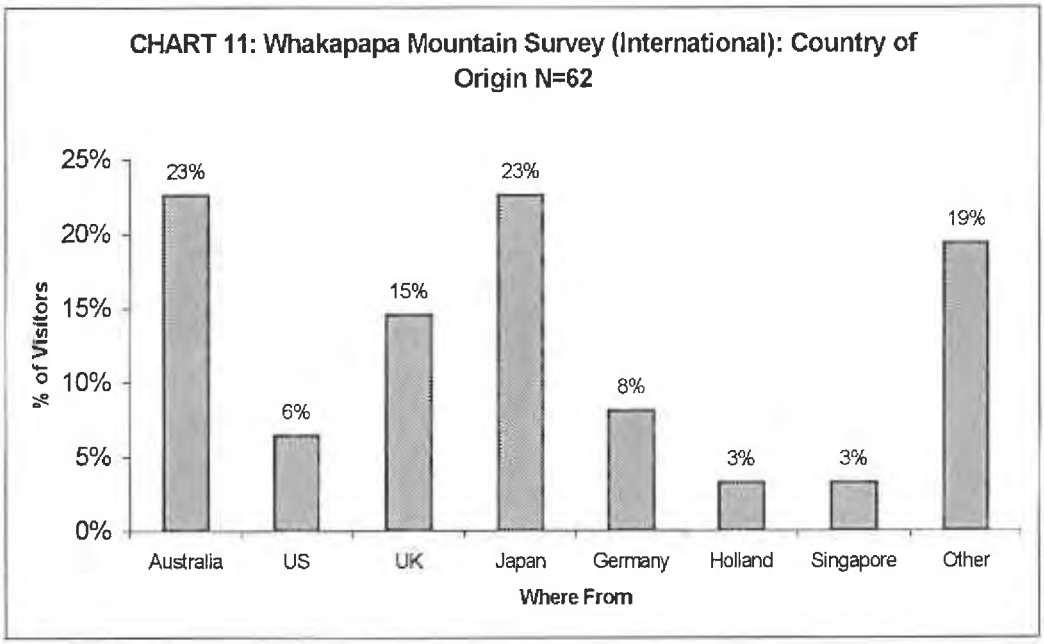
CHART 10: Whakapapa Mountain Survey: Previous Ski Visits N=500



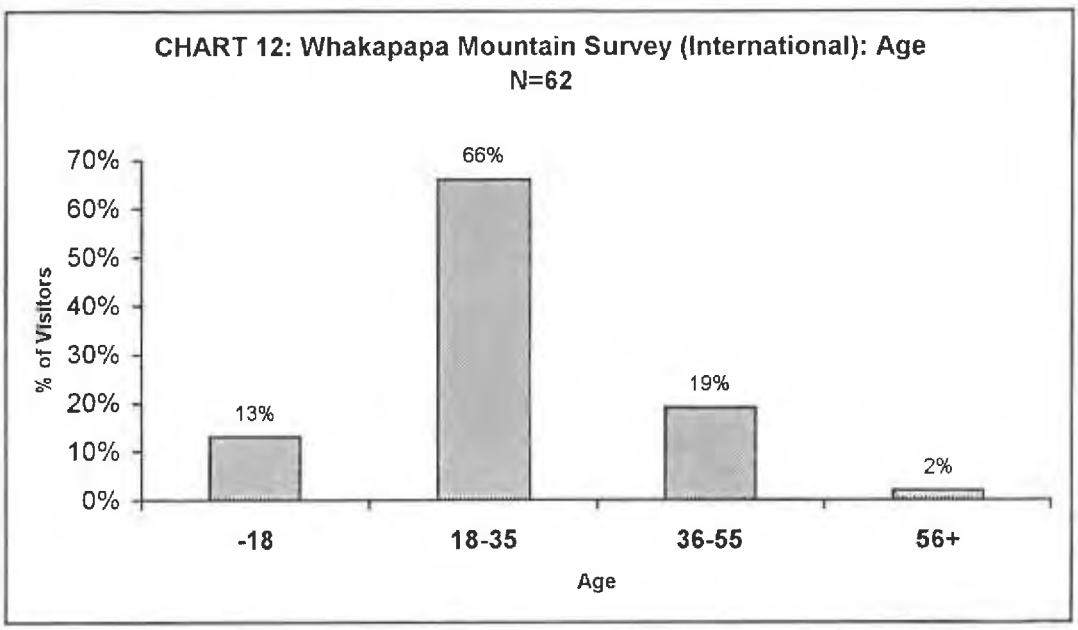
- 79% of respondents have skied/boarded Whakapapa previously
- 68% of respondents have skied/boarded Turoa previously
- 57% of all surveyed have visited the South Island to ski/board

WHAKAPAPA MOUNTAIN SURVEY: INTERNATIONAL VISITORS

* 58% of all International visitors surveyed were Male while 42% were Female

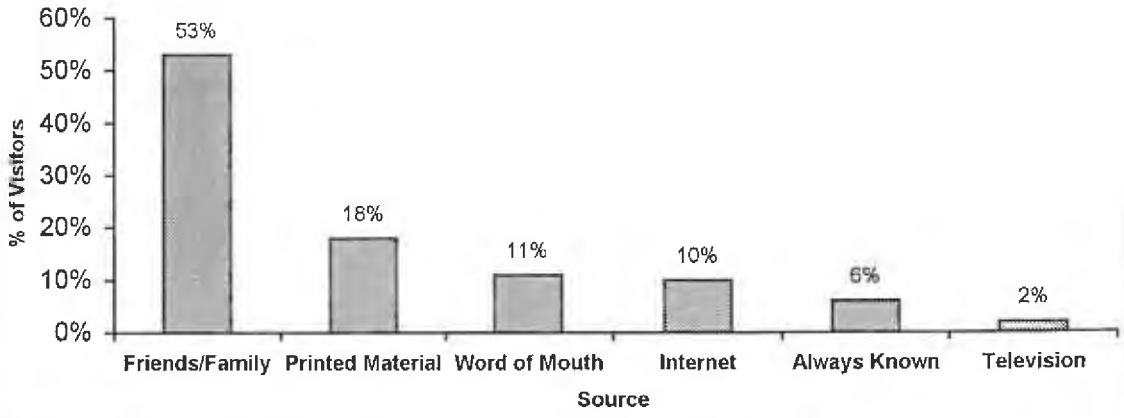


- Australia (23%) and Japan (23%) accounted for the majority of International visitors to Whakapapa
- The United Kingdom was the next largest market at 15%



- The majority of international visitors are between 18 and 35 (66%)
- The 56+ age group was the least significant at 2%

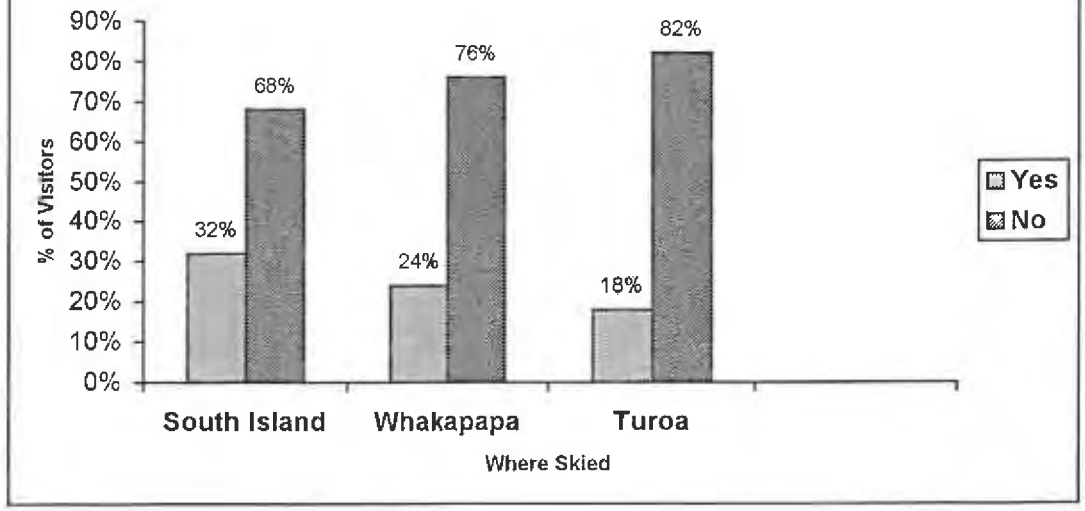
CHART 13: Whakapapa Mountain Survey (International): Sources of Information N=62



- 53% of International visitors relied on Friends and Family for their source of information
- The Internet was cited by 10% of all international visitors as a source of information

* 84% of all International visitors surveyed have access to the Internet
* 50% of all International visitors surveyed had pre-booked their ski packages

CHART 14: Whakapapa Mountain Survey (International): Previous Ski Visits N=62

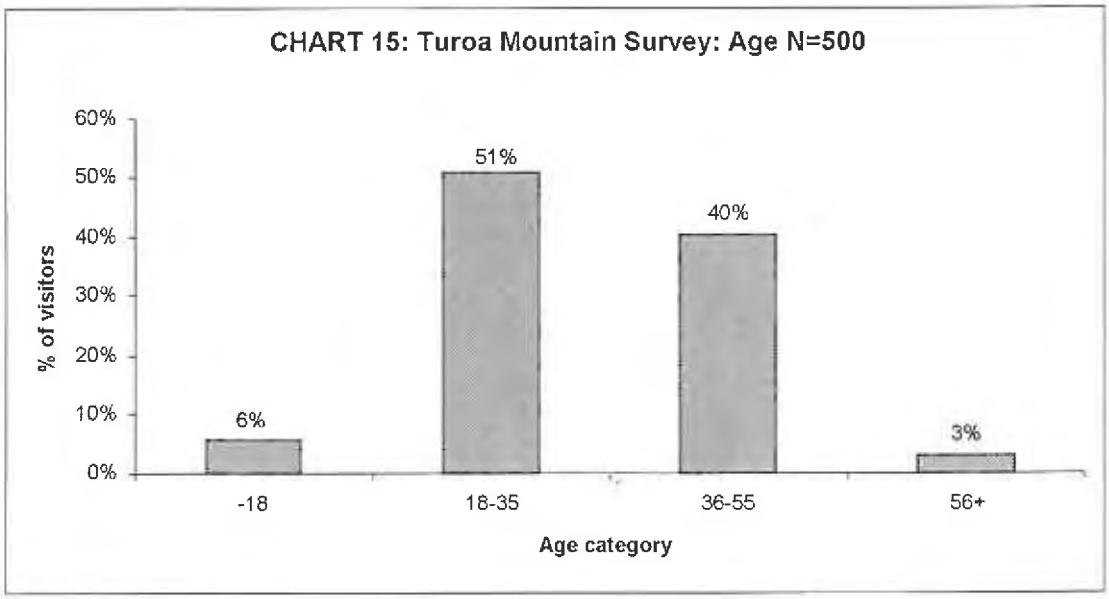


- 32% of International visitors have visited the South Island to ski/board
- 24% of International visitors have visited Whakapapa previously
- 18% of International visitors have visited Turoa previously

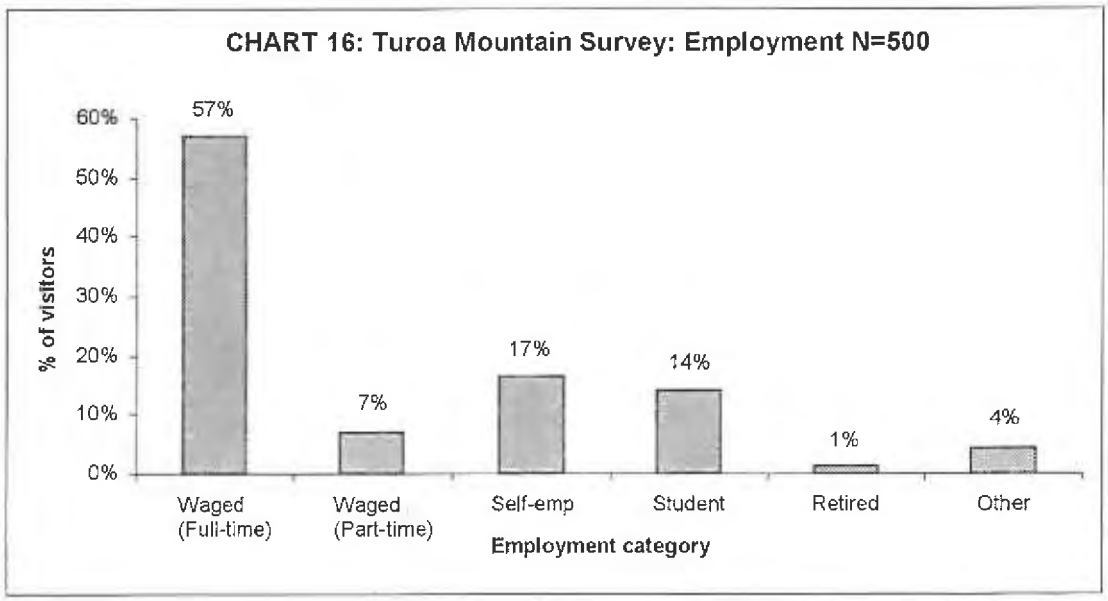
TUROA MOUNTAIN SURVEY

TUROA VISITOR DEMOGRAPHICS

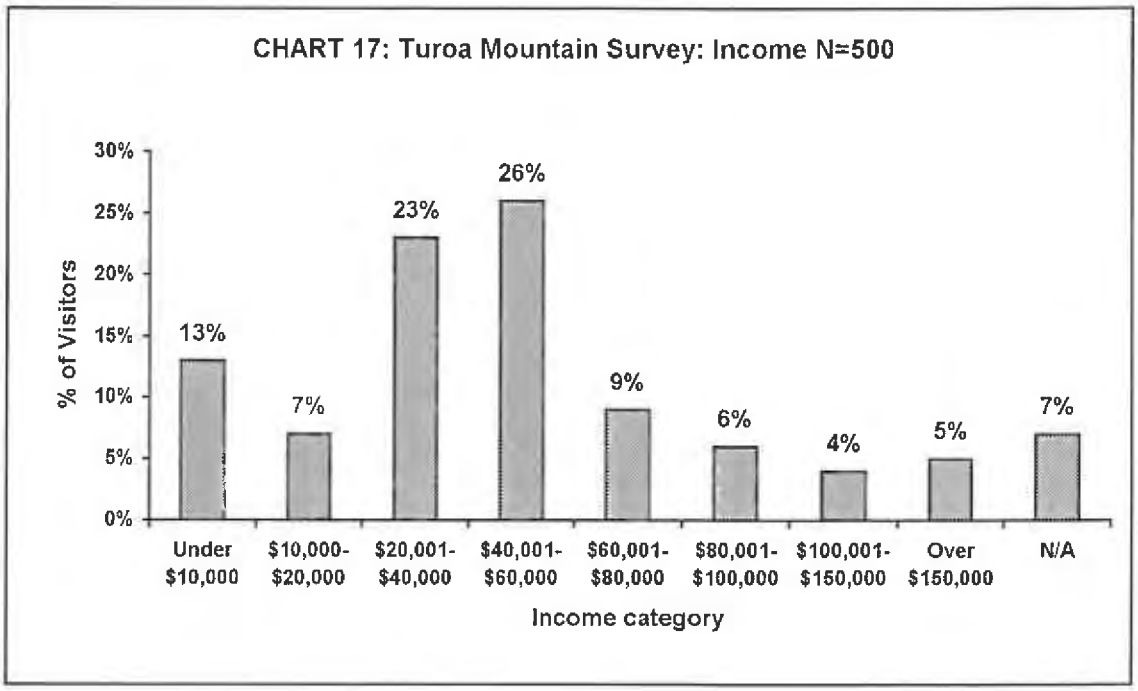
* 52% of all visitors surveyed were Female while 48% were Male



- The highest number of visitors were in the 18-35 age group (51%)
- The -18 and 56+ age groups accounted for the smallest number of visitors (both 6%)

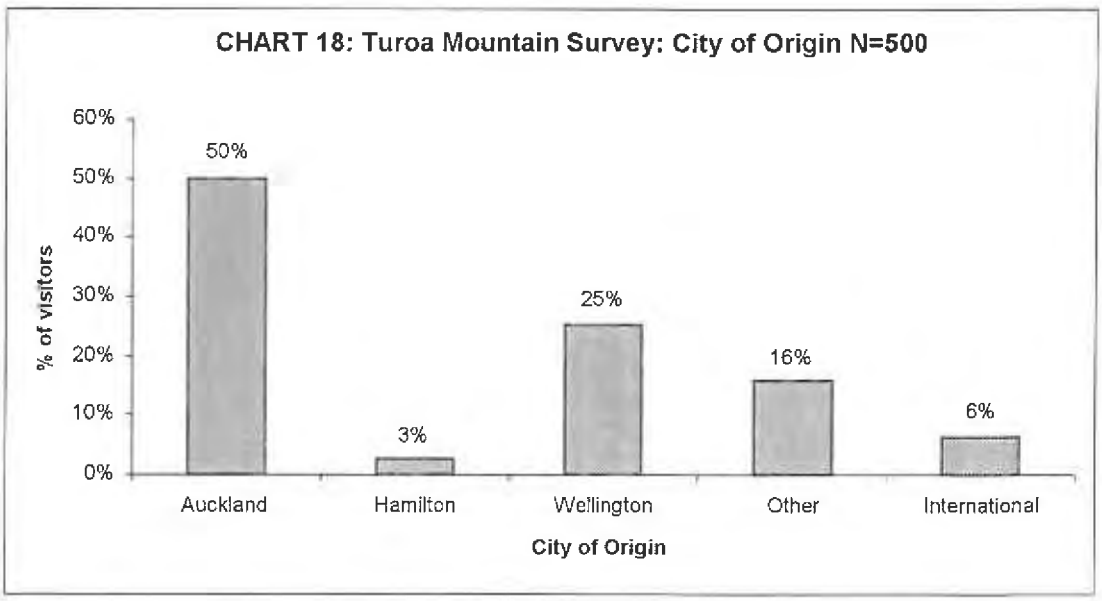


- Over half of all visitors are waged (full-time) employees (57%)
- Self-employed was the second highest employment category at 17%, closely followed by Student at 14%



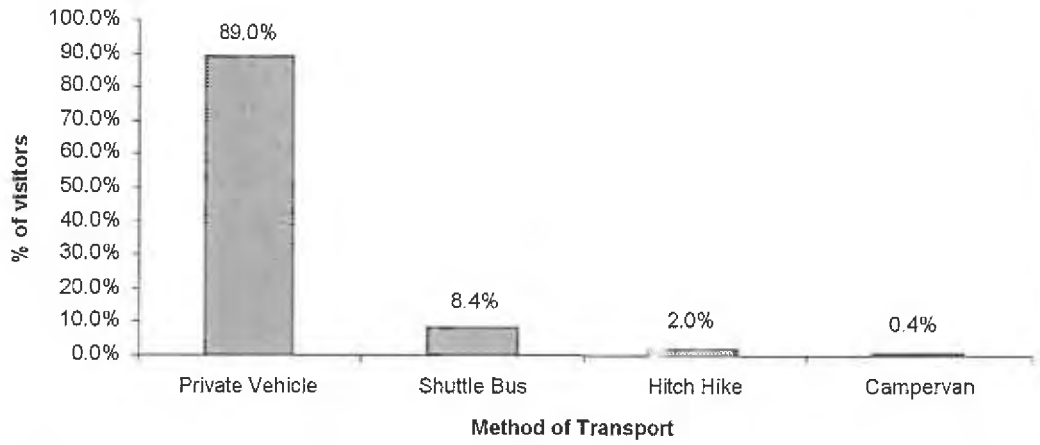
- 26% of visitors have an individual income between $40,000 and $60,000
- 23% of visitors have an individual income between $20,000 and $40,000
- 13% of visitors have an individual income under $10,000

TUROA VISITOR CHARACTERISTICS



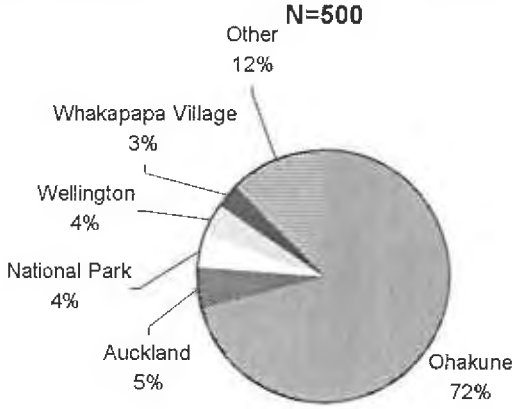
- Half of all visitors to Turoa surveyed are from Auckland (50%)
- 25% of all visitors surveyed are from Wellington
- 6% of all visitors surveyed are international

CHART 19: Turoa Mountain Survey: Method of Transport N=500

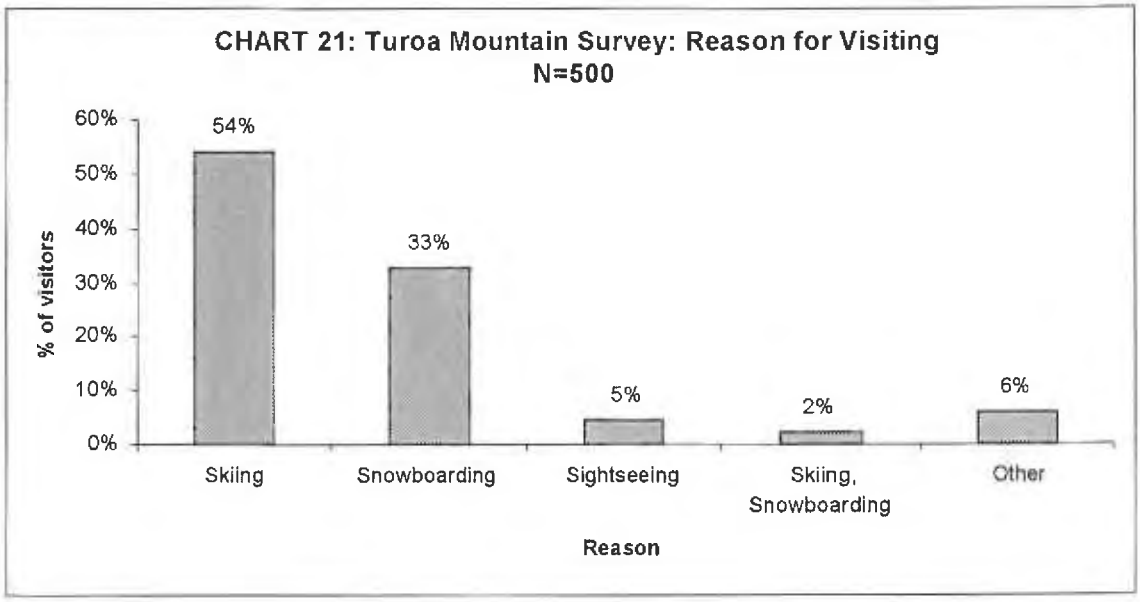


- 89% of all visitors travel to Whakapapa Ski Area by private vehicle
- Shuttle Bus was the next highest transport category (8.4%)

CHART 20: Turoa Mountain Survey: Visitor Point of Origin on Day Surveyed N=500

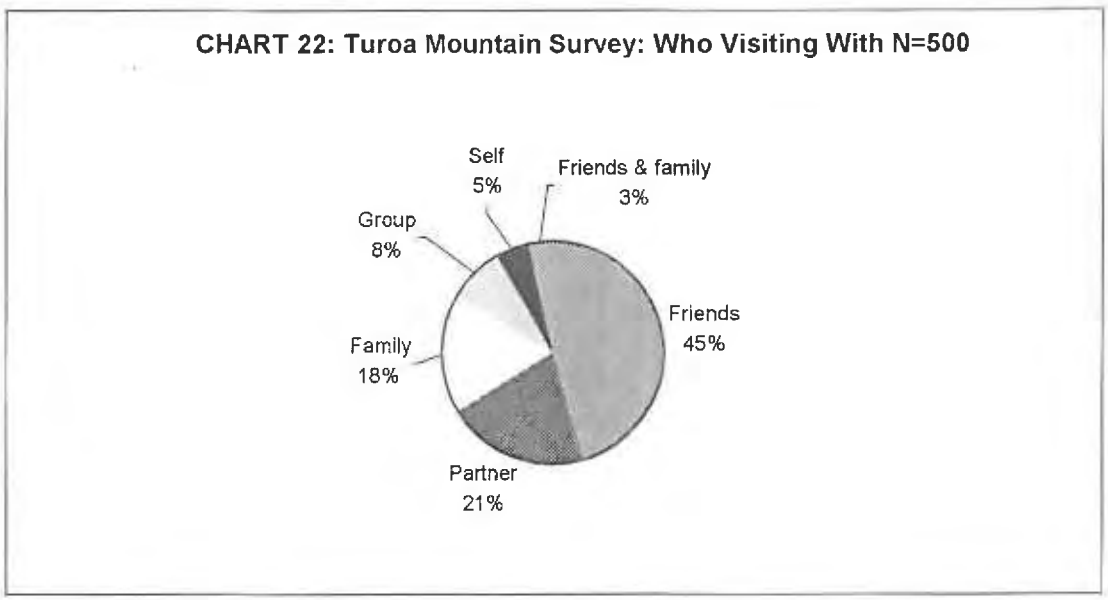


- The highest number of visitors came from Ohakune (72%) on the day surveyed
- Auckland is the next largest visitor-generating area, accounting for 5% of all visitors on the day of the survey, closely followed by Wellington and National Park (both 4%)



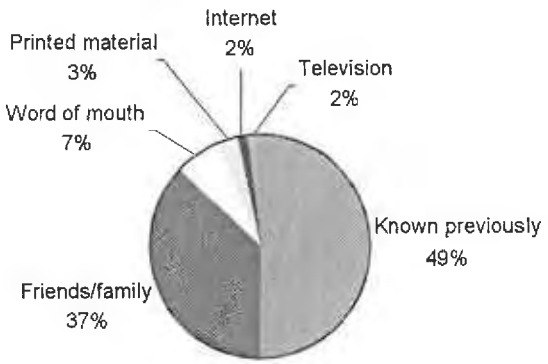
- A majority of all visitors to Turoa surveyed visited to ski (54%)
- Snowboarding was the next reason for visiting at 33%
- Sightseeing visitors constituted 5% of all visitors surveyed

* 3% of all visitors surveyed indicated they were travelling as part of a packaged tour while 97% were not



- 45% of all visitors visited with friends, 21% with their partner
- Family accounted for 18% of all travelling company, while the smallest number of visitors travelled with both friends and family (3%)
- 8% of all visitors surveyed visited in a group

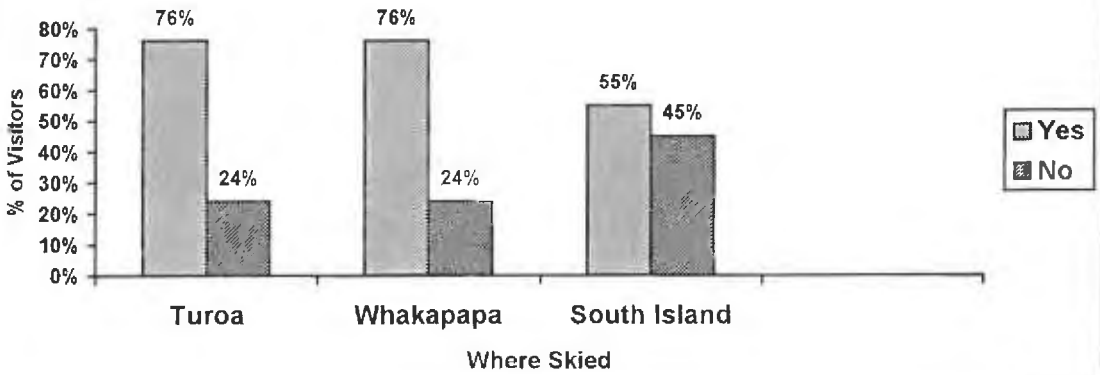
CHART 23: Turoa Mountain Survey: Pre-visit Information Sources N=500



- More people have known previously about the Turoa Ski Area (49%)
- 37% of all visitors surveyed found out about the Ski Area from Friends/family, and 7% found information out through Word of Mouth sources
- Printed material rated at 3%, with the Internet and Television both rating the lowest at 2%

* 93% of all visitors surveyed have access to the Internet while 7% do not

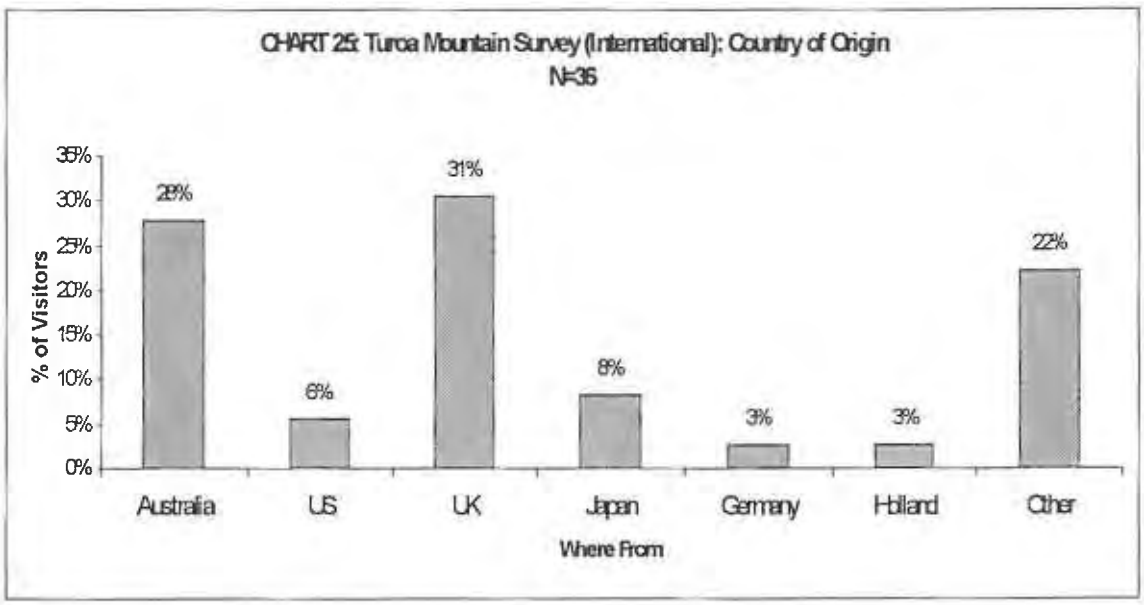
CHART 24: Turoa Mountain Survey: Previous Ski Visits N=500



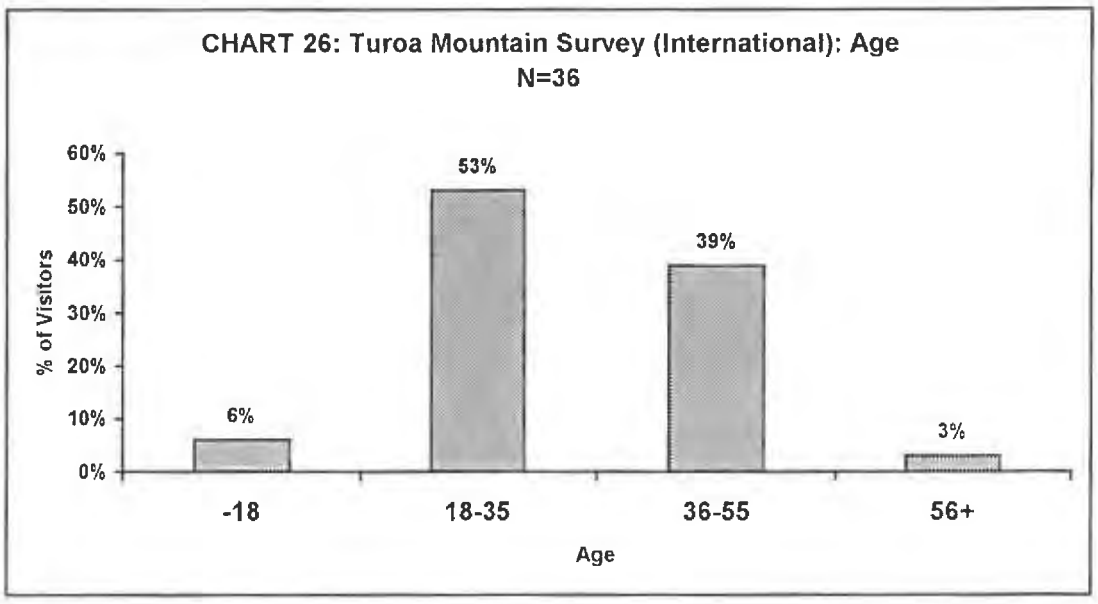
- 76% of respondents have previously visited both Whakapapa and Turoa on a ski visit
- 55% of respondents have previously visited the South Island on a ski visit

TUROA INTERATIONAL VISITORS

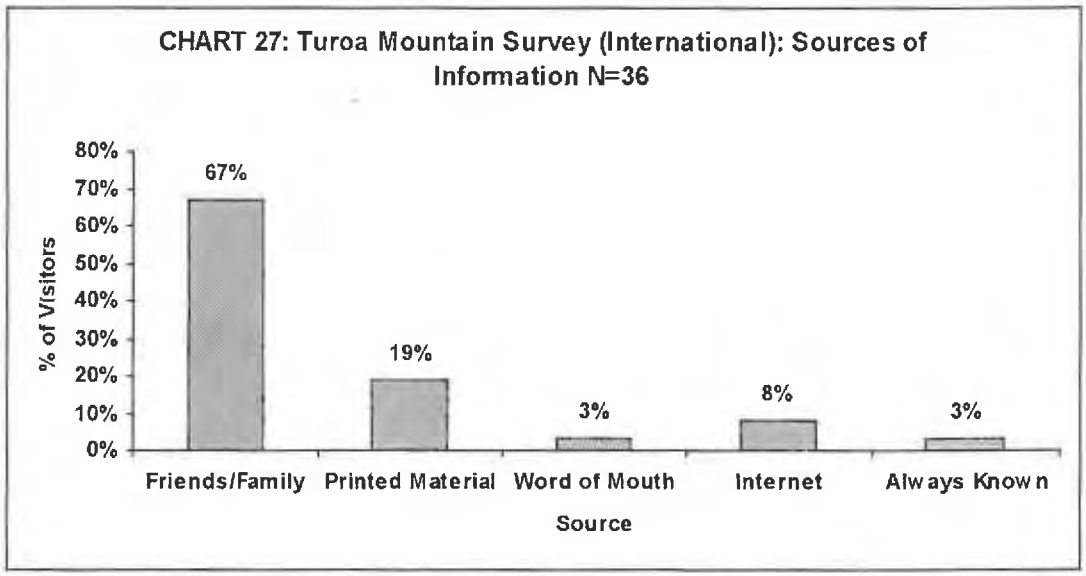
* 56% of all International visitors surveyed were Male while 44% were Female



- The United Kingdom accounted for 31% of International visitors to Turoa
- Australia is the next highest market at 28%



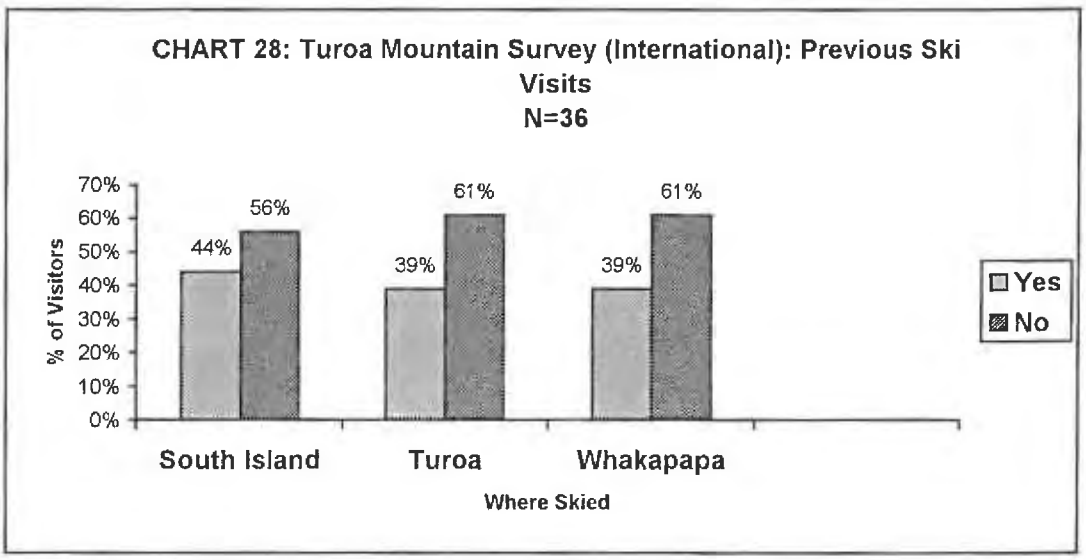
- The majority (66%) of International visitors to Whakapapa are in the 18-35 age bracket
- The least (2%) amount of International visitors are in the 56+ age bracket



- Friends and Family (67%) were the most often cited source of information
- The Internet accounted for 8% of responses

* 97% of all International visitors surveyed have access to the Internet while 3% do not

* 14% of all International visitors surveyed had pre-booked their ski packages



- 39% of International visitors to Turoa had previously skied at Turoa
- The same amount (39%) had previously been to Whakapapa
- 44% of International visitors to Turoa had previously been to the South Island to ski

ACCOMMODATION MONITOR

The Accommodation Monitor is a means of capturing further data regarding the expenditure patterns of people staying in the region. The monitor is not statistically significant (N=80) but does provide a means to compare/contrast the on-field data.

The majority of respondents (89%) reason for visiting the region during our survey was for skiing/snowboarding. However, the Accommodation Monitor was able to include people that were not in the region for snow sports and as such is a model that can be used for future research.

Responses for the Accommodation Monitor came from Ohakune and include visitors staying at motels, camp-grounds, lodges, and backpacker hostels.

Age:

- The highest number of respondents, were between the ages of 25 and 34 (26%)
- The second highest responding age group is 35-44 (25%)

Employment:

- Over half of all respondents are employed full-time (55%)
- Self-employed was the second highest employment category at 23%, followed by Student at 13%

Education:

- 36% of respondents had no more than school-level qualifications
- A high percentage of all respondents surveyed had Tertiary Certificates or Diplomas (30%)

Gender:

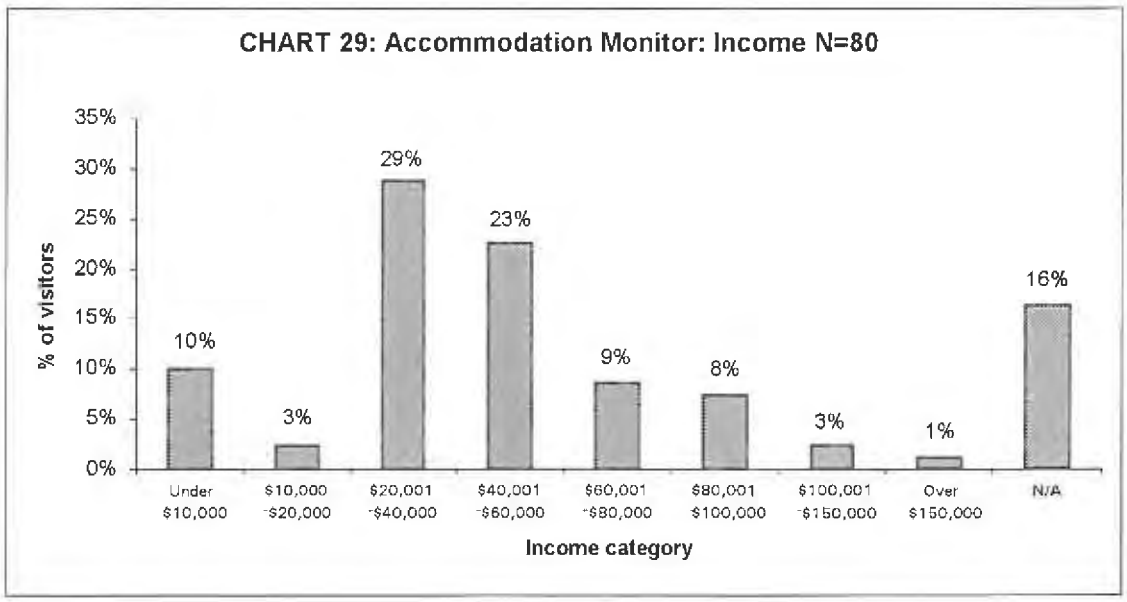
- 51% of respondents were Female while 49% were Male

Internet Access:

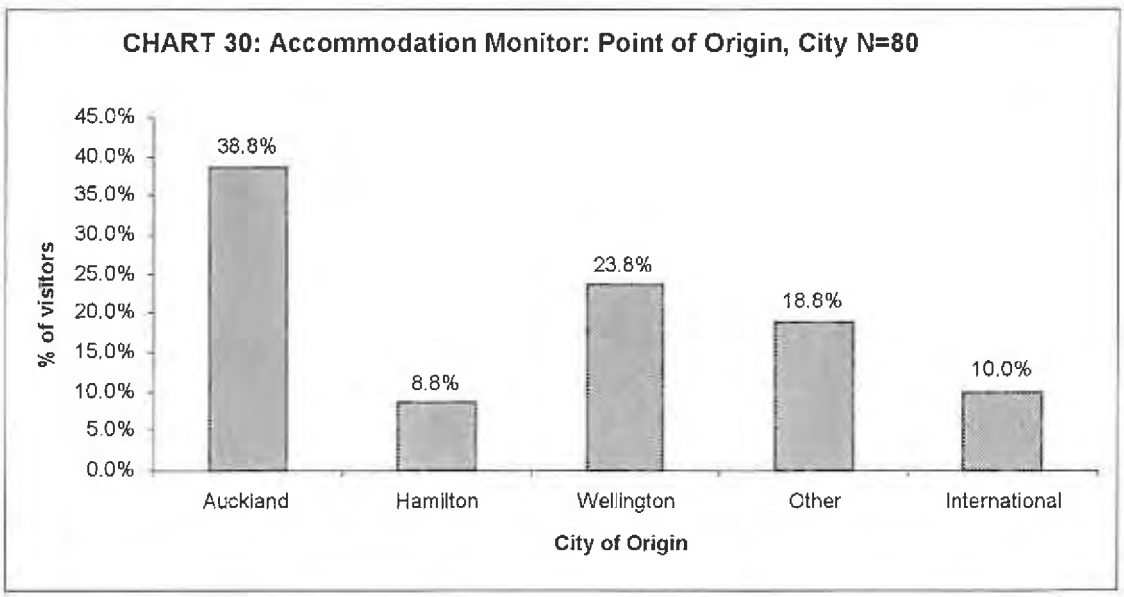
- 94% of respondents have access to the Internet whereas 6% do not

Pre-booked Accommodation:

- 78% of respondents had booked their accommodation prior to their arrival while 22% had not



- 29% of visitors had an individual income between $20,000 and $40,000
- 23% of visitors had an individual income between $40,000 and $60,000
- 16% did not state their income



- Auckland (38.8%) and Wellington (23.8%) were the urban areas which generated the most visitors
- Hamilton generated nearly 9% of all visitors
- 10% of all visitors surveyed came from international cities

EXPENDITURE ANALYSIS

WHAKAPAPA VISITORS

CHART 31: WHAKAPAPA VISITOR ON-FIELD EXPENDITURE PER DAY
N= 857#

Category	Ave spend/person	% of total
Ski Related Spend	$26.47	68.6%
F & B Related Spend	$7.50*	16.8%
Product Purchases	$8.30	11.1%
Miscellaneous Spend	$1.60	3.3%
Total	**$43.87**	**100%**

Respondents were asked how many people their estimates included (see method section)
* Weighting included to counter survey bias

- Ski-related expenditure is the category with the highest spend ($26.47)
- Over two-thirds of on-field expenditure is on ski-related product (68.6%)
- Food and Beverage expenditure was the next most significant category

CHART 32: WHAKAPAPA VISITOR OFF-FIELD EXPENDITURE PER DAY
N= 857

Category	Ave spend/person	% of total
Restaurants	$21.65	29.8%
Accommodation	$27.69	38.3%
Souvenirs	$4.16	5.7%
Groceries	$6.18	8.5%
Transfers	$2.97	4.1%
Miscellaneous	$9.88	13.6%
Total	**$72.55**	**100%**

- Each visitor to Whakapapa spent, on average, a total of $72.55 off the ski field while in the region
- Of the total, 38.3% ($27.69) was spent on accommodation, and 29.8% ($21.65) on restaurants.
- Groceries represented the third most important cost category

TUROA VISITORS

CHART 33: TUROA VISITOR ON-FIELD EXPENDITURE PATTERNS PER DAY N=1073#

Category	Ave spend/person	% of total
Ski Related Spend	$29.71	68.6%
F and B Related Spend	$7.00*	16.8%
Product Purchases	$6.02	11.1%
Miscellaneous Spend	$2.04	3.3%
Total	**$44.77**	**100%**

* Weighting included to counter survey bias.
# Respondents were asked how many people their estimates included

- The highest spend per day is Ski-related ($29.71)
- Over two thirds of expenditure on mountain is Ski-related (68.6%)
- Food and Beverage expenditure was the next most significant category

CHART 34: TUROA VISITOR OFF-FIELD EXPENDITURE PATTERNS PER DAY N=1073

Category	Ave spend/person	% of total
Restaurants	$23.25	30.0%
Accommodation	$27.24	35.1%
Souvenirs	$3.77	4.9%
Groceries	$9.98	12.9%
Transfers	$4.23	5.5%
Miscellaneous	$9.02	11.6%
Total	**$77.49**	**100%**

- On average each visitor to Turoa spent a total of $77.49 per day off the mountain
- Restaurants (30%) and Accommodation (35.1%) accounted for over half of all expenditure
- Miscellaneous accounted for 11.6% of all expenditure with fuel given as the most common expense

In order to conduct the economic impact study on the Ohakune/National Park economy we have created an 'average' spent figure for all Turoa/Whakapapa visitors.

CHART 35: Visitor Expenditure Patterns: Combined ski-fields (N=1,930)

	Average spend	% of total spend
On-Mountain	$44.32	37.2%
Off-Mountain	$75.02	62.8%
Restaurants	($22.47)	18.8%
Accommodation	($27.46)	23%
Souvenirs	($3.96)	3.4%
Groceries	($8.08)	6.7%
Transfers	($3.60)	3.0%
Miscellaneous	($9.45)	7.9%
Total	$119.34	100.00%

- On mountain spend averages $44.32 per day
- Off mountain spend averages $75.02 per day
- On mountain spend represents 37.2% of the total daily spend with off mountain spending accounting for 62.8%

THE ECONOMIC IMPACTS

When a visitor spends money on a ski-field or in a local town like Ohakune or National Park, a part of this sum will quickly be turned into jobs and income within the enterprise (hotel, restaurant etc). This is the **direct** economic impact of tourism and forms the focus of our research.

For example, if a local business that receives $100,000 in ski-related revenue and spends $35,000 of this on wages and salaries, the direct income generation coefficient would be 0.35 (in other words 35¢ in every dollar of revenue generated is transformed into direct income).

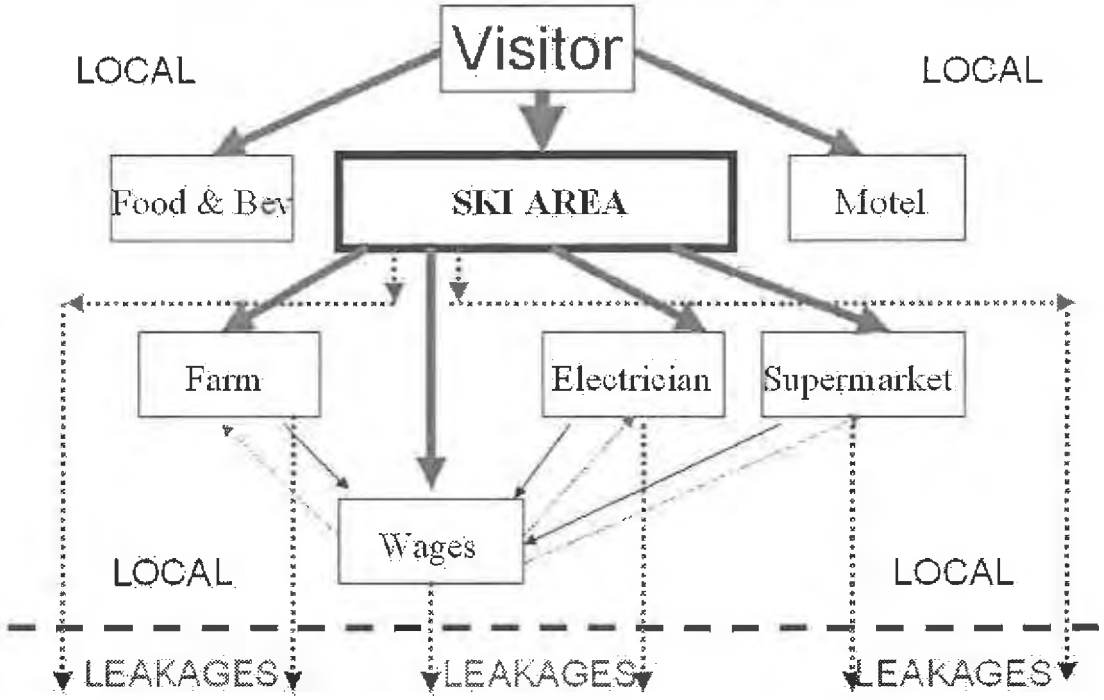
Another company may employ 100 staff and generate sales revenue of $1 million. This means that one job is generated for every $10,000 that the firm turns over. In this case the employment generation coefficient is 1.0.

Beyond the direct impacts lie further degrees of interaction with the local economy. Local businesses spend money on necessary goods and services and pass a portion of their tourism-related revenues on to these suppliers. If the next 'link in the chain' is located within the region, more local income and employment will be generated (**indirect** effect).

Information on the ways in which different segments of the economy convert tourist expenditure into income is derived from business interviews during which we gather detailed information on cost structures and the portion of purchases that flow to the local economy of Ohakune/National Park. By combining the income generation capabilities of different businesses, and the proportion of the average dollar spend by visitors, we can estimate the income generated per dollar spent by visitors to locality.

Similarly, when local residents who have received wages, salaries or profits (directly or indirectly) from tourism spend their money within the region it creates a further round of income and employment generation (the **induced** effect). It is the portion of spending that stays in the region (as wages, investment, purchases, etc.) that determines the size of the multiplier. The greater the linkages to the local economy the greater the employment and income multipliers will be.

CHART 36: The Local Economic Impact of Ruapehu Ski Areas



The induced effect is difficult to measure as we require detailed information on the expenditure patterns of workers resident in the region. To assist us in getting a more accurate picture of worker expenditure we conducted a survey of Mt. Ruapehu ski area employees (See Appendix E). The worker survey revealed the following average expenditure patterns.

CHART 37: Weekly staff spend off-mountain N=105

WEEKLY SPEND OF EMPLOYEES OFF-MOUNTAIN N=105			
	Total Spend	% of Spend	Weekly Spend Per Person
Rests/Pubs	$3,731.00	21%	$35.53
Accomm	$5,373.00	30%	$51.17
Groceries	$4,950.00	28%	$47.14
Shopping	$745.00	4%	$7.09
Other	$2,929.00	17%	$27.89
Total	**$17,728.00**	**100.00%**	**$168.82**

- The highest expenditure per week for staff is accommodation ($51.17)
- Groceries accounts for 28% of expenditure at $47.14
- The major classification in 'other' was fuel

CHART 38: Daily staff spend on mountain N=105

DAILY SPEND OF EMPLOYEES ON MOUNTAIN N=105			
	Total Spend	% of Spend	Daily Spend Per Person
Ski Related	$115.50	16%	$1.10
Food and Drink	$439.00	62%	$4.18
Souvenirs	$63.00	9%	$0.60
Miscellaneous	$90.00	13%	$0.80
Total	**$707.50**	**100%**	**$6.68**

- Staff spend, on average, $6.68 on the mountain every day
- Food and Drink accounted for 62% of expenditure at $4.18

The average daily spend on the mountain by workers is $6.68. By contrast the average spend off the mountain is over $24 per day (or $168.82 weekly). It is vital when reviewing the economic impact of the ski area that we factor in the work force both in terms of overall spend and their links with the local economy.

By combining the expenditure figures with the income and employment generation coefficients for various sectors we are able to calculate the overall impact of visitor expenditure in the Ohakune/National Park area.

CHART 39: Total Income and Employment Generation

INCOME GENERATION	**Cents per skier dollar spent**
Direct Income	0.33
Indirect Income	0.04
Induced	0.05
TOTAL	**0.42**
EMPLOYMENT GENERATION	**Jobs per $10,000 of skier spend**
Direct Employment	0.36
Indirect Employment	0.05
Induced	0.06
TOTAL	**0.47**

When the direct, indirect and induced components of income generation are combined our research reveals that for every dollar spent by a ski field visitor 42 cents of income is generated for the local economy. In other words for every million dollars of tourist expenditure $420,000 of local income is created.

When the direct, indirect and induced components of employment generation are combined, our research reveals that for every $10,000 spent by visitors 0.47 jobs (seasonal/year round - full-time and part-time) are created. This means that for every million dollars of tourist expenditure 47 local jobs are created. One job (seasonal or part time) is created for every $21,300 of visitor expenditure.

The average visitor daily spend multiplied by the number of skier days (382,000) generates a total expenditure of $45.58 million. The total expenditure multiplied by the local income multiplier (0.42) provides the total in local income generated ($19.14 million).

The total expenditure multiplied by the local employment multiplier (0.47) equals the total number of jobs generated (2142).

Our research reveals that the Ruapehu ski areas bring considerable benefits to the Ohakune/National Park economy. Far from being an isolated centre of visitor activity, the mountain is closely linked to the local economy and generates considerable income and employment. We have shown that these benefits don't just extend to the ski industry and tourism operators, but also to local suppliers of non-tourism specific goods and services.

In summary, Whakapapa and Turoa are a vital component of the local economy. If the ski area has a good year the benefits will be passed directly to local households in the form of increased job opportunities and income. In a bad year the negative impacts on the local economy be will be similarly dramatic–with local incomes and employment falling.

EXPENDITURE DIARY

To gain an improved understanding of the broader economic role of ski area visitors we conducted a small scale survey using an Expenditure Diary (see Appendix C).

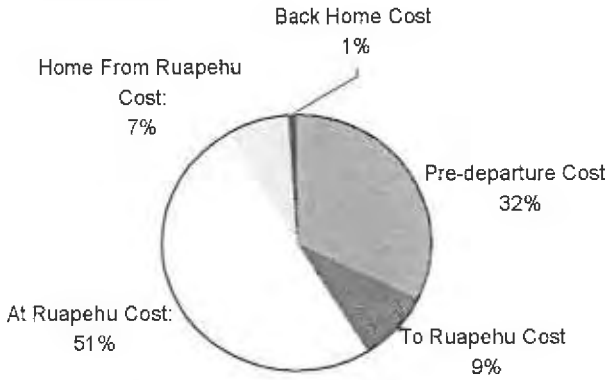
The respondents to the Expenditure Diary were not a random sample of Mt Ruapehu users. Rather, the respondents were drawn from the RAL database of previous visitors. This factor and the sample size mean the results should not be used as a stand-alone set of data. However, used in conjunction with other data sets the results provide a valuable insight into spending patterns at a regional and North Island level.

CHART 40: Average Mt Ruapehu ski trip expenditure patterns N=25

Category	% of Total	Total
Pre-departure Cost	32%	$66.09
To Ruapehu Cost	9%	$18.40
At Ruapehu Cost	51%	$103.88
Home from Ruapehu Cost	7%	$14.73
Back Home Cost	1%	$2.16
Average Total Cost	100%	$205.26

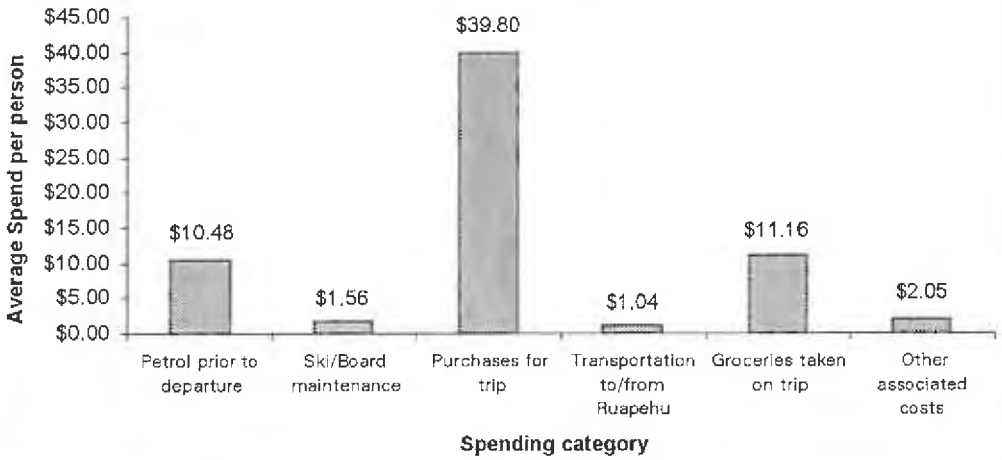
- The average Expenditure Diary respondent spends a total of $205.26 on a ski trip
- The average Expenditure Diary respondent spends just under half of total ski trip expenditure on pre-trip and travel related expenses (49.4%)
- The second highest spending time is prior to ski trip departure, when 32.2% ($66.09) is spent

CHART 41: Expenditure Diary: Total Spending Proportions N=25

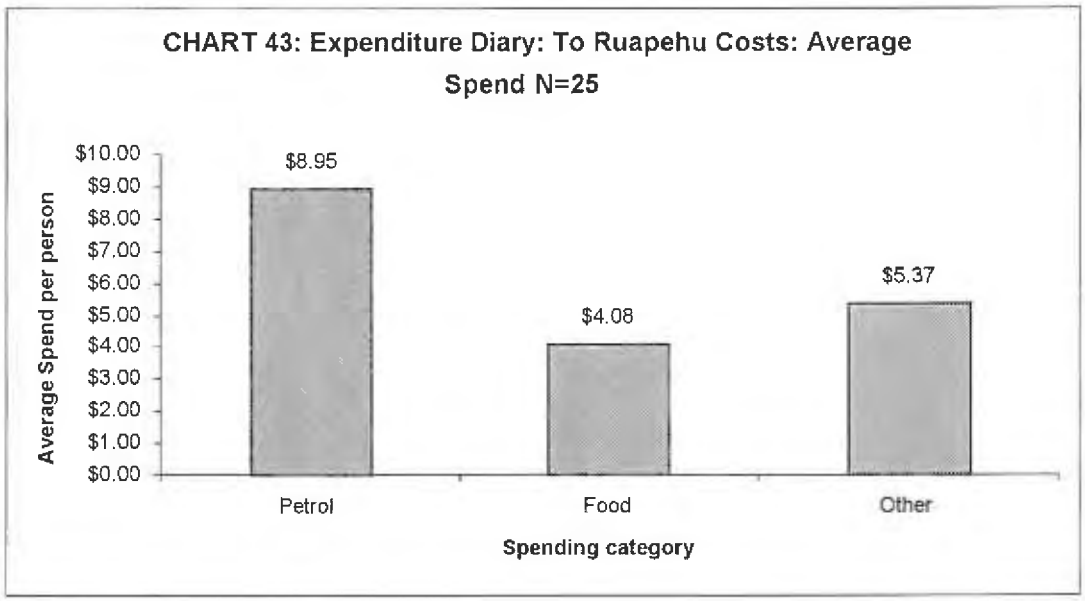


- Just over half of all ski trip expenditure occurred while At Ruapehu (51%)
- The second highest spending time is the time prior to Ski trip departure, when 32% of total expenditure is incurred

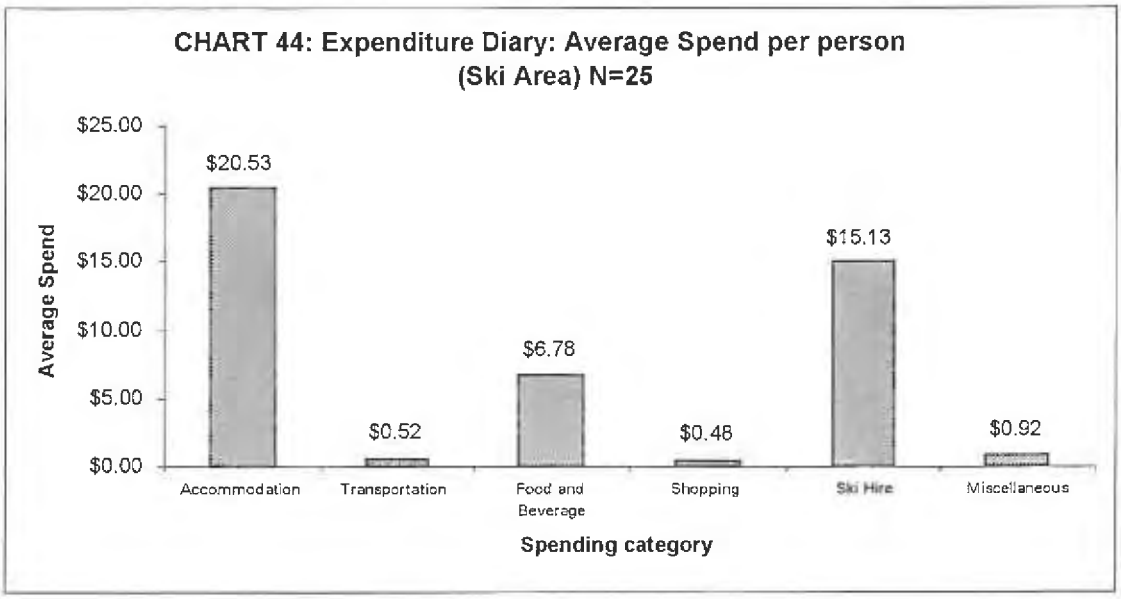
CHART 42: Expenditure Diary: Pre-Departure Costs: Average Spend n=25



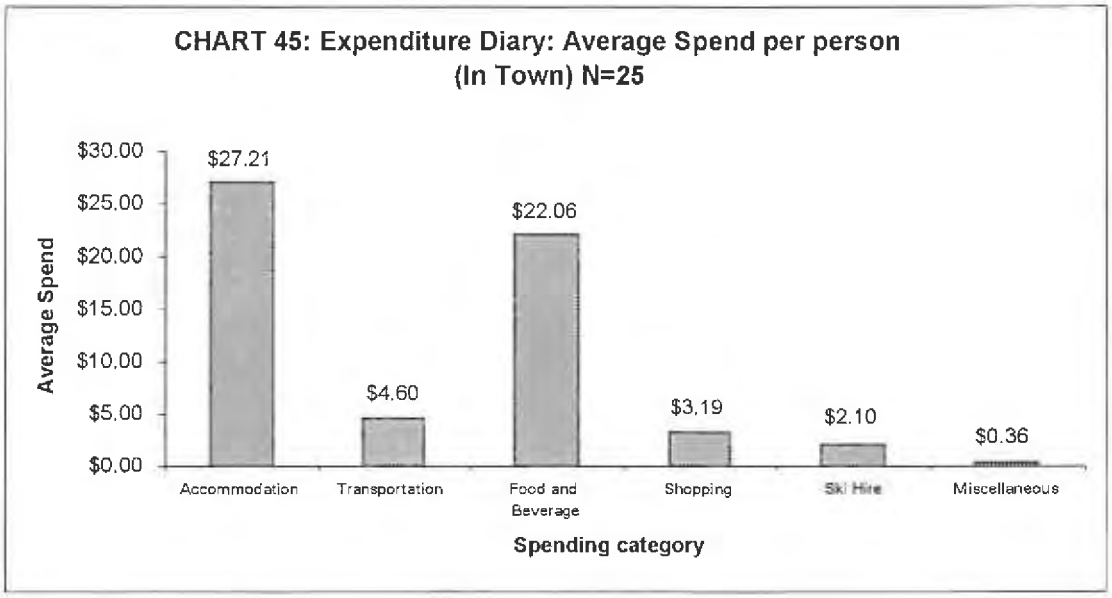
- The highest spending category for the average respondent is purchases for the trip ($39.80)
- Groceries taken on the trip rate second ($11.16), and petrol purchases prior to departure ($10.48) are the next most significant item
- The lowest spending category is transportation to/from Ruapehu ($1.04)
- The total average pre-departure spend is $66.09



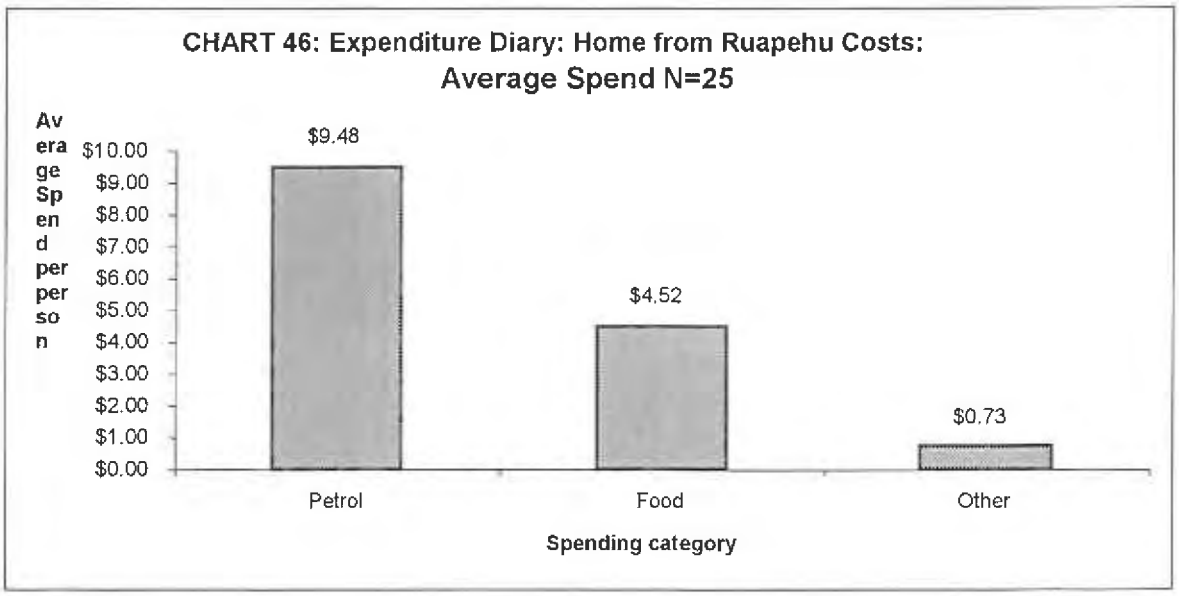
- Petrol is the biggest expense on the way to Ruapehu ($8.95)
- Food is the smallest 'to Ruapehu' cost ($4.08)
- The total average 'to Ruapehu' cost is $18.40



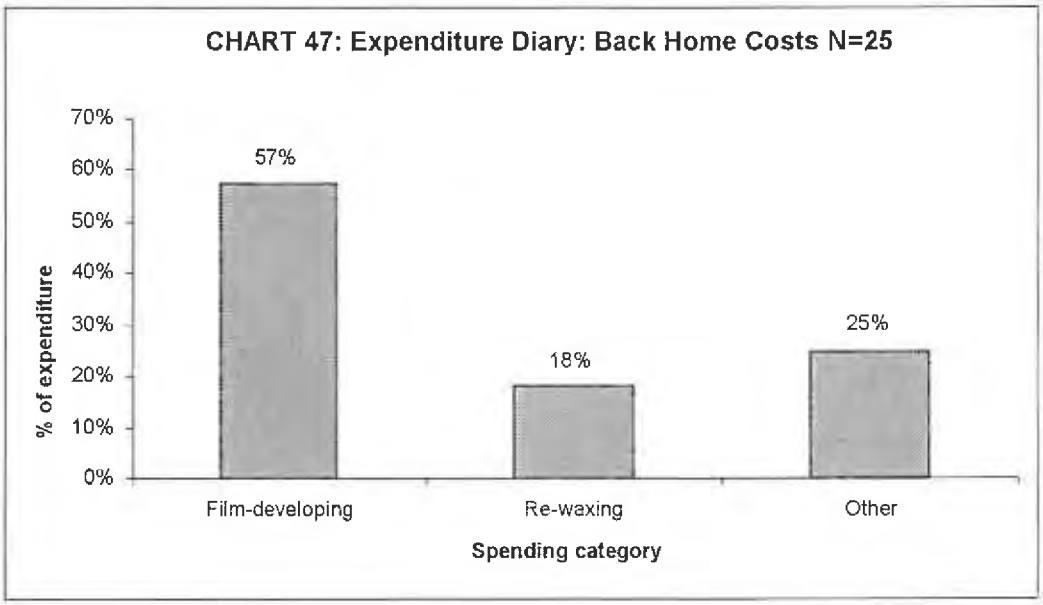
- Accommodation is the category with the highest spend on the ski-field ($20.53)
- Ski hire is the second highest category at $15.13 per person per day on the ski-field
- Transportation is the lowest spending category, at $0.52 per day
- The total average spend, at the ski area, is $44.36



- Accommodation is the category with the highest spend in town ($27.21)
- Food and Beverage is the second highest category at $22.06 per person per day in town
- The total average spend, in town, is $59.52



- Petrol is the biggest expense on the way home from Ruapehu ($9.48)
- The miscellaneous spending category is the smallest 'Home From Ruapehu' cost ($0.73)
- The total average spend, home from Ruapehu, is $14.73



- The highest 'Back Home' cost for an average Mt Ruapehu Ski Area user is film developing, constituting over half of all back home costs (57%)
- Re-waxing of ski's and snowboards is the lowest back home expense (18%), while other costs incurred when back at home constitute 25%

CHART 48: Stopping Points on route to Mt Ruapehu N=25

Where Stopped (Petrol)	**% of respondents**
Te Kuiti	26.7%
Otorahanga	13.3%
Turangi	6.7%
Bulls	13.3%
Other	40%
Total	100%
Where Stopped (Food)	
Te Kuiti	26.3%
Bulls	10.5%
Turangi	10.5%
Taupo	10.5%
Other	42.2%
Total	100%
Where Stopped (Other)	
National Park	33.3%
Te Kuiti	33.3%
Bulls	16.7%
Taupo	16.7%
Total	100%

CHART 49: Stopping Points on route from Mt Ruapehu N=25

Where Stopped (Petrol)	**% of respondents**
Taumaranui	11%
Otorahanga	11%
Turangi	17%
Ngarauwahia	11%
Other	50%
Total	100%
Where Stopped (Food)	
Te Kuiti	29%
Ngarauwahia	10%
Turangi	10%
Taumaranui	10%
Other	41%
Total	100%
Where Stopped (Other)	
Te Kuiti	50%
Otorahanga	50%
Total	100%

- Te Kuiti is a major beneficiary of travel to the ski areas with petrol, food and other purchases commonly being made by the diary respondents. Turangi, Bulls, and Taupo are other towns to have received benefits.
- Return travel from the ski area provides a number of economic benefits- particularly for Taumaranui, Turangi, and Te Kuiti. Ngarauwahia also benefits far from the return leg journey than it does on the original leg.

Those completing the diary will spend approximately $100.00 elsewhere in the North Island in getting to/from the ski area.

Each increase of 100,000 skier trips will be accompanied by a $10 million spend in the North Island. This has a big impact for smaller towns en route to the ski area.

Each reduction in 100,000 skier trips will see a $10 million reduction in spend (although this may be allocated elsewhere).

BUSINESS SURVEY

Our interviews focussed primarily on businesses directly affected by ski area visitor expenditure (accommodation, restaurants, equipment rentals). Other businesses that experience indirect benefits from visitor expenditure were interviewed to provide information on the indirect results of visitors to the region.

All interviewees considered themselves to be permanent residents in the region. 90% of the interviewees have lived in the area for over 8 years. This sample represents a stable and lasting business population that can comment knowledgably on the evolution of the local economy and the influence the ski areas have on the region.

The main comments to emerge from the business interviews are as follows:

- The purchase of Turoa ski-field by Ruapehu Alpine Lifts is seen as being extremely positive and will have benefits for the local community, especially Ohakune.
- This notion is tempered by the fact that the ski-field merger is in its infancy and the results are yet to be seen. There was limited concern that the dominant position of RAL may result in a lack of consultation with local communities.
- Due to the eruptions of Mt Ruapehu (1994/95) and the no snow year (1998) there has been a realisation that the development of a summer tourist season is important to long-term sustainability of the tourism industry.
- The majority of respondents expressed approval of the marketing campaigns of Mt Ruapehu and RAL. The most common remark was that the campaign was a vast improvement on previous years.
- There was some concern expressed about the high level of rates the district council charge for the services they provide. However it was acknowledged that this was caused by the large amount of unratebale land, under Department of Conservation management.
- A high number of respondents recognised the role of Information Technology in their operations with comments such as 'you have to keep up don't you'.

- There was some concern expressed that the natural resource base of tourism in the region may become degraded due to increasing use by visitors. It was recognised that the natural environment must be protected in order to maintain their operations.

- Most expressed support for the Department of Conservation however a few did mention that the department has too much say in the region considering that their decisions directly affect the tourism industry.

- Few saw any level of conflict between the ski industry and the local community indeed it was suggested that 'without the mountain Ohakune would be another Raetihi'.

- The role of national and regional tourism organisations, in general, were not ranked highly as the operators considered themselves to be too small to warrant their use.

- A general concern about the availability of suitable labour was expressed by a number of respondents. This problem is exacerbated by the seasonal nature of the tourism industry at present.

- There is a perception that the Ruapehu District Council is not doing enough to promote the tourism industry in the region. This was noted especially when the RDC was compared to other District Councils in the country.

- Concern was expressed at the ability of the community's facilities to cope with the weekend extremes of visitor numbers. Increased crime, rubbish in the streets and general disorderly behaviour were cited as negative effects.

- Most of the businesses surveyed are optimistic about the future and some are considering reinvesting in plant and machinery for the first time in many years.

RESPONDENTS' COMMENTS

This section looks at some of the broader comments and issues that were raised in the survey and interview process.

The comments are split into two classifications: Positive and Negative and then broken down into five categories: Facilities, Service and Pricing, Lifts, Food and Beverage, and Information.

For the Whakapapa Mountain Survey 35.2% of respondents made some form of comment. For the Turoa Mountain Survey 34.4% of respondents made some form of comment.

It should be noted that these comments were unsolicited and therefore the greater ratio of negative comments over positive comments is to be expected.

WHAKAPAPA MOUNTAIN SURVEY: VISITOR COMMENTS

FACILITIES

	No. of mentions N=45	Common Comment
Positive	9	Improved greatly in recent years
Negative	36	Needs up-grading Need more and better toilets Facilities cannot cope with visitor numbers

SERVICE AND PRICING

	No. of mentions N=58	Common Comment
Positive	30	Service has improved since merger Cheaper season passes are excellent Staff are very friendly and helpful
Negative	28	Hire costs are ridiculous Lift staff are rude, ticket staff inattentive Whole area is very expensive

LIFTS

	No. of mentions N=20	Common Comment
Positive	0	
Negative	20	Need more and better lifts Lift capacity is appalling

FOOD AND BEVERAGE

	No. of mentions N=29	Common Comment
Positive	3	Improved greatly in recent years
Negative	26	Cafes are congested, dirty, and need improving Never buy food on mountain Vegetarian and health foods needed

INFORMATION

	No. of mentions N=23	Common Comment
Positive	1	Internet site is excellent
Negative	22	Need better signage in area Internet lacks detailed information Area needs more marketing

TUROA MOUNTAIN SURVEY: VISITOR COMMENTS

FACILITIES

	No. of mentions N=76	Common Comment
Positive	9	Improved greatly in recent years
Negative	67	All facilities need a major overhaul Toilets are disgusting Creche facilities are long overdue

SERVICE AND PRICING

	No. of mentions N=70	Common Comment
Positive	30	Staff are outstanding, friendly and helpful Service has improved since merger Cheaper season passes are excellent
Negative	40	Service is erratic, one day good one day bad Disorganised, inflexible and inefficient Food is far too expensive

LIFTS

	No. of mentions N=18	Common Comment
Positive	0	
Negative	18	Lift access to higher parts of mountain More lifts needed to accommodate numbers More rope tows for beginners

FOOD AND BEVERAGE

	No. of mentions N=36	Common Comment
Positive	6	Good to see an improvement
Negative	30	Food standard and quality is poor F and B is over-priced Food is unhealthy and lacks range

INFORMATION

	No. of mentions N=19	Common Comment
Positive	0	
Negative	19	Need better signage on mountain and runs Lack of regular and accurate snow reports Area needs more marketing

CONCLUSIONS

This report has focused on the local economic impact of the Ruapehu ski areas on the Ohakune/National Park economy and surrounding areas. The average daily spend on-mountain on Turoa and Whakapapa is $44.32 The average daily expenditure off-mountain is $75.02. If mountain and Ohakune/National Park expenditure are combined each visitor spends $119.34 per day.

Visitors to Mt Ruapehu also have an important downstream impact on the North Island economy. The expenditure diary shows that almost as much money is spent prior to departure and during the travel phases as is spent on the mountain and surrounding towns.

Our research reveals that for every dollar spent by a visitor, 42 cents of income is generated for the local economy. In other words for every million dollars of tourist expenditure, $420,000 of local income is created. For every $10,000 spent by visitors, 0.47 jobs (seasonal and full time) are created. In other words for every million dollars of tourist expenditure, 47 local jobs are created.

Visitors are generally satisfied with the snow-sports experience and by the facilities and character of surrounding towns. They did, however, make a number of constructive comments regarding product development and information provision.

The local businesses we interviewed generally saw the ski areas playing a vital role in he local economy, and welcomed the expansion of business that winter brings for the town. There were, however, some concerns expressed about the fact that the ski areas could be better linked with the local economy. Our detailed analysis of visitor and business comments and reactions reveals the value of incorporating this type of qualitative material within more quantitative economic impact studies.

Our research reveals that the Turoa and Whakapapa ski areas bring considerable benefits to the economy of Ohakune/National Park and surrounding area. Ruapehu visitors also spend significant amounts of money throughout the North Island both before and after their mountain visit. Far from being an isolated centre of visitor activity, the mountain is closely linked to the local economy and generates considerable income and employment. We have shown that these benefits do not just extend to the ski industry and tourism operators, but also to local suppliers of non-tourism-specific goods and services.

In summary, Turoa and Whakapapa ski fields are a vital component of the local economy. If the ski area has a good year the benefits will be passed directly to local households in the form of increased job opportunities and income. In a bad year the negative impacts on the local economy be will be similarly dramatic – with local incomes and employment falling. It is pleasing to note that a clear majority of both visitors and local business people view the ski areas in a positive light – as a provider of an excellent ski/tourism product, as a vital economic force in the locality, and as a good corporate and community citizen.

APPENDIX A

LOCAL ECONOMIC IMPACT OF THE WHAKAPAPA SKI AREA – Mountain Survey

WHAKAPAPA SKI AREA

What town or city do you live in? _____ What country do you live in? _____

Where did you come from today? _____ How did you get to the ski area? _____

Why you are visiting Whakapapa today? [✓] Skiing [ ] Snowboarding [ ] Other: _____

Who are you travelling with? [✓] Partner [ ] Friend(s) [ ] Family [ ] Self [ ] Group: _____

How many people are travelling with you? _____ Have you visited the South Island to ski before? Y [ ] N [ ]

Have you visited the Whakapapa ski area before? [✓] Y [ ] N [ ] If yes, how many times? _____

Have you visited the Turoa ski area before? [✓] Y [ ] N [ ] If yes, how many times? _____

Which parts of your holiday were booked before arrival? [✓] Lifts [ ] Rental [ ] Transfers [ ] Accommodation [ ]

If you are on a package, how much did it cost? $ _____ Do you have a season pass? Y [ ] N [ ] Cost: $_____

How did you find out about the Whakapapa ski area? _____

EXPENDITURE

The following questions are designed to help us find out how much money is being spent by visitors to the Whakapapa Ski Area, and the Ruapehu area. We would appreciate it if you could fill this section out as completely as possible.

How many people in total are included in this estimate? _____ = Adults _____ Teenagers _____ Children _____
(eg. you, your partner & child = 3, just yourself = 1)

WHAKAPAPA SKI AREA

Please estimate how much you expect to spend at Whakapapa Ski Area today (except pre-paid elements):

	Ski-related / hire (passes, skis, chains, lessons, etc.)	Food & Drink	Product Purchases (clothing, skis, etc)	Other (please specify)
Spend $				

OHAKUNE / WHAKAPAPA VILLAGE / NATIONAL PARK

How long is your stay in Ruapehu? (nights) _____ How many days will you ski or snowboard: _____

Where are you staying in Ruapehu? (please provide details) _____

Please estimate your average spend per day in this area:

	Restaurants Pubs Cafés	Accommodation	Shopping (souvenirs etc)	Shopping (groceries)	Mountain transfers	Other Expenses (please specify, eg fuel, tours etc)
Spend $						

Thank you on behalf of the Ski Areas Association of New Zealand

LOCAL ECONOMIC IMPACT OF THE WHAKAPAPA SKI AREA - Mountain Survey

WHAKAPAPA SKI AREA

What town or city do you live in? _____ What country do you live in? _____

Where did you come from today? _____ How did you get to the ski area? _____

Why you are visiting Whakapapa today? [✓] Skiing [ ] Snowboarding [ ] Other: _____

Who are you travelling with? [✓] Partner [ ] Friend(s) [ ] Family [ ] Self [ ] Group: _____

How many people are travelling with you? _____ Have you visited the South Island to ski before? Y [ ] N [ ]

Have you visited the Whakapapa ski area before? [✓] Y [ ] N [ ] If yes, how many times? _____

Have you visited the Turoa ski area before? [✓] Y [ ] N [ ] If yes, how many times? _____

Which parts of your holiday were booked before arrival? [✓] Lifts [ ] Rental [ ] Transfers [ ] Accommodation [ ]

If you are on a package, how much did it cost? $ _____ Do you have a season pass? Y [ ] N [ ] Cost: $_____

How did you find out about the Whakapapa ski area? _____

EXPENDITURE

The following questions are designed to help us find out how much money is being spent by visitors to the Whakapapa Ski Area, and the Ruapehu area. We would appreciate it if you could fill this section out as completely as possible.

How many people in total are included in this estimate? (eg. you, your partner & child = 3, just yourself = 1) _____ = Adults _____ Teenagers _____ Children _____

WHAKAPAPA SKI AREA

Please estimate how much you expect to spend at Whakapapa Ski Area today (except pre-paid elements):

	Ski-related / hire (passes, skis, chains, lessons, etc.)	Food & Drink	Product Purchases (clothing, skis, etc)	Other (please specify)
Spend $				

OHAKUNE / WHAKAPAPA VILLAGE / NATIONAL PARK

How long is your stay in Ruapehu? (nights) _____ How many days will you ski or snowboard: _____

Where are you staying in Ruapehu? (please provide details) _____

Please estimate your average spend per day in this area.

	Restaurants Pubs Cafés	Accommodation	Shopping (souvenirs etc)	Shopping (groceries)	Mountain transfers	Other Expenses (please specify, eg fuel, tours etc)
Spend $						

Thank you on behalf of the Ski Areas Association of New Zealand

EXPENDITURE MAP (Please fill in where expenditure occurs on your ski trip as accurately as possible)

1	Auckland	$
2	Hamilton	$
3	Taupo	$
4	Whakapapa Village	$
5	National Park	$
6	Ohakune Township	$
7	Palmerston North	$
8	Wellington	$
9	Other Area:_____	$

What is your gender? [✓] Male [ ] Female [ ]

Do you have access to the Internet? [✓] Y [ ] N [ ]

Which age group do you belong to? [✓] [ ] -18 [ ] 18 - 35 [ ] 36 - 55 [ ] 56+

What is your employment situation? [✓]

[ ] Full time wage or salary [ ] Part time/casual [ ] Self-employed
[ ] Student [ ] Retired [ ] Other

What is your annual personal income before tax? [✓]

under $10,000 [ ]	$10,000-20,000 [ ]	$20,001-40,000 [ ]	$40,001-60,000 [ ]
$60,001-80,000 [ ]	$80,001-100,000 [ ]	$100,001-150,000 [ ]	over $150,000 [ ]

Please feel free to add any comments you may have about the Whakapapa Ski Area, Whakapapa Village, National Park or Ohakune Township.

Thank you on behalf of the Ski Areas Association of New Zealand

APPENDIX B
LOCAL ECONOMIC IMPACT OF THE TUROA SKI AREA - Mountain Survey

TUROA SKI AREA

What town or city do you live in? _____ What country do you live in? _____

Where did you come from today? _____ How did you get to the ski area? _____

Why you are visiting Turoa today? [✓] Skiing [ ] Snowboarding [ ] Other: _____

Who are you travelling with? [✓] Partner [ ] Friend(s) [ ] Family [ ] Self [ ] Group: _____

How many people are travelling with you? _____ Have you visited the South Island to ski before? Y [ ] N [ ]

Have you visited the Turoa ski area before? [✓] Y [ ] N [ ] If yes, how many times? _____

Have you visited the Whakapapa ski area before? [✓] Y [ ] N [ ] If yes, how many times? _____

Which parts of your holiday were booked before arrival? [✓] Lifts [ ] Rental [ ] Transfers [ ] Accommodation [ ]

If you are on a package, how much did it cost? $ _____ Do you have a season pass? Y [ ] N [ ] Cost: $ _____

How did you find out about the Turoa ski area? _____

EXPENDITURE

The following questions are designed to help us find out how much money is being spent by visitors to the Turoa Ski Area and the Ruapehu area. We would appreciate it if you could fill this section out as completely as possible.

How many people in total are included in this estimate? _____ = Adults _____ Teenagers _____ Children _____
(eg. you, your partner & child = 3, just yourself = 1)

TUROA SKI AREA

Please estimate how much you expect to spend at Turoa Ski Area today (except pre-paid elements):

	Ski-related / hire (passes, skis, chains, lessons, etc.)	Food & Drink	Product Purchases (clothing, skis, etc)	Other (please specify)
Spend $				

OHAKUNE / WHAKAPAPA VILLAGE / NATIONAL PARK

How long is your stay in Ruapehu? (nights) _____ How many days will you ski or snowboard: _____

Where are you staying in Ruapehu? (please provide details) _____

Please estimate your average spend per day in this area:

	Restaurants Pubs Cafés	Accommodation	Shopping (souvenirs etc)	Shopping (groceries)	Mountain transfers	Other Expenses (please specify, eg fuel, tours etc)
Spend $						

Thank you on behalf of the Ski Areas Association of New Zealand

LOCAL ECONOMIC IMPACT OF THE TUROA SKI AREA – Mountain Survey

TUROA SKI AREA

What town or city do you live in? _____ What country do you live in? _____

Where did you come from today? _____ How did you get to the ski area? _____

Why you are visiting Turoa today? [✓] Skiing [ ] Snowboarding [ ] Other: _____

Who are you travelling with? [✓] Partner [ ] Friend(s) [ ] Family [ ] Self [ ] Group: _____

How many people are travelling with you? _____ Have you visited the South Island to ski before? Y [ ] N [ ]

Have you visited the Turoa ski area before? [✓] Y [ ] N [ ] If yes, how many times? _____

Have you visited the Whakapapa ski area before? [✓] Y [ ] N [ ] If yes, how many times? _____

Which parts of your holiday were booked before arrival? [✓] Lifts [ ] Rental [ ] Transfers [ ] Accommodation [ ]

If you are on a package, how much did it cost? $ _____ Do you have a season pass? Y [ ] N [ ] Cost: $ _____

How did you find out about the Turoa ski area? _____

EXPENDITURE

The following questions are designed to help us find out how much money is being spent by visitors to the Turoa Ski Area and the Ruapehu area. We would appreciate it if you could fill this section out as completely as possible.

How many people in total are included in this estimate? _____ = Adults _____ Teenagers _____ Children _____
(eg. you, your partner & child = 3, just yourself = 1)

TUROA SKI AREA

Please estimate how much you expect to spend at Turoa Ski Area today (except pre-paid elements):

	Ski-related / hire (passes, skis, chains, lessons, etc.)	Food & Drink	Product Purchases (clothing, skis, etc)	Other (please specify)
Spend $				

OHAKUNE / WHAKAPAPA VILLAGE / NATIONAL PARK

How long is your stay in Ruapehu? (nights) _____ How many days will you ski or snowboard: _____

Where are you staying in Ruapehu? (please provide details) _____

Please estimate your average spend per day in this area:

	Restaurants Pubs Cafés	Accommodation	Shopping (souvenirs etc)	Shopping (groceries)	Mountain transfers	Other Expenses (please specify, eg fuel, tours etc)
Spend $						

Thank you on behalf of the Ski Areas Association of New Zealand

EXPENDITURE MAP (Please fill in where expenditure occurs on your ski trip as accurately as possible)

1	Auckland	$
2	Hamilton	$
3	Taupo	$
4	Whakapapa Village	$
5	National Park	$
6	Ohakune Township	$
7	Palmerston North	$
8	Wellington	$
9	Other Area:_____	$

What is your gender? [✓] Male [ ] Female [ ]

Do you have access to the Internet? [✓] Y [ ] N [ ]

Which age group do you belong to? [✓] [ ] -18 [ ] 18 - 35 [ ] 36 - 55 [ ] 56+

What is your employment situation? [✓]

[ ] Full time wage or salary [ ] Part time/casual [ ] Self-employed
[ ] Student [ ] Retired [ ] Other

What is your annual personal income before tax? [✓]

under $10,000	$10,000-20,000	$20,001-40,000	$40,001-60,000
$60,001-80,000	$80,001-100,000	$100,001-150,000	over $150,000

Please feel free to add any comments you may have about the Turoa Ski Area, Ohakune Township, National Park or Whakapapa Village.

Thank you on behalf of the Ski Areas Association of New Zealand

APPENDIX C

Fill in the following Diary and go into a draw to WIN a Ski Package or Product worth $800!

Economic Impact Study: The Mount Ruapehu Ski Area

EXPENDITURE DIARY

The following questions are designed to help us find out how much money is spent from the time you leave home for your ski trip until the time you arrive back, and all expenses incurred in between. We would appreciate it if you could fill this diary out as completely and as accurately as possible.

"GENERAL INFORMATION"

Area of Residence: eg) Auckland, Wellington

Date/Time of Departure: | Date/Time of Return:

Purpose of Trip [✓] Skiing [ ] Snowboarding [ ] Other: _____ | Length of Trip: days / nights: /

How many people are travelling with you? | Number of people accounted for in this diary:

Area skiing in or using: [✓] Ohakune / Turoa [ ] Whakapapa [ ] National Park [ ] Other: _____

Area of Ruapehu staying in: [✓] Ohakune / Turoa [ ] Whakapapa [ ] National Park [ ] Other: _____

Name of Accommodation: eg) Pipers Lodge, The Chateau etc.

Method of Transportation to/from Ruapehu: [✓] Private vehicle [ ] Rental vehicle [ ] Bus/coach [ ] Train [ ] Plane [ ] Other: _____

Do you have a season pass? [✓] Y [ ] N [ ] | If yes, how much did it cost? $

"PRE-DEPARTURE COSTS"

Petrol prior to departure: if applicable	$
Transportation to/from Ruapehu: eg) vehicle rental, bus, train tickets etc.	$
Groceries taken on trip:	$
Ski / Snowboard Maintenance: eg) waxing, edge grinding etc.	$
Purchase of clothes and/or Equipment for trip:	$
Other associated costs: eg) babysitter, house sitter, pet kennel, gym/fitness etc.	$
Total Pre-departure Costs:	$

"TO RUAPEHU COSTS"

Purchase:	Where purchased: eg) Hamilton, Taupo, Palmerston North etc.		Cost of Purchase:	
Petrol	Stop 1:	Stop 2:	Stop 1 $:	Stop 2 $:
Food (meals, snacks etc)	Stop 1:	Stop 2:	Stop 1 $:	Stop 2 $:
Other (oil, antifreeze etc)	Stop 1:	Stop 2:	Stop 1 $:	Stop 2 $:

"COSTS AT RUAPEHU"

Purchase:	On Ski-Field Expenditure: Please state which field eg) Turoa or Whakapapa and detail costs.		In Town Expenditure: Please state which area eg) Ohakune, Whakapapa Village, National Park or other and detail costs.	
Accommodation (including linen hire, room charges etc)	Field:	$	Town:	$
Transportation (petrol, mountain transfers etc)	Field:	$	Town:	$
Food and Beverage (restaurants, pubs, cafes etc)	Field:	$	Town:	$
Shopping (groceries etc)	Field:	$	Town:	$
Ski Hire (clothing, equipment, mountain passes, lessons, chains, locker hire etc)	Field:	$	Town:	$
Miscellaneous (souvenirs, tours, activities, attractions, movies etc)	Field:	$	Town:	$

"HOME FROM RUAPEHU COSTS"

Purchase:	Where purchased: eg) Hamilton, Taupo, Palmerston North etc.		Cost of Purchase:	
Petrol	Stop 1:	Stop 2:	Stop 1 $:	Stop 2 $:
Food (meals, snacks etc)	Stop 1:	Stop 2:	Stop 1 $:	Stop 2 $:
Other (oil, antifreeze etc)	Stop 1:	Stop 2:	Stop 1 $:	Stop 2 $:

"BACK HOME COSTS"

Film Developing:	$
Re-waxing of skis / snowboard:	$
Other associated costs: eg) car-wash, dry cleaning etc.	$

"EXTRA COSTS"

Any other costs that were not anticipated, or allowed for in this Diary:	$	$	$

Please feel free to add any comments you may have about this Expenditure Diary, and the Mt Ruapehu Ski Areas in general, Ohakune Township, National Park or Whakapapa Village.

APPENDIX D
LOCAL ECONOMIC IMPACT OF RUAPEHU SKI AREAS

ACCOMMODATION MONITOR

What town or city do you live in? _____ What country do you live in? _____

Who are you travelling with? [✓] Partner [ ] Friend(s) [ ] Family [ ] Self [ ] Tour group [ ]

How many people are you travelling with? _____

Is this your first visit to Ruapehu? [✓] Y [ ] N [ ] If no, how many times have you been here? _____

Are you staying in Ohakune, Whakapapa Village, National Park or another area? _____

Which parts of your holiday were booked before your arrival? [✓]

Vehicle Rental [ ] Transfers [ ] Accommodation [ ] Meals [ ] Activities [ ] Ski-related [ ]

How much did your package cost? $ _____

How did you find out about the Mt Ruapehu area? _____

Where did you stay the night prior to arriving in Ruapehu? _____

How long is your stay in Ruapehu? (nights) _____ How many days will you ski or snowboard? _____

What is the MAIN PURPOSE for your visit to Mt Ruapehu? _____

Where are you staying in this area? (please provide details) _____

EXPENDITURE

The following questions are designed to help us find out how much money is being spent by visitors to Mt Ruapehu and the surrounding area. We would appreciate it if you could fill this section out as completely as possible.

How many people are included in these estimates? (eg. you, your partner & child = 3, just yourself = 1) _____

Please estimate your average spend per day in Mt Ruapehu:

	Restaurants Pubs Cafés	Accommodation	Shopping (souvenirs etc)	Shopping (groceries)	Mountain transfers	Other Expenses: please specify eg) fuel, tours etc.
Spend $						

THE GREATER RUAPEHU REGION

How many nights have you spent in Ruapehu? _____ How many nights will you spend in Ruapehu? _____

How much money have you spent in Ruapehu? _____ How much will you spend in Ruapehu? _____

What is your gender? [✓] Male [ ] Female [ ]

Do you have access to the Internet? [✓] Y [ ] N [ ]

Which age group do you belong to? [✓]

under 15 [ ] 15-24 [ ]

25-34 [ ] 35-44 [ ]

45-54 [ ] 55-64 [ ]

65-74 [ ] Over 74 [ ]

What is your highest level of education? [✓]

School (college, high school) [ ]

Tertiary certificate or diploma (polytech, TAFE) [ ]

Undergraduate degree (Bachelor, Honours) [ ]

Postgraduate degree (Masters, Ph.D) [ ]

What is your employment situation? [✓]

Full time wage or salary [ ] Part time/casual [ ] Self-employed [ ]

Student [ ] Retired [ ] Other [ ]

What is your annual personal income before tax? [✓]

under $10,000 [ ] $10,000-20,000 [ ] $20,001-40,000 [ ] $40,001-60,000 [ ]

$60,001-80,000 [ ] $80,001-100,000 [ ] $100,001-150,000 [ ] over $150,000 [ ]

Please feel free to add any comments you may have about Mt. Ruapehu Ski Areas or Ohakune township, Whakapapa Village, or National Park.

Thank you on behalf of the Ski Areas Association of New Zealand.

APPENDIX E

LOCAL ECONOMIC IMPACT OF MT RUAPEHU SKI AREAS - Confidential Employee Survey

What country do you usually live in? [ ]

What town or city do you usually live in? [ ]

Where do you work at Mt Ruapehu?

Lifts [ ] Patrol [ ] School [ ] Rental/Retail [ ]

Food/Beverage [ ] Office [ ] Other (specify) [.....]

Have you worked here before? Y [ ] N [ ]

If yes, how many years have you worked here? [ ]

How did you find out about the job at Mt Ruapehu? [ ]

EXPENDITURE

The following questions are designed to help us find out how much money is being spent by employees of the Mt Ruapehu Ski Areas: on the field itself and in the Ruapehu area, including Ohakune, Whakapapa Village and National Park. We would appreciate it if you could fill this section out as completely as possible.

How many people are included in these estimates? (eg. you, your partner & child = 3, just yourself = 1) [ ]

MOUNT RUAPEHU SKI AREAS

Please estimate how much you expect to spend at Mount Ruapehu Ski Area on a daily basis:

	Ski-related	Food & Drink	Souvenirs	Other (please specify)
Spend $				

RUAPEHU

How long are you staying in Ruapehu? (weeks) [ ]

Are you staying in Ohakune, Whakapapa Village, National Park, or another town? [ ]

Where are you staying in this area? (please provide details) [ ]

Please estimate your average spend per week in Ruapehu:

	Restaurants Pubs Cafés	Accommodation	Shopping (souvenirs etc)	Shopping (groceries)	Other Expenses (please specify, eg fuel, tours etc)	
Spend $						

What is your gender? Male [ ] Female [ ]

Do you have access to the internet? Y [ ] N [ ]

Which age group do you belong to?

under 15 [ ] 15-24 [ ]

25-34 [ ] 35-44 [ ]

45-54 [ ] 55-64 [ ]

65-74 [ ] Over 74 [ ]

What is your highest level of education?

School [ ]

Tertiary certificate or diploma [ ]

Undergraduate degree [ ]

Postgraduate degree [ ]

What is your employment situation while working at Mt Ruapehu?

Full time wage or salary [ ] Part time [ ] Casual/On call [ ]

What is your employment situation normally (while not working at Mt Ruapehu)?

Full time wage or salary [ ] Part time/casual [ ] Self-employed [ ]

Student [ ] Retired [ ] Other [ ]

What is your annual personal income before tax?

under $10,000 [ ] $10,000-20,000 [ ] $20,001-40,000 [ ] $40,001-60,000 [ ]

$60,001-80,000 [ ] $80,001-100,000 [ ] $100,001-150,000 [ ] over $150,000 [ ]

Please feel free to add any comments you may have about Mt. Ruapehu Ski Areas or Ohakune Township, Whakapapa Village, or National Park township.

Thank you on behalf of the Ski Areas Association of New Zealand.

APPENDIX F

BUSINESS SURVEY QUESTIONNAIRE

Annual Sales Table

Revenue Category (please specify)	Value ($)	Attributable to visitors (%)
TOTAL INCOME		

Annual Costs Table

Cost Category		Payments made to... Ohakune, Whakapapa Village, and National Park (including Ski Areas)	Ruapehu Region	Total (including other areas)
Cost of Goods for Resale (in same condition)				
Food Items				
Drinks and Beverages				
Office Stationery & Supplies				
Security				
Laundry and Cleaning				
Marketing (advertising, promotion)				
Accounting and Auditing				
Legal Fees				
Misc. business expenses (travel, entertainment)				
Maintenance	Plant (vehicles, etc)			
	Property			
Transport (road haulage)				
Banking (interest, fees, etc)				
Communications (phone, post, Internet)				
Fuel				
Heat, Light and Power				
Wages and Salaries				
Insurance (ACC, contents, etc)				
Taxes				
Licence, Franchise and Association Fees				
Plant and Property Rental				
Total Depreciation on Fixed Assets				
Other Costs (please specify)				

Lifting the Region

The economic benefits of the Ruapehu ski-fields

Highlighting the regional economic benefits of Ruapehu ski-fields

January 2014

Ruapehu Alpine Lifts Ltd

pwc

David Mazey
Chief Executive Officer
Ruapehu Alpine Lifts Limited
Bruce Road
Private Bag 71902
Mt Ruapehu
3951

24 January 2014

Tēnā koe David

Economic value of Ruapehu ski-fields

We are pleased to present our report on the regional economic benefits of the Ruapehu ski-fields. This is provided in accordance with our engagement letter dated 26 September 2013.

The report points out that Ruapehu Alpine Lifts Limited's operations and capital developments provide significant economic stimulus to the Ruapehu / Taupo region. Beyond the quantifiable benefits resulting from Ruapehu Alpine Lift Limited's operations, the company plays a far reaching role in the community through its cadetship programme, schools programme and other initiatives.

Heoi anō

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Executive summary

Ruapehu Alpine Lifts Limited (RAL) commissioned this work to investigate the role that the Ruapehu ski-fields play in the regional economy, and the wider impacts of operations on the local community.

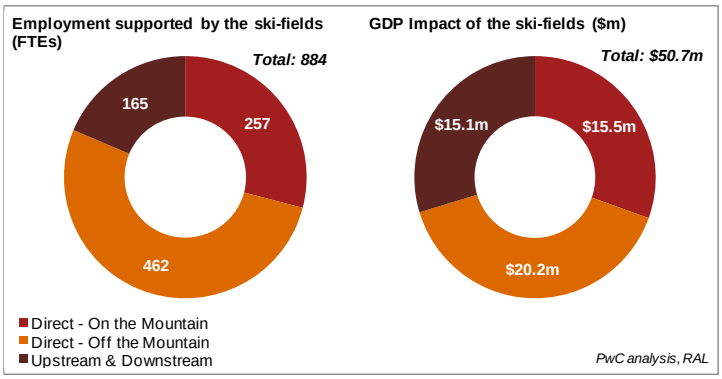
RAL is a public benefit entity and is licensed by the Department of Conservation (DoC) to operate the Whakapapa and Turoa ski-fields. RAL does not pay out dividends to any of its 4,000 shareholders, but instead ***re-invests all profits into the mountain***. Operating the ski-fields has two major impacts:

- ***Ongoing, annual*** impacts from running the ski-fields, which create jobs and Gross Domestic Product (GDP, or the value added to the economy by an activity).
- ***One-off*** capital projects that inject several million dollars into the local economy and that are over and above the business as usual operations of the ski-fields.

The ski-fields create jobs for over 880 full-time workers on an ongoing basis

The ongoing operations of the ski-fields contribute significantly to the regional economy in three ways:

- ***direct*** impacts of RAL's operations on employment and GDP ***on the mountain***
- ***direct*** impacts of ski-field operations on employment and GDP ***off the mountain***
- ***upstream and downstream*** impacts on employment and GDP ***on and off the mountain.***



RAL employs an average of ***257*** direct full-time equivalent workers (***FTEs***) on an ongoing basis and contributes $15m to local GDP from on the mountain operations.[1] During the ski season, the number of workers on the mountain is closer to 700. Because many of these jobs are seasonal, the calculations in this analysis have been converted into annual figures.

As visitors to the mountain purchase goods and services from other local businesses, an estimated ***460 FTEs*** are employed off the mountain in accommodation, retail, restaurant and other tourism-related businesses, and an additional $20m is contributed to local GDP.

As money from the ski-fields flows around the local economy, it supports further employment among suppliers of tourism businesses (***upstream***) and as tourism workers spend their incomes (***downstream***). In total, the ski-fields support more than 880 FTEs on an ongoing basis in the region. This is equivalent to ***16% of Ruapehu District employment***.

The importance of RAL's role in supporting local job creation is heightened by the fact that unemployment in the Ruapehu District is approximately one percentage point higher than the national average.[2] RAL is a key contributor to regional tourism and recreational industries – industries which are proportionately larger employers for the region than for wider New Zealand.[3]

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[1] All dollar values in this report are presented in 2013 dollars.

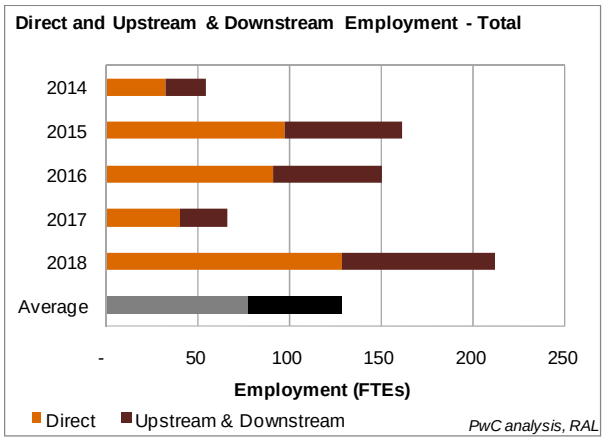
[2] Statistics New Zealand. (2013). *Census*. NB: this does not include youth unemployment.

[3] PricewaterhouseCoopers. (2013). *Regional Industry Database*.

Major ski-field capital projects will support 640 one-year FTEs over five years[4]

RAL has a significant capital expenditure programme planned, premised on being the ongoing licence holder for the Mt Ruapehu ski-fields. Planned developments as part of RAL's ongoing modernisation programme are ***intended to reduce the number of ski lifts on the mountain, but improve their quality***. They will also focus on improving the ***quality of the ski lift service and other recreation and tourism experiences***. This will simplify the operations on the mountain, making operations more sustainable and efficient and minimising the visual impacts of human construction on the mountain.

The proposed new developments are expected to lead to the equivalent of over ***640 one-year FTEs*** when both direct and upstream and downstream impacts are considered through proposed projects such as the Western Chondola lift at Whakapapa and the Sunset Express lift at Turoa. The ***average annual employment*** supported from developments is ***78 direct one-year FTEs and 51 upstream and downstream one-year FTEs***.



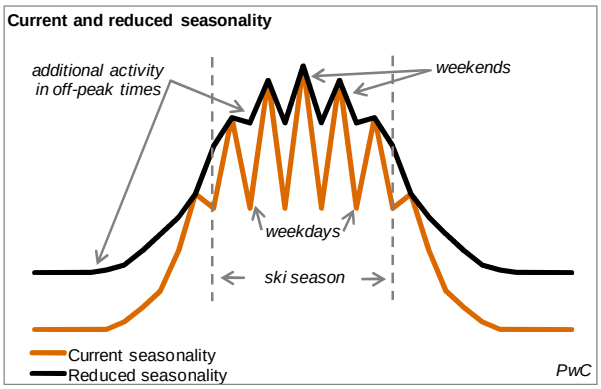
RAL supports the local economy through a number of other initiatives

RAL has been part of the Ruapehu / Taupo community for 60 years. It is committed to helping develop the local economy in a number of other, less easily quantifiable ways. These include:

- a commitment to local employment: Despite New Zealand applicants only making up approximately 25% of total job applicants at RAL, over half of the staff at RAL are New Zealand residents. RAL's interview policy ***guarantees an interview to local applicants.***
- running a Ruapehu Cadetship Programme: This six month programme is aimed at ***developing skills and providing employment opportunities*** to young adults in the region. 20 participants are given the opportunity to gain a Level 2 National Certificate in Employment Skills and the most promising Cadets are offered the chance to continue on to an Accelerator and then an Apprenticeship programme. All Cadets will be offered work brokerage assistance at the end of the ski season.
- working with local ***schools*** to provide ***affordable ski school instruction***: RAL offer heavily discounted (often 70% or more) ski experiences for schools and school children. Providing recreational activities for local children enables them to have a more positive outlet for their energies and increases awareness among older students of alternative work opportunities.

[4] As capital projects have fixed time periods, RAL's capital expenditure plan has been isolated by year for calculation purposes. The 'one-year' FTE requirements to complete the capital projects have been calculated for each respective year.

The future is about reducing seasonality and focusing on quality of service



The ski industry is highly seasonal. Future plans for RAL are oriented toward improving the ***quality and comprehensiveness of the product offering***, partly through expanding the off peak offering on week days during the ski season and other activities during the summer months. Examples of activities RAL is hoping to develop in the summer months include mountain-biking, zip-lining, and additional walks.

This strategy will benefit the local community by helping make better use of existing tourism infrastructure through boosting utilisation in off-peak times. Reducing the fluctuations between on and off peak times will also assist in providing ongoing (rather than seasonal) employment for the region and allow for businesses to be run more sustainably.

Introduction

Ruapehu Alpine Lifts Limited (RAL) commissioned this work to investigate the role the Ruapehu ski-fields play in the regional economy, and the wider impacts that RAL's operations and initiatives have on the local community.

Ruapehu Alpine Lifts Limited

Since its incorporation in 1953 as a public benefit entity, RAL has had a strong association with the mountain and the community. One distinction that sets RAL apart from commercial businesses is its business model. It does not pay out dividends to shareholders, but instead re-invests all profits into the maintenance and further improvement of facilities on the mountain.[5] It is therefore a company very much tied to the land, and is committed to functioning on the mountain in a way that is respectful of the mountain, provides a quality experience for visitors, and is sustainably managed and operated.

RAL does not pay out dividends to shareholders, but instead re-invests all profits into the mountain.

RAL was initially established with a focus of growing the Whakapapa ski-field but following the receivership of Turoa's operator in 2000, RAL was provided with approval from the Commerce Commission to acquire the assets and operations of the Turoa ski-field.

License to Operate

RAL is licensed by the Department of Conservation (DoC) to operate the Whakapapa and Turoa ski-fields. The existing Whakapapa license was issued in 1990 and has a 30 year term with one right of renewal for a further 30 years. The existing Turoa license was issued in 1977 and has a 45 year period, terminating in 2022. RAL was assigned the Turoa license in 2000.

As the incumbent licence holder, RAL has a preferential right to apply for renewal of these licenses. Although the existing licenses both have at least seven years until expiry, for capital planning purposes it is important that renewal rights are established early. Typically, asset based businesses need at least a 10-year time horizon to progress infrastructure investments.

Given RAL's plans for the next several years that aim to streamline and improve the quality of lift operations on both ski-fields, completing the licence renewal process is crucial to give the company the certainty it needs to proceed.

Tongariro National Park

The three mountain peaks of Ruapehu, Ngauruhoe and Tongariro were gifted to the people of New Zealand in 1887 by Ngāti Tūwharetoa. The gifted land was gazetted as a National Park, for the use of all people, and has since been used by many people for recreational purposes. Tongariro was the first national park in New Zealand and the fourth in the world. It is also a World Heritage area, so proclaimed for both its important Maori cultural value and its volcanic features.

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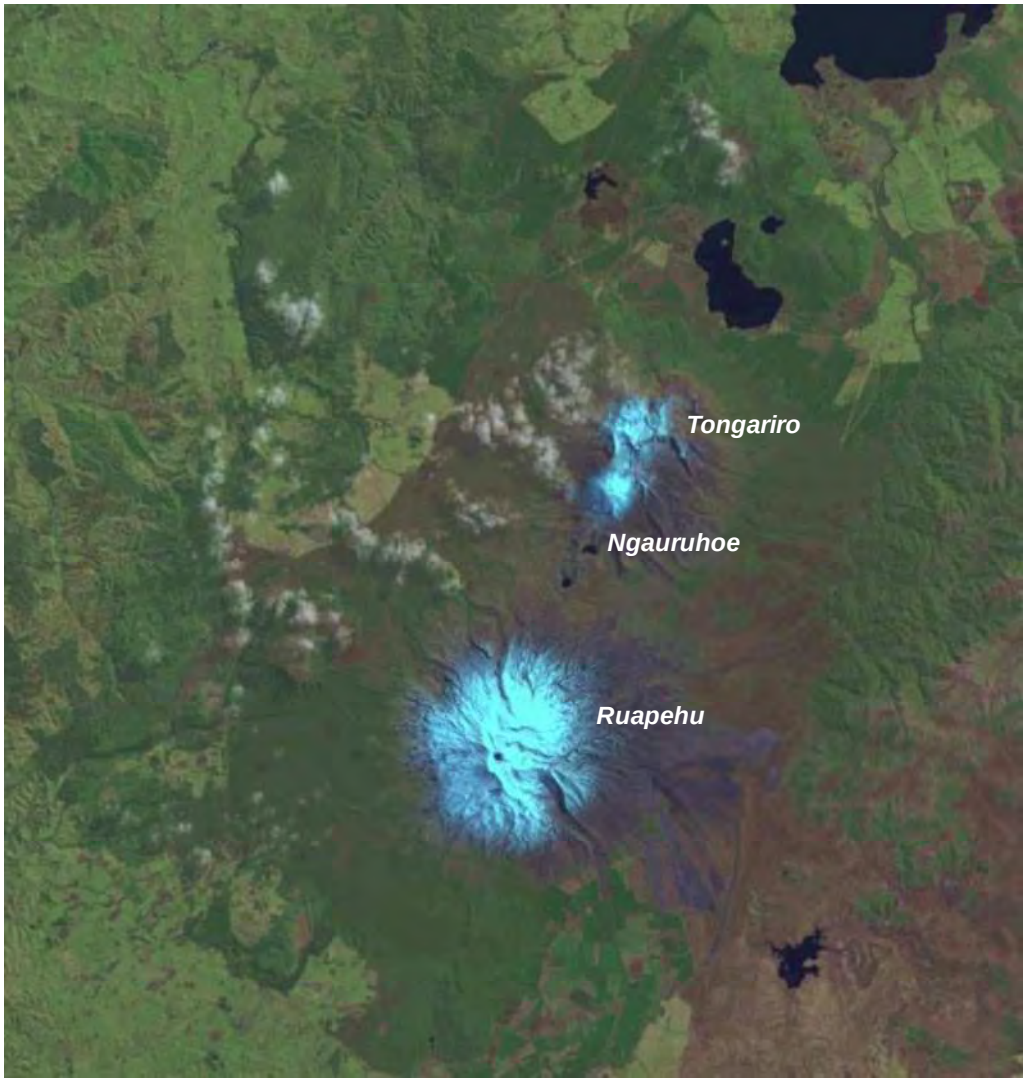
[5] Ruapehu Alpine Lifts Limited. (2013). *2013 Annual Report*.

Figure 1 shows the three peaks that dominate the Tongariro National Park.

Figure 1 The Tongariro National Park's three peaks

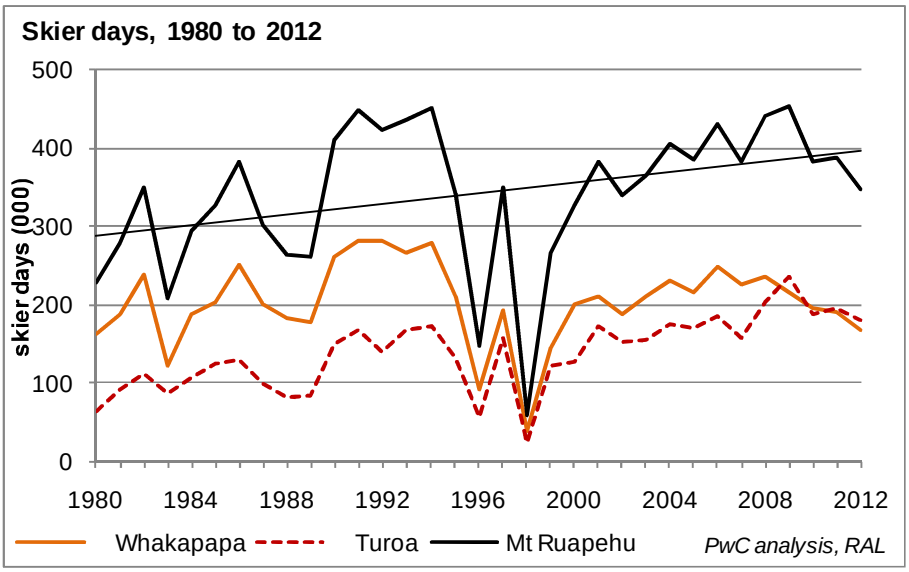


The Whakapapa and Turoa ski-fields

The scale of the ski slopes at Whakapapa and Turoa is one of the major attractions of the RAL product offering. It has enabled RAL to support the level of employment and GDP that is highlighted in this report.

This section provides an overview of the operations of the Whakapapa and Turoa ski-fields, which record around 400,000 skier days a year. This is up by approximately 100,000 a year from 1980 levels, or 0.9% per year on average. Changes in skier days since 1980 are highlighted in Figure 2.

Figure 2 Changes in skier days since 1980



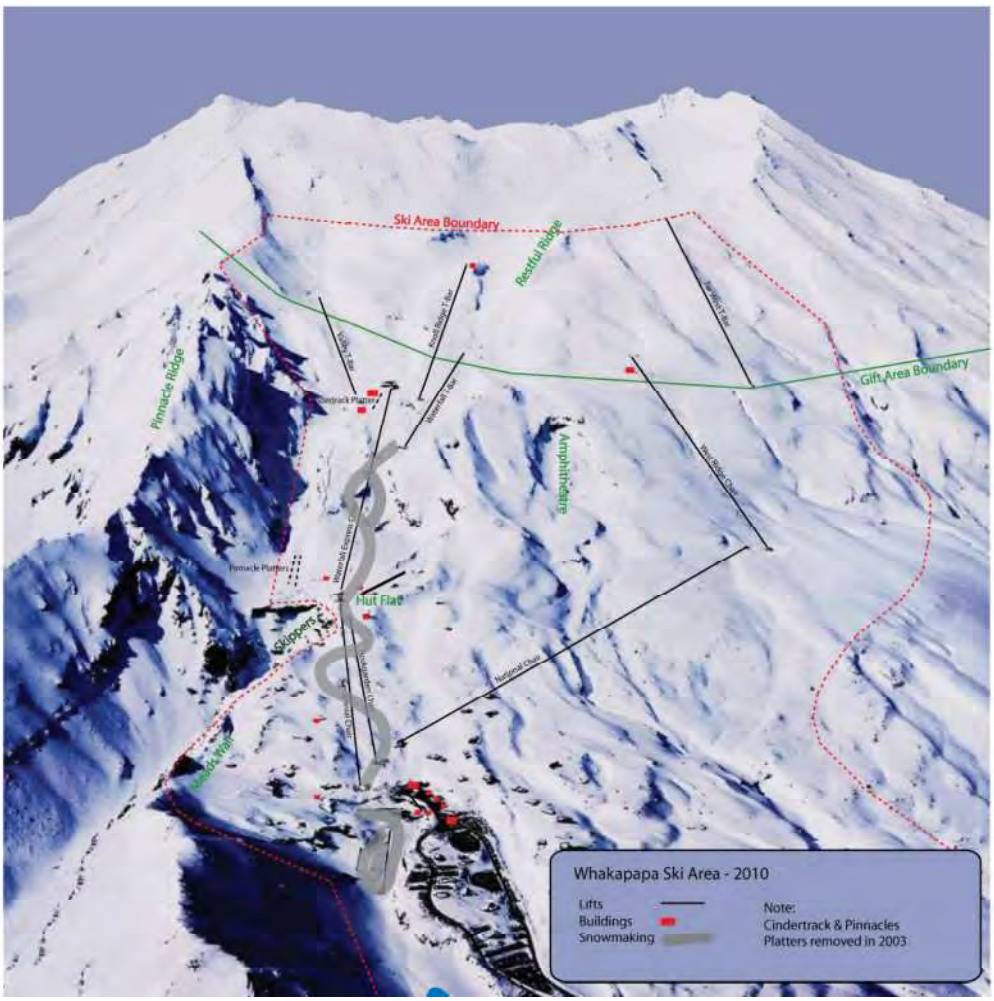
Total skier days have been fairly volatile over time, but with a general trend upward. In 1980, only around 227,000 skier days were recorded, but visitor numbers peaked at 350,000 in 1982 before falling again. Dramatic dips occurred in 1995 and 1996, when Mount Ruapehu erupted, and again in 1998, when winter snows did not arrive. Since these disturbances, skier days have made a solid recovery, with skier days over the last five years averaging 402,000.

Whakapapa

Whakapapa ski-field is located on the northern slopes of Mt Ruapehu. The ski-field is regarded as one of the best locations in New Zealand to learn how to ski and snowboard. The upper slopes of the ski-field are located within the area gifted by Ngāti Tūwharetoa. This gifted area includes considerable terrain suitable for intermediate and advanced skiers, which is a key attraction for many of the visitors to Whakapapa. The low gradient 'Happy Valley' ski-field is located at the base of the Whakapapa ski area and is renowned as being ideal for beginners. It is common for new skiers or snowboarders to spend a day in Happy Valley before moving further up the mountain to more challenging slopes.

Figure 3 shows the area of the Whakapapa ski-field. It highlights the boundaries of the ski-field, the locations of lifts and buildings, the gift area boundary, and snow making facilities.

Figure 3 Whakapapa ski-field area



Turoa

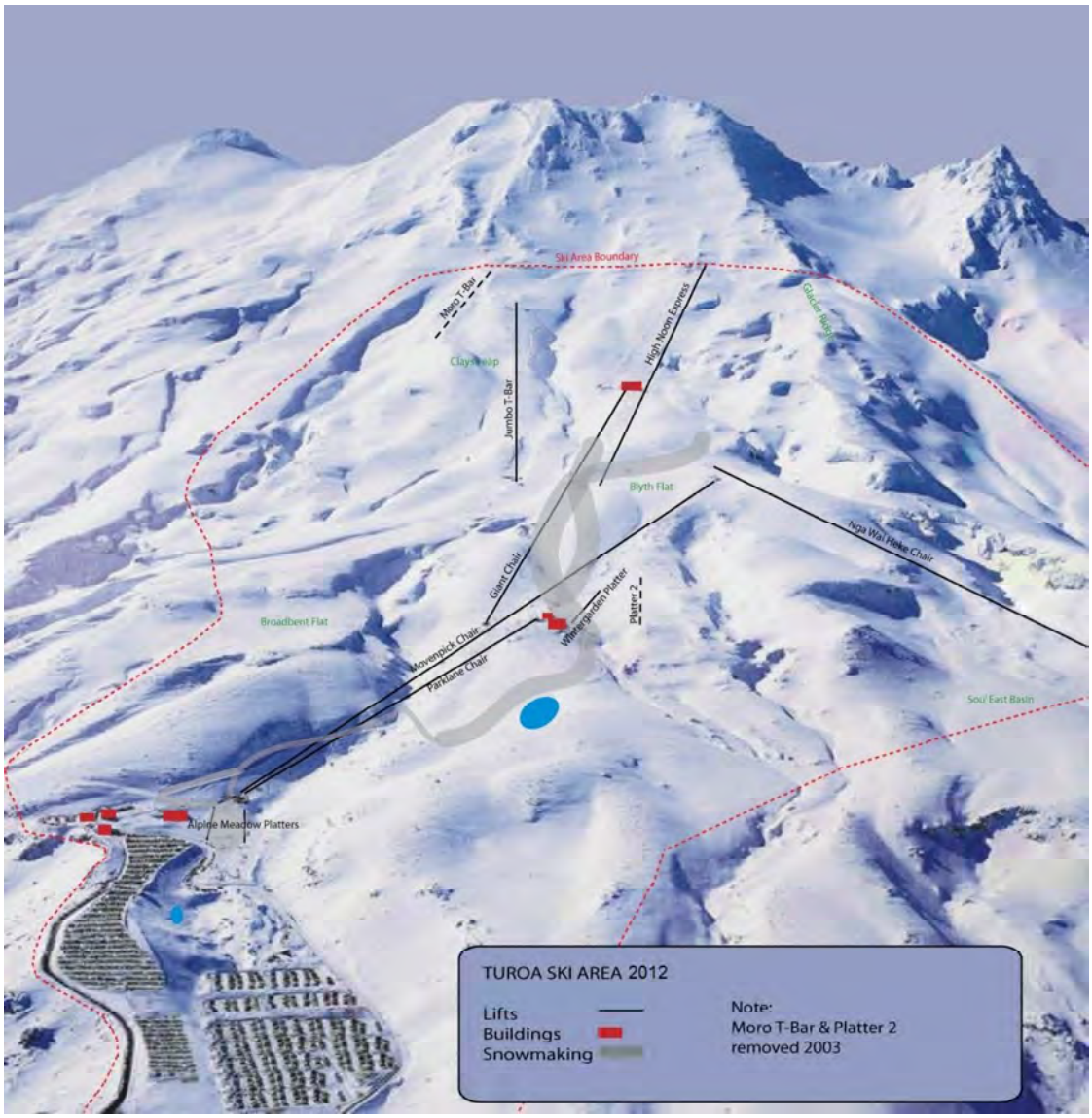
Turoa ski-field was commercially developed in 1978. Its location on the south western slopes of Mt Ruapehu means that is more affected by typical New Zealand weather conditions than Whakapapa but is less affected by sunlight. The terrain and wider area available at the Turoa ski-field makes it particularly appealing to snowboarders and more experienced skiers.

Following the receivership in 2000 of the previous operators, Turoa Ski Resorts Limited, the Commerce Commission authorised RAL to acquire the assets and operations of the ski-field. The Commission's decision pointed out that although RAL would be dominant in the North Island skiing market, the public benefits of the acquisition would be greater than any reduction in competition. The Commission highlighted in its decision that benefits of authorising RAL to run the ski-field would include cost savings as a result of reduced duplication, increased skier days from combined promotions, and the increased flow on economic effects for the Ruapehu region.[6]

Figure 4 shows the area of the Turoa ski-field. It highlights the boundaries of the ski-field, locations of lifts and buildings, and snow making facilities.

[6] Commerce Commission. (2000). *Media release: Commission authorises RAL to acquire Turoa*. 5 November 2000.

Figure 4 Turoa ski-field area



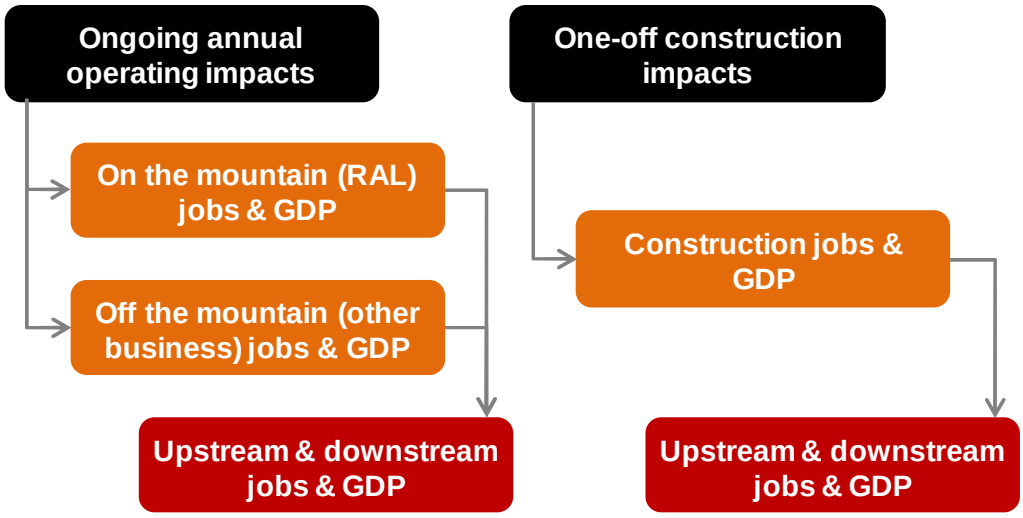
Ruapehu ski-field combined impacts

This chapter sets out the combined ***measurable*** economic impacts of the Whakapapa and Turoa ski-fields on the regional economy, defined as the Ruapehu and Taupo local authority areas.

The two chapters that follow disaggregate those combined impacts into the impacts of each ski-field. The final chapter of the report discusses some of the wider benefits to the community that are less easily measurable.

Operating the ski-fields has two major impacts, as shown in the black text boxes in Figure 5. The orange and red boxes are described in greater detail in the following two sections.

Figure 5 Ongoing annual and one-off construction impacts of ski-field operations



- ***Ongoing, annual*** impacts from running the ski-fields, which create jobs and Gross Domestic Product (GDP, or the value added to the economy by an activity).
- ***One-off*** capital projects that inject several million dollars into the local economy and that are over and above the business as usual operations of the ski-fields.

The following two sections outline the implications for employment and GDP of these ongoing and one-off impacts of ski-field operations.

Ongoing annual impacts of operations

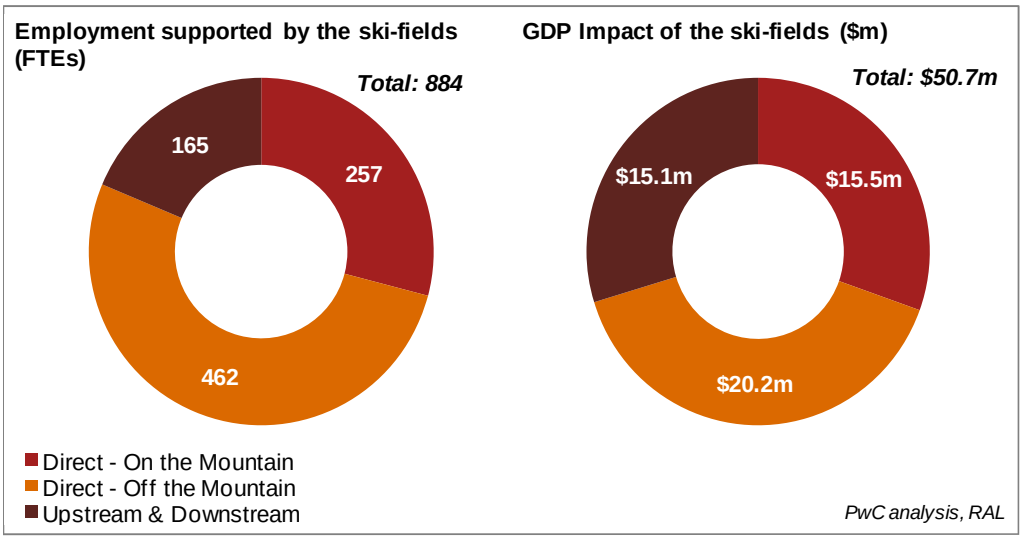
The ongoing operations of the ski-fields contribute significantly to the regional economy. This section highlights how the regional economy benefits from the ski-fields in terms of employment and GDP. The ongoing operations of the ski-field create jobs and GDP in three ways:

- the ***direct*** impacts of RAL's operations on employment and GDP ***on the mountain***: These are the jobs and GDP (mostly salaries and profits) generated by RAL operations on the mountain
- the ***direct*** impacts of ski-field operations on employment and GDP ***off the mountain***: The operation of the ski-fields brings thousands of tourists into the region each year, who also spend on accommodation, food, retail, and transport services they purchase from other businesses in the region.

- the ***upstream and downstream*** impacts of ski-field operations on employment and GDP ***on and off the mountain***: RAL and the other tourism-related businesses such as restaurants and petrol stations that benefit from skiers and snowboarders coming to the region purchase other goods and services from businesses in the region (upstream impacts). Workers employed by RAL and other tourism businesses spend their incomes on their own groceries and other goods and services (downstream impacts).

Figure 6 summarises the ongoing ***direct*** impacts of ski-field operations on and off the mountain, and the upstream and downstream impacts of these direct impacts in terms of both GDP and job creation.

Figure 6 Ongoing impacts of RAL's operations



The figure shows an estimated 257 FTEs (full-time equivalent workers) working on the mountain on an all-year round basis. In winter, the number of workers on the mountain is closer to 700, but because many of these jobs are seasonal, the calculations in this analysis have been converted into annual figures.

Because visitors come to the region for the ski-fields, 460 further FTEs are created off the mountain in tourism-related businesses like accommodation, restaurants, retail, and transport services. The key message here is that the bulk of the spending occurs off the mountain. In other words, RAL's operations on the mountain facilitate a lot more economic activity off the mountain.

This fact is further borne out by the estimated number of ***upstream and downstream*** jobs created by the ski-field operations, at more than ***160***. These are jobs across a wide range of industries where RAL and other tourism businesses buy their supplies, and where RAL and tourism workers spend their incomes.

In total, the ski-fields support approximately 880 FTEs on average on an ***ongoing basis***. This is equivalent to 16% of total employment in the Ruapehu District (one in six workers), or 4.1% of the total employment in the Ruapehu / Taupo region (one in 25 workers). Including upstream and downstream employment, the ski-fields support employment equivalent to that of the dairy farming industry across the Ruapehu / Taupo region.

The ski-fields support 890 FTEs on an ongoing basis, equivalent to 16% of total employment in the Ruapehu District or 4.1% of employment in the wider Ruapehu / Taupo region.

Figure 6 also shows that the ski-fields contribute a total of ***$51 million to regional GDP*** on an ongoing annual basis. Approximately 30% of this GDP is from upstream and downstream impacts, emphasising that the impacts of ski-field operations are felt widely across the region.

On the mountain: RAL operations

With nearly 400,000 skier days per year at Mt Ruapehu, operations on the mountain provide ***significant employment*** for the local community. Operating the ski-fields requires staff members that are skilled in managing the ski-fields, ski lifts, cafes, retail operations, office functions and the medical centre.

From a regional perspective, RAL is a major employer with an average of 257 FTEs employed throughout the year, or about ***4.5% of the total employment in the Ruapehu District***. During the ski season, this employment almost triples, reaching approximately 700 FTEs, or about ***12% of employment in the Ruapehu District***.

Despite New Zealand applicants only making up approximately 25% of seasonal job applicants at RAL, over half of the staff at RAL are New Zealander residents, as the company looks to employ locally first if possible. This means that RAL's operations provide employment opportunities to a significant proportion of the local population, enabling them to support their families and contribute more widely to the local community.

While RAL's focus is on providing employment to as many New Zealanders as possible, there are not enough local employees qualified to operate the ski-fields. As a result, international workers are employed during the ski season. These international workers support the local economy through passing on international expertise to local workers and through spending their incomes on local goods and services. Further, they help generate additional tax revenues for the New Zealand government as ski-field operations would otherwise have to be more limited due to a lack of sufficient numbers of suitably qualified people.

International workers support the local economy through passing on international expertise to local workers and through spending their incomes on local goods and services. Further, they help generate additional tax revenues for New Zealand as ski-field operations would otherwise have to be more limited.

RAL's operations are a major source of GDP for the region. On average over the last three years, RAL has directly contributed approximately ***$15.5 million per year to regional GDP*** from on the mountain operations. This $15 million is comprised of the salaries paid to staff and profits generated by the business. As all profits are reinvested on the mountain, RAL's GDP impacts are reinvested in the local economy, further supporting local jobs and businesses.

Approximately 60% of RAL's revenue comes from day and season ski passes. The remaining revenue is generated through retail and rental services, food and beverages, skiing lessons and through the operations of the medical centres. RAL's largest spending occurs on wages and salaries which comprise about 50% of RAL's expenditure on an annual basis. The second largest cost is electricity line and usage charges at approximately 9% of total costs. ***Approximately 75% of spending from RAL's operations stays within the local economy, supporting upstream and downstream employment and GDP***.

Off the mountain: Facilitating local tourism

In addition to the on the mountain benefits from RAL's operations, visitors to the mountain bring spending to the region that it would otherwise not capture. This spending includes off the mountain purchases of goods and services such as accommodation, food and beverages, transport and other retail products.

The increased demand in off the mountain purchases resulting from people visiting the mountain helps to support local employment above and beyond what is required directly on the mountain. ***Approximately 460 FTEs are supported on an ongoing basis*** as a result of off the mountain purchases. This is almost double the employment created from core RAL operations, highlighting the benefits to the wider region that would not occur if ski-field operations were absent or significantly reduced.

Upstream and downstream: Flow on impacts to the region

The economic impacts of the ski-fields go much further than direct on and off the mountain GDP and employment. Additional jobs and GDP are generated ***upstream and downstream*** as:

- ***supplies are purchased*** by RAL and other tourism-related businesses. This generates ***upstream*** employment and GDP in the regional economy as jobs are created at other businesses to support on and off the mountain tourism businesses.
- ***workers*** directly involved in the ski-field's operations spend ***their incomes*** on groceries, household items and other recreational activities within the region. This stimulates downstream job creation and GDP in the local community as spending that would otherwise not occur is circulated throughout the region.

In total, the upstream and downstream impacts support approximately ***160 FTEs and contribute $15.1 million of GDP*** to the local economy each year.

Looking to the future

Future plans for RAL are oriented toward improving the ***quality and comprehensiveness of the product offering***, rather than increasing peak visitor numbers. To protect the quality of experience and the sustainability of the mountain, there are no intentions to increase the peak volumes of skier days during the winter season. Instead, the aim is to modernise facilities and expand RAL's offering in off peak times such as week days during the ski season and during the summer months, as highlighted in Figure 7.

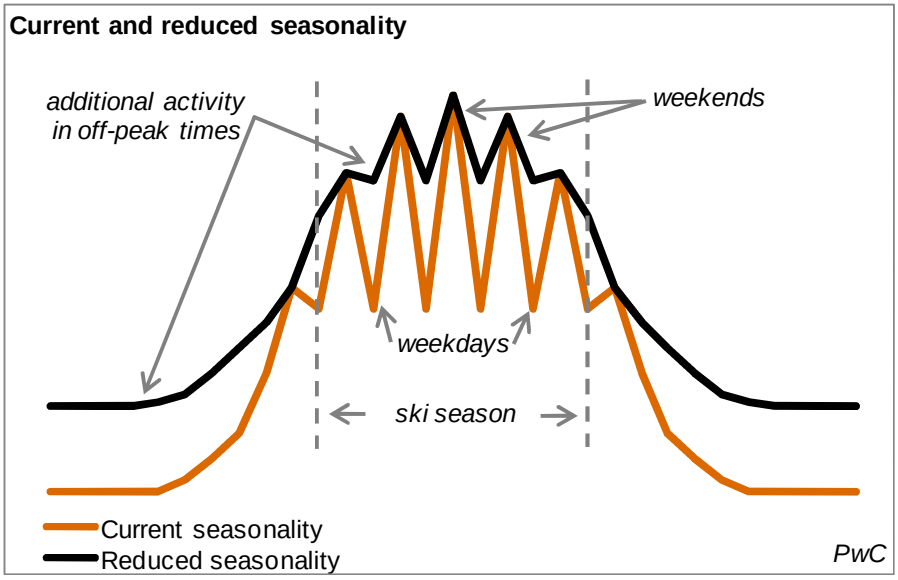
A key benefit to the local community of this strategy is that it will help make better use of existing accommodation and other tourism infrastructure. At present, tourism businesses have to put in place infrastructure to meet with the demands of peak-season weekends, while for most of the rest of the year, usage (and therefore return on investment) is low.

RAL plans to improve the quality and comprehensiveness of the product offering, rather than increasing peak visitor numbers. This will benefit the local community by helping make better use of existing tourism infrastructure capacity.

An example of this is RAL itself, which generates 85% of its revenues in just four months of the year. While visitor numbers across each of the two ski-fields peak at around 5,500 on a busy day, during the week visitor numbers average around 2,000 to 3,500. Visitor numbers are dramatically lower outside ski season and in times of inclement weather.

Reducing the fluctuations between on and off peak times will assist in providing ongoing (rather than seasonal) employment for the region and allow for businesses to be run more sustainably.

Figure 7 The goal is to reduce seasonality by filling out off-peak offerings



Any activity that RAL may seek to introduce in its licensed areas must be in line with the Tongariro National Park Management Plan. Examples of activities RAL is hoping to develop in the summer months include mountain-biking, zip-lining, and additional walks.

Whakapapa ski-field already issues 40,000 sightseeing passes a year to people who simply want to enjoy the views and are not skiers or snowboarders. RAL would like to grow this number to 150,000, partly through replacing some existing infrastructure with a chondola (combination gondola/ski-lift), which will help those who perceive ski-lifts to be less safe to feel safer in travelling up the mountain as sightseers.

One-off impacts of proposed ski-field developments

In addition to its ongoing annual maintenance activity, RAL has invested in large capital projects in recent years. These investments include the construction of Whakapapa's Knoll Ridge café which is shown in Figure 8 and the Ngā Wai Heke chairlift, which opened up 100 hectares of terrain on the Turoa ski-field. In 2013 alone. RAL invested $3m on five groomers and eight snow guns across Turoa and Whakapapa. These investments will allow RAL to more efficiently provide high quality snow cover at both ski areas.

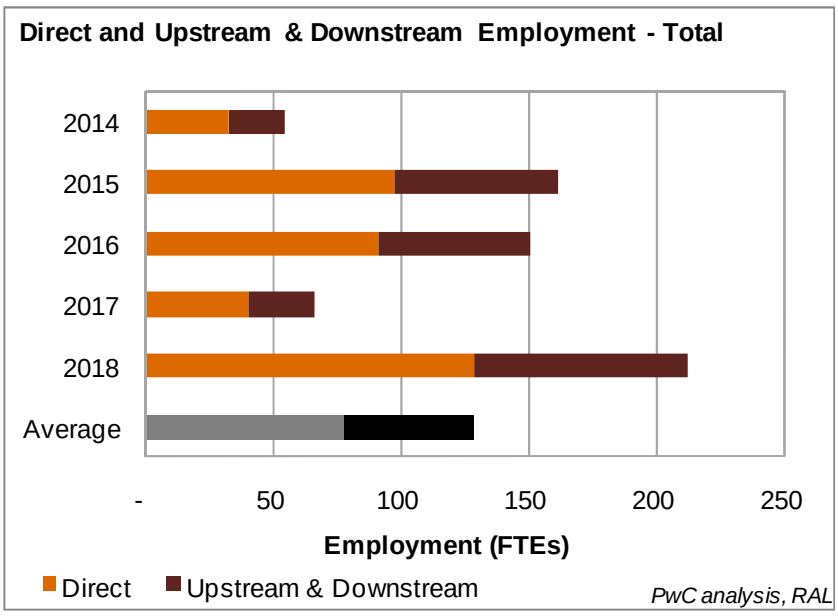
RAL has a significant capital expenditure programme planned, premised on remaining the licence holder for each of the Mt Ruapehu ski-fields. As noted above, all profits from RAL's operations are uniquely reinvested back into the mountain. This means that provided the business is run at a profit, a greater proportion of funds are available to be invested in ski-field developments than would be expected in other similar businesses.

Figure 8 Knoll Ridge cafe

RAL's planned developments are ***intended to reduce the total number of ski lifts*** on the mountain, and to focus on improving the quality of the ski lift experience. This will simplify the operations on the mountain, making operations more sustainable and efficient and minimising the visual impacts of human construction on the mountain.

RAL's capital expenditure plans for ski-field developments yield the following estimated impacts on local GDP and employment. The benefits presented are ***one-off benefits*** directly related to the investment in facilities on the mountain. Figure 9 shows the direct construction employment and upstream and downstream employment created as a result of the next five years of planned developments.

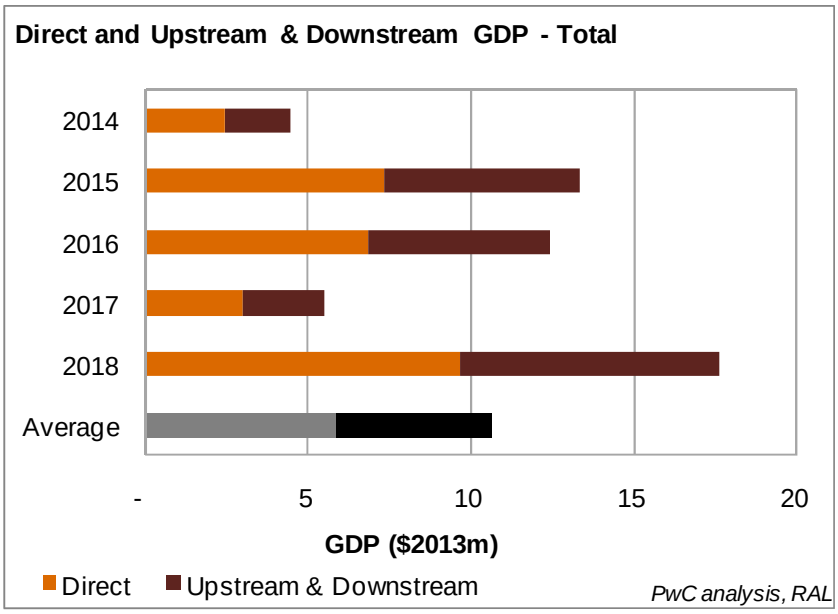
Figure 9 Development plans will support 640 one-year jobs over the next five years



The proposed new developments are expected to lead to the equivalent of over ***640 one-year FTEs*** when both direct and upstream and downstream impacts are considered. This peaks in 2018, where total one-year FTEs rise to 210 as the proposed Western Chondola lift is constructed at Whakapapa and the Sunset Express lift is constructed at Turoa. The ***average annual employment*** supported from developments is ***78 direct one-year FTEs and 51 upstream and downstream one-year FTEs***.

Figure 10 shows the direct and upstream and downstream GDP created as a result of the next five years of planned developments.

Figure 10 GDP impacts from construction over the next five years will be large



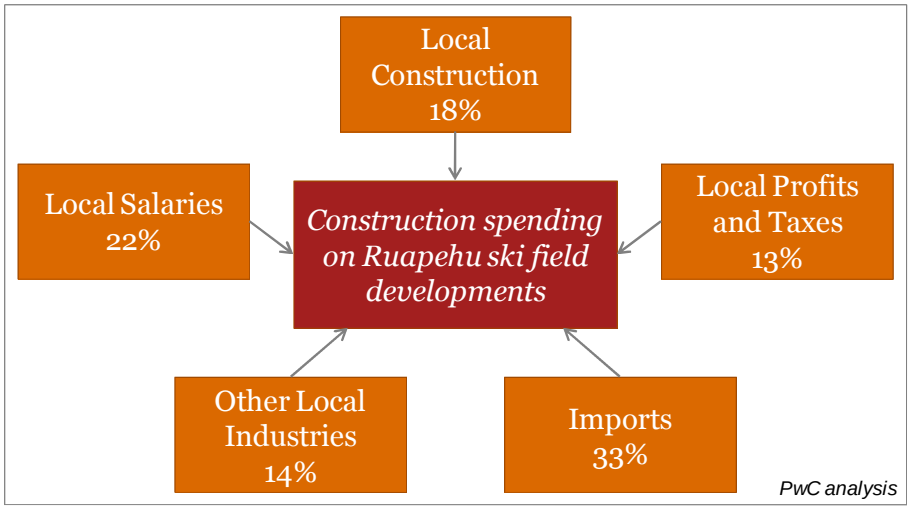
The total impact from the planned developments is ***$53m in GDP over the next five years***, or $11m per year on average. Figure 10 highlights that as with employment, GDP from capital projects peaks in 2018 with the development of the Western Chondola and Sunset Express.

In comparison to ongoing operations, spending on construction typically has a large number of upstream and downstream effects as the construction industry is relatively capital intensive. For every 10 FTEs employed on-site building the infrastructure, a further eight FTEs are employed upstream and downstream.

Given this fact, it is worth considering in greater detail how construction projects on the mountain affect the local economy as spending flows through a range of businesses. Inputs from a range of different (predominantly local) industries are used in ski-field developments.

We used input-output analysis to identify the upstream impacts of spending. Figure 11 shows that for every dollar that is spent on ski-field operations, 22% is spent on salaries paid to local employees, for example. Overall, as much as 67% of the spending on construction projects stays within the local economy and is circulated through local supply industries. The salaries earned by local residents are also spent on purchasing household goods and services, creating the type of local stimulatory impacts discussed above.

Figure 11 The majority of upstream impacts from developments are local



Whakapapa ski-field

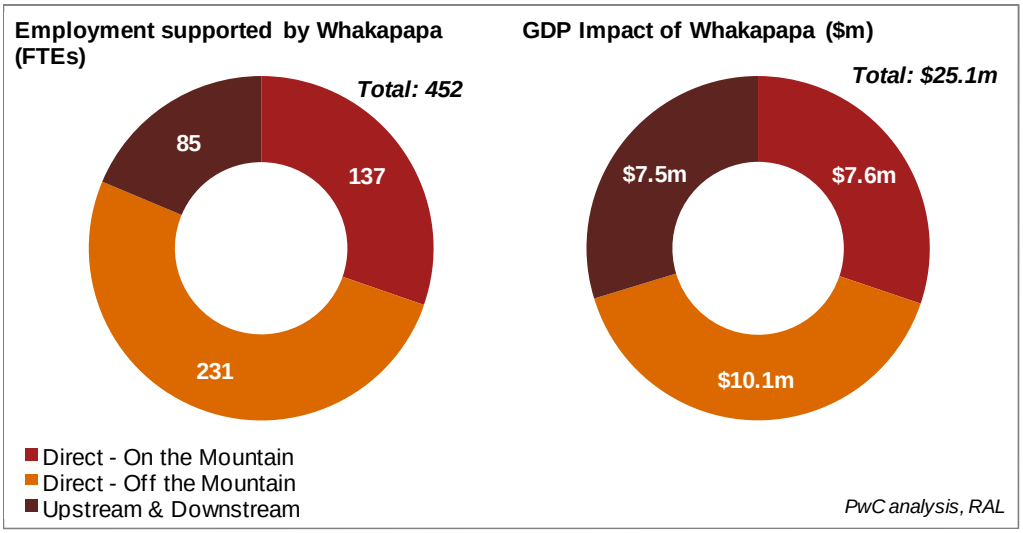
Whakapapa ski-field is located on the northern slopes of Mt Ruapehu and is considered one of the best locations in New Zealand to learn to ski and snowboard. With approximately 185,000 skier days per year, Whakapapa makes up approximately half of RAL's skier days and resultant operations. Since the late 1980s, Whakapapa ski area has operated some facilities during the summer months as well, which is a part of the business that RAL is looking to expand. RAL intends to make better use of infrastructure all year round without increasing peak visitor numbers.

Ongoing annual impacts of Whakapapa operations

The ongoing operations of Whakapapa contribute significantly to the regional economy on the northern side of the mountain. This section highlights the impact the Whakapapa ski-field has on supporting regional employment and regional GDP.

Figure 12 summarises the ongoing ***direct*** impacts of ski-field operations on and off Whakapapa ski-field and the ***upstream*** and ***downstream*** impacts of these direct impacts in terms of both GDP and job creation.

Figure 12 Whakapapa ski-field creates significant employment and GDP for the region



The Whakapapa ski-field directly employs ***nearly 140 FTEs*** on average at any one time on the mountain (with far higher numbers in winter and lower numbers in summer). The majority of visitors to the Whakapapa slopes come from Auckland and other regions north of Ruapehu such as Waikato and the Bay of Plenty although it also has many visitors from Wellington.

Visitors to Whakapapa spend more off the slopes than on the slopes. Purchases in areas such as accommodation and transport from these visitors support approximately ***230 FTEs above and beyond employment on the mountain***. A further 85 FTEs are employed in upstream and downstream activities.

On average over the last three years, the Whakapapa ski-field has directly contributed approximately $7.6 million per year to regional GDP from on the mountain operations. A further $10.1 million of GDP is generated as a result of direct off the mountain economic activity from visitors to the region.

The upstream and downstream impacts from Whakapapa's operations contribute a further $7.5m to the local economy on an annual basis.

The total employment generated in the local economy as a result of the Whakapapa ski-field is equivalent to 8.0% of total Ruapehu District employment.

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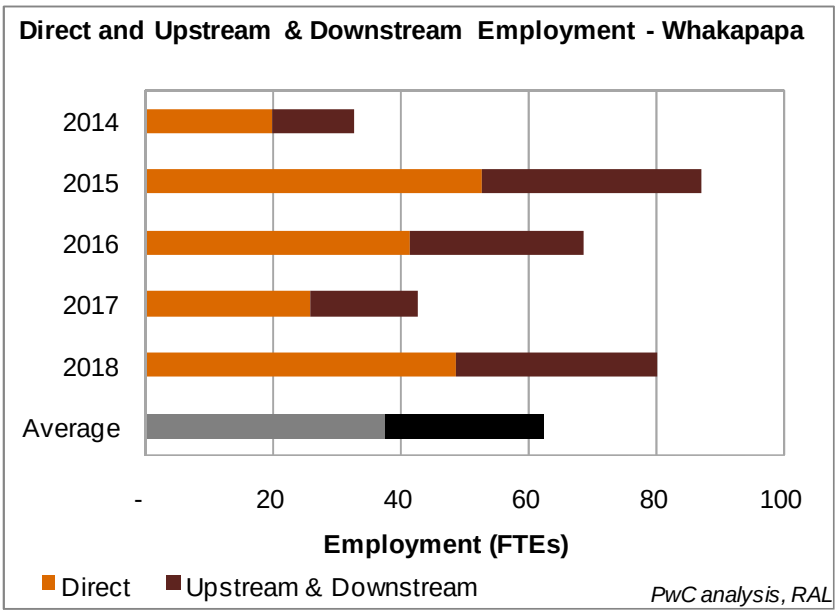
One-off impacts of proposed Whakapapa capital developments

The Whakapapa ski-field has already invested in several large capital projects in recent years, including the Knoll Ridge cafe. Future developments on the ski-field aim to make the mountain more sustainable, efficient, user friendly, and accessible to more people. Major plans include investing in the Knoll Ridge Express chair lift and a chondola, both of which will allow a wider range of users to access the mountain's facilities more easily and will help overcome perceptions by some potential ski lift users that the current, ageing lifts are less safe.

RAL's capital expenditure plans for Whakapapa developments yield the following estimated impacts on local GDP and employment. The benefits presented here are ***one-off benefits*** directly related to the investment in facilities on the mountain. Figure 13 shows the direct and upstream and downstream employment created as a result of the next five years of planned developments.

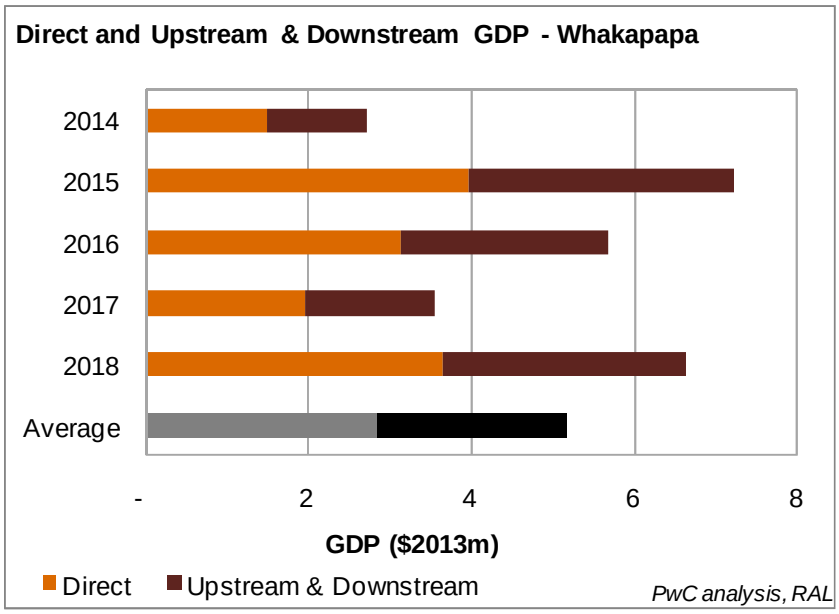
Figure 13 Developments will support over 310 one-year FTEs over the next five years



Proposed developments at Whakapapa are expected to lead to the ***equivalent of over 310 one-year FTEs*** when both direct and upstream and downstream impacts are considered. In line with the construction of the Knoll Ridge Express and Western Chondola, employment peaks at approximately 87 and 80 one-year FTEs in 2015 and 2018, respectively. The average employment supported by these capital projects is 38 direct FTEs and 25 upstream and downstream FTEs a year over the five years.

Figure 14 shows the direct and upstream and downstream GDP created as a result of the next five years of planned developments at Whakapapa.

Figure 14 Whakapapa developments will contribute $26m to local GDP over five years



The total impact on ***GDP*** from the planned developments at Whakapapa is ***$26m over the next five years***. On average this works out at $5.2m per year, with $2.8m contributed directly and $2.3m contributed from upstream and downstream impacts. As with employment, GDP impacts from the Whakapapa developments peak in line with the construction of the Knoll Ridge Express and Western Chondola in 2015 and 2018.

Turoa ski-field

Turoa ski-field is located on the south western slopes of Mt Ruapehu. This location means that it is more affected by typical New Zealand weather conditions than the Whakapapa ski area but is less affected by sunlight. The wide area and terrain of the Turoa ski-field makes it particularly appealing to snowboarders and more experienced skiers. With around 188,000 skier days per year, Turoa comprises approximately half of RAL's total skier days and resultant operations. RAL is planning to offer recreational experiences at Turoa during summer months, further facilitating commercial and community benefits during the off season period.

Ongoing annual impacts of Turoa operations

This section highlights the impact the Turoa ski-field has on supporting regional employment and GDP.

Figure 15 summarises the ongoing ***direct*** impacts of ski-field operations on and off Turoa ski-field and the ***upstream*** and ***downstream*** impacts of these direct impacts in terms of both GDP and job creation.

Figure 15 Turoa supports more than 430 jobs annually in the Ruapehu / Taupo region

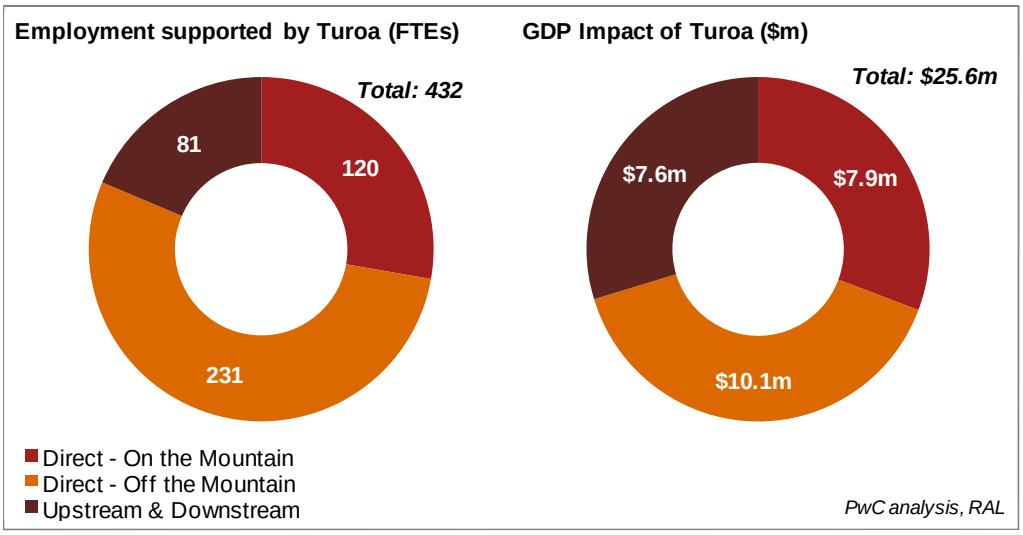


Figure 15 shows that Turoa ski-field employs an average of ***120 FTEs throughout the year on the mountain*** (with far higher numbers in winter and lower numbers in summer). The majority of visitors to Turoa are from Auckland, Wellington, and areas to the south / south west of the Ruapehu region such as Taranaki, Wanganui and Manawatu. Approximately ***230 additional FTEs are supported from off the mountain purchases*** by visitors who live outside of the Ruapehu / Taupo region. The ski-field also supports a further ***80 FTEs*** across supplier industries and as local tourism workers spend their incomes.

The total of more than 430 FTEs supported locally because of the Turoa ski-field is the equivalent to around 8% of total employment in the Ruapehu District.

The total of more than 430 FTEs supported locally by the Turoa ski-field is the equivalent to around 8% of total employment in the Ruapehu District.

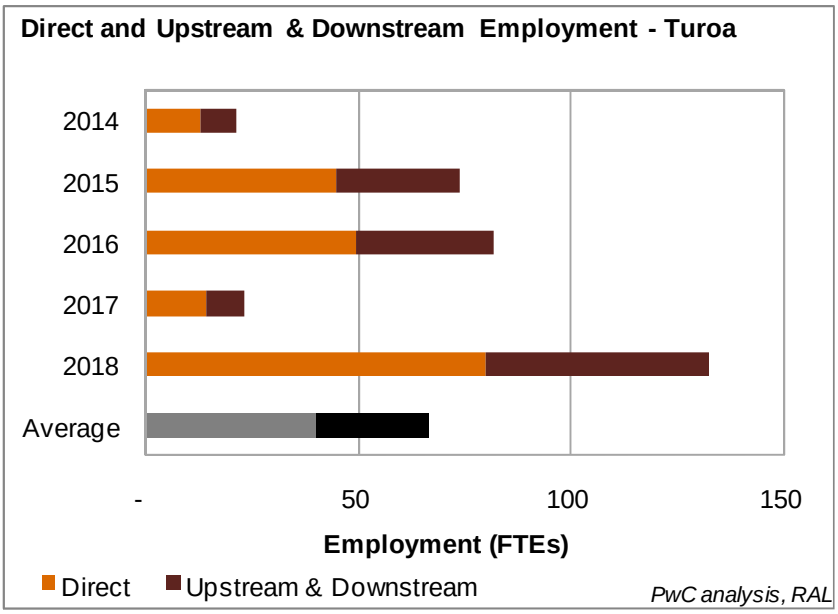
On average over the last three years, the Turoa ski-field has directly contributed approximately ***$7.9 million*** per year to regional GDP from on the mountain operations. A further ***$10.1 million of GDP*** is generated as a result of direct off the mountain economic activity from visitors to the region. Additionally, the ***upstream and downstream*** impacts from Turoa's operations contribute approximately ***$7.7 million*** to the local economy on an annual basis.

One-off impacts of proposed Turoa capital developments

Future developments on the Turoa ski-field aim to replace outdated ski lifts, develop a new chalet at Blyth Flat and extend the areas where snow-making machines can be used.

RAL's capital expenditure plans for Turoa developments yield the following estimated impacts on local GDP and employment. The benefits presented here are one-off benefits directly related to the investment in facilities on the mountain. Figure 16 shows the direct and upstream and downstream employment created as a result of the next five years of planned developments.

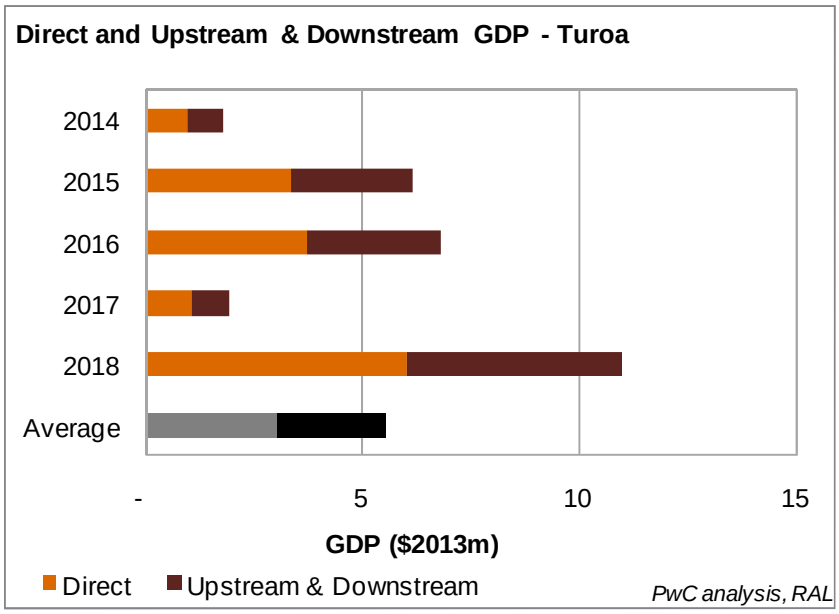
Figure 16 Developments will support over 330 one-year FTEs in the next five years



The proposed developments at Turoa are expected to lead to the equivalent of ***over 330 one-year FTEs*** when both direct and upstream and downstream impacts are considered. In line with the construction of the Sunset Express chairlift and snowmaking reticulation extensions, construction related employment peaks in 2018 at approximately 132 one-year FTEs. The average employment supported from developments is ***40 direct FTEs and 26 upstream and downstream FTEs*** on an ongoing basis over the next five years.

Figure 17 shows the direct and upstream and downstream GDP created as a result of the next five years of planned developments at Turoa ski-fields.

Figure 17 Turoa developments will contribute $28m to local GDP over five years



The total impact on GDP from the planned developments at Turoa is $***28m over the next five years***. On average, this works out at approximately $5.5m per year with $3.0m contributed directly and $2.5m contributed from upstream and downstream impacts. GDP impacts from the Turoa developments peak in 2018.

Wider benefits across New Zealand

Earlier chapters have shown the impact RAL has on the local region through creating and supporting employment directly, through creating the opportunity for other tourism-related businesses to benefit, and through supporting upstream and downstream businesses. RAL plays a wider role in the local economy in a number of other, less easily quantified ways. This chapter outlines some of the wider benefits that RAL has on the local region through its continued operations and specific programmes.

Commitment to providing local employment opportunities

Because of the seasonality of the ski industry, RAL experiences significant variation in the number of staff employed throughout the year. On average throughout the year, RAL employ approximately 257 FTEs. During the ski season, RAL's employment nearly triples with approximately 700 FTEs employed from locally and abroad.

Despite New Zealand applicants only making up approximately 25% of total job applicants at RAL, over half of the staff at RAL are New Zealand residents. This preference for employing locally is emphasised by RAL's interview policy whereby ***local applicants are guaranteed an interview***. This means local applicants are given the best possible opportunity to secure a job during the application process.

RAL's interview policy guarantees local applicants an interview, giving them the best possible opportunity to secure a job during the application process.

Ruapehu Cadetship Programme: Developing work skills

In advance of the 2014 ski season, RAL is introducing the Ruapehu Cadetship Programme, a six month programme aimed at ***developing skills and providing employment opportunities*** to young adults in the region. The programme will give participants experience in the workforce and provide the opportunity to gain a Level 2 National Certificate in Employment Skills.

The programme will incorporate both classroom based learning and structured on-site job experience in order to develop the skills of the participants. RAL will deliver the programme in-house and are currently working with Skills Active, an Industry Training Organisation, to develop the educational component of the programme. For applicants who require prior learning before the programme, Te Wānanga o Aotearoa offers a Level One Certificate in Employment Skills to prospective applicants to the Cadetship programme. RAL has indicated that they will provide assistance in this programme through facilitating classroom based learning.

The Cadetship will allow young people in the region to raise their skill levels, enabling them to be more capable not only on the ski-field, but also in future employment elsewhere and in the wider community. Through providing additional qualification opportunities, it is anticipated that the programme may also provide a bridge for some students to continue on to higher level studies and to roles with greater responsibilities and skill levels at RAL.

Figure 18 outlines the Cadetship's three stage process. The programme selection process is followed by a process to select those who will gain work experience on the mountain. Following completion of the programme, participants will receive work brokerage support from RAL. This will assist

participants to find employment with other local businesses or find further training which may best suit the individual.

Figure 18 Ruapehu Cadetship Programme processes

Programme Selection Process	Season Selection Process	Work Brokerage
April – May	***June – October***	***November – March***
• Ready for workplace – preparation	• Attendant position – employment based training	• Further employment – consolidation of learning

Programme selection – workplace preparation

All applicants for the programme will receive an introduction to the Cadetship programme and basic employment skills training. This will cover areas such as the development of interview skills, CV writing skills and basic PC skills.

Season selection

The Cadetship programme will take in up to ***20 individuals a year for on-site work experience***. This experience will be aimed towards building the skills of participants in areas such as health and safety, customer service and communications.

Work brokerage

As longer term employment at RAL is not always feasible due to the seasonal impacts of the ski season, RAL cannot employ all participants on a year round basis. However, the skills that participants gain from their training and work experience under the Cadetship programme sets them up to apply for any full year vacancies at RAL or to enter other areas of employment. RAL will assist participants to find further employment opportunities and/or training, once the programme is completed.

In addition to training around 20 Cadets each year, the programme will provide work brokerage assistance to participants at the end of the ski season.

The future of the Cadetship Programme

RAL plans to extend the Cadetship programme to include second and third year intakes. Those who successfully complete the programme will be able to re-apply in future years for more tailored skill development and work experience. The indicative three year programme is outlined in Figure 19.

Those who successfully complete the first year programme will be able to apply for the ***Accelerator Programme*** in their second year. This programme will take approximately eight individuals and provide training in skills development in broader areas such as driver licensing and avalanche expertise. This programme will be run over the 20 week ski season and will also provide opportunities to gain a Level 3 Certificate in Employment Skills.

Following the completion of the Accelerator Programme, RAL intends to offer approximately three individuals full year employment on an apprenticeship basis. Apprenticeships will be tailored to provide experience in more specialised areas.

Figure 19 Three year Cadetship Programme outline

Cadetship *Year One*	***Accelerator Programme*** *Year Two*	***Apprenticeships*** *Year Three*
• Up to 20 places • March – April (6 weeks) for ready for workplace preparation • May – October (24 weeks) for General Attendant role	• Up to 8 places • June – October (20 weeks)	• Up to 3 active apprenticeships • June – October (20 weeks)
Level 2 National Certificate in Employment Skills	***Level 2 / 3 National Certificate***	***Level 3 / 4 National Certificate***
Workplace Preparation • Introduction to programme • Cultural Significance • Introduction to RAL • Basic numeracy & literacy • Resume building • Interview skills • Basic PC skills • Personal appearance & hygiene ***General Attendant*** • Health & Safety • Employment relationship obligations • Working in a team • Tourism industry of NZ • Customer Service • Communication skills in work environment	***Skilled Attendant*** • Driver Licensing • Rental Technician • Avalanche Level One • NZSIA Stage One • Hospitality/Tourism • Cook • Trade Assistant • Senior Attendant / Entry Level Supervisor	***Apprenticeship / Career*** • Heavy Equipment • Workshop Technician • Avalanche Level Two • NZSIA Stage Two • Hospitality/Tourism • Chef • Trade Apprenticeships • Front line Supervisor

Providing affordable experiences for schools

RAL further supports the local and wider community through offering heavily discounted ski experiences for schools and school children. On weekdays, RAL discounts lift passes for schools by 70%, making skiing more affordable for the average school student. The cost is halved again for local schools, enabling local students to ski more often and be more involved in recreational activities.

Providing recreational activities for local children enables them to have a more positive outlet for their energies and also increases awareness among older students of alternative work opportunities available in the region, working at the ski-fields.

Appendix A: Methodology

This chapter explains how the key assumptions and values used in the economic analysis were derived.

Direct employment and GDP on the mountain

RAL provided estimates of average employment (in FTE terms) for the last three years for overall operations. Employment estimates for Turoa and Whakapapa were split based on the salaries bill for each ski-field.

GDP generated on the mountain was estimated by summing EBITDA and salaries. This included a calculation whereby overhead (corporate) salaries and operating costs were split across the ski-fields based on their shares of revenue generated.

Direct employment and GDP off the mountain

To estimate direct employment and GDP off the mountain, an estimate of spending by visitors (domestic out-of-region visitors and international) to the ski-fields needed to be made.

Visitor spending

A number of steps were undertaken to calculate these figures:

- Total expenditure estimates for domestic and international tourists for the Lake Taupo and Ruapehu Regional Tourism Organisations (RTOs) for 2012 were sourced from the Ministry of Business, Innovation and Employment (MBIE).[7]
- Estimates of how international and domestic visitors spend in the two RTOs across six different expenditure categories (Accommodation; Food and beverage serving services; Other passenger transport; Other tourism products; Retail sales - fuel and other automotive; and Retail sales – other) were taken from the same source.
- Estimates of total visits by day-trippers and over-nighters for each RTO for 2012 were sourced from the Ministry of Economic Development (now part of MBIE).[8]
- It was assumed that day-trippers spend no money on accommodation, and that they spend two-thirds as much on food and beverages as over-nighters. This yielded a differentiated dollar value for spending by day-trippers and over-nighters across the accommodation and food and beverage categories of spending, while spending was assumed to be the same regardless of type of visit across the other four spending categories. This analysis yielded spend per day values of $82 and $134 for day-trip and over-night domestic visitors respectively. The figures for international visitors were $128 and $238 respectively, once a CPI adjustment to take spending from 2012 dollars to 2013 dollars was applied.
- RAL has visitor demographics data information that shows where visitors come from. It was assumed that visitors from Northland, Auckland, and the South Island were all over-night visitors. Half of all visitors from Taranaki, Wanganui, Waikato, Hawkes Bay, and Gisborne were assumed to be over-nighters. Two-thirds of visitors from Wellington/Manawatu were assumed to be over-nighters as the vast majority of these visitors will be from the more distant Wellington rather than

[7] MBIE. (2012). *Regional Tourism summary: Lake Taupo RTO* and *Regional Tourism summary: Ruapehu RTO.*

[8] Ministry of Economic Development. (2010). *New Zealand Regional Tourism Forecasts 2010-2016: Ruapehu RTO* and *New Zealand Regional Tourism Forecasts 2010-2016: Lake Taupo RTO.*

the nearer Manawatu. This analysis suggested that 74% of domestic visitors to the ski-fields spend the night in the region, while 26% do not. This is quite a conservative estimate of over-night visitors given that RAL's annual Customer Demographics survey suggested only 17% of visitors were day-trippers. However, other options in the survey allowed for the answer that visitors stayed in a "private house". This could mean a rented bach or their own private accommodation, so to err on the side of conservatism, the value of 74% for over-night visitors was used.

- For international visitors, it was conservatively assumed the mix of day-trippers and over-nighters was in line with the profile of international visitors to the region overall. i.e. 68% over-nighters.
- Further adjustments to the average daily spending per ski-field visitor were required. These visitors undertake some of their spending on retail and food and beverage on the ski-fields. Therefore, an allowance for this spending was removed from the daily spend values to avoid double-counting. It is important to note that spending on ski-passes was not deducted from the total spend per person, as it was assumed that the relatively large amounts spent on ski-passes (around $46 per visit to the ski-fields) indicates that these visitors would have significantly higher overall spend figures.
- The final spend per visitor numbers calculated were $109 per skier day for domestic visitors, and $192 per skier day for international visitors.
- RAL's Customer Demographics survey estimates the number of skier days by international and domestic visitors. An estimated 9.6% of visits are from regional visitors (36,000 skier days per year), 82.8% are from other parts of New Zealand (309,000), and 7.5% are international (28,000). Because spending by regional residents creates no new economic activity in the region, they were excluded from the analysis.
- Multiplying the number of skier days for international and domestic (out of region) visitors by their spend per day estimates yielded a ***total visitor spend of around $39 million per year***.

Converting visitor spend to GDP and employment

The $39 million in spending is split across four spending categories – accommodation, food and beverage, retail, and transport. Appropriate direct value-added to output and employment to output multipliers (scaled to 2013 dollars where appropriate) were applied to the estimates of spending for each of these four sub-categories of spending. This yielded ***direct employment*** in these four industries of ***462 FTEs***, and ***direct GDP of $20.2 million***.

These values were split across Turoa and Whakapapa based on the estimated number of domestic (out of region) and international skier days at each (with data from the Customer Demographics survey).

Direct construction employment and GDP from planned capital projects

RAL provided capital expenditure plans for the two ski-fields for the next five years. Appropriate direct value-added to output and employment to output multipliers (scaled to 2013 dollars where appropriate) were applied to these capital expenditure numbers to estimate the direct construction employment and GDP likely to be generated in the Ruapehu / Taupo region over the next five years at an aggregate and ski-field level.

Upstream and downstream employment and GDP

Multiplier analysis using multipliers for the Ruapehu / Taupo region were used to estimate the flow-on impacts for each of the three direct impacts estimated above.

On the mountain

Because actual operations revenue and expenditure was available for RAL, it was possible to select a set of multipliers for an industry that closely resembled the actual operations on the mountain. The closest match was the *Travel agency and tour arrangement services industry*. Applying Type II employment and GDP multipliers (scaled to 2013 dollars where appropriate), yielded upstream and downstream impacts of on the mountain operations at an aggregate and ski-field level.

Off the mountain

Input-output analysis had already been used to estimate the direct employment and GDP impacts of the ski-fields in stimulating demand for off the mountain tourism-related goods and services. Type II multipliers were applied to the direct estimates disaggregated by category of spending and ski-field to estimate upstream and downstream impacts of this activity.

The upstream and downstream impacts presented in the ongoing annual operations donut charts in this report are the total for on and off the mountain upstream and downstream impacts.

Capital projects

As with the other upstream and downstream calculations, Type II multipliers were applied to estimate the employment and GDP created as construction firms working on the mountain purchased from their suppliers, and as construction workers spent their incomes.

More on multiplier analysis and input-output tables

The multipliers used in this analysis were sourced from Butcher Partners Limited. Multipliers are a tool used by economists to estimate the impact of expansion in one industry taking into account indirect impacts on industries that supply inputs (upstream effects) and induced impacts on industries that benefit downstream of the expansion. Multipliers are an often misunderstood (and, in cases, misused) tool, as their correct interpretation requires acknowledgement of the assumptions that form the basis of their derivation.

Critical assumptions implicit in the use of multiplier analysis include:

Availability of resources

Multipliers can only be interpreted as estimating additional economic activity (whether indirect or induced) where there are sufficient available unused productive resources (labour and capital) to facilitate an expansion in activity.

Where resources are already fully employed, any indirect and/or induced activity calculated by multipliers should be interpreted as a diversion of economic activity, not an increase in activity.

No change in relative prices

The impacts estimated by multipliers are only valid under the assumption that relative prices (of goods, services and resources) are unchanged. If one price changes relative to another, this may induce behavioural changes which will not be captured by the standard multiplier analysis.

Constant returns to scale production technology

Multipliers are most accurate only when additional production is undertaken given existing production function (technology) coefficients. In other words, units of output are produced using the same inputs of raw materials, labour and capital in the same proportion as has been used in the production of previous units of output. Therefore, multipliers are appropriate to assess the impact of small, marginal shocks, not large-scale shocks.

Appendix B: Disclaimer

This economic impact assessment has been prepared for Ruapehu Alpine Lifts Limited. It has been prepared solely for this purpose and should not be relied upon for any other purpose.

To the fullest extent permitted by law, PwC accepts no duty of care to any third party in connection with the provision of this Report and/or any related information or explanation (together, the "Information"). Accordingly, regardless of the form of action, whether in contract, tort (including without limitation, negligence) or otherwise, and to the extent permitted by applicable law, PwC accepts no liability of any kind to any third party and disclaims all responsibility for the consequences of any third party acting or refraining to act in reliance on the Information.

Our report has been prepared with care and diligence and the statements and opinions in the report are given in good faith and in the belief on reasonable grounds that such statements and opinions are not false or misleading. In preparing our report, we have relied on the data and information provided by Ruapehu Alpine Lifts Limited and others as being complete and accurate at the time it was given. The views expressed in this report represent our independent consideration and assessment of the information provided.

No responsibility arising in any way for errors or omissions (including responsibility to any person for negligence) is assumed by us or any of our partners or employees for the preparation of the report to the extent that such errors or omissions result from our reasonable reliance on information provided by others or assumptions disclosed in the report or assumptions reasonably taken as implicit.

We reserve the right, but are under no obligation, to revise or amend our report if any additional information (particularly as regards the assumptions we have relied upon) which exists at the date of our report, but was not drawn to our attention during its preparation, subsequently comes to light.

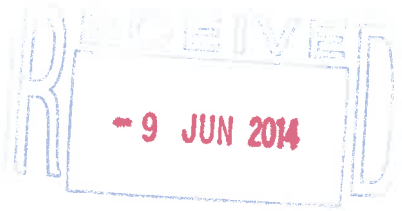
This report is issued pursuant to the terms and conditions set out in our Contract dated 26 September 2013.

Appendix 6

Letter of support from RMCA

Ruapehu Mountain Clubs Association

C/- P. O. Box 26354,
Epsom 1344,
Auckland.



To Whom it May Concern

The Ruapehu Mountain Clubs Association is an Association which advocates for and on behalf of the 52 Tramping and Skiing Clubs which have Licenses to operate Lodges within the Tongariro National Park for the benefit of their Members. We represent the combined membership of these Clubs numbering approximately 20,000 people.

We understand that Ruapehu Alpine Lifts Limited -(RAL) is applying to renew the Licenses they currently have to operate the Turoa and Whakapapa Skifields within the Tongariro National Park. We are aware that the renewal of the Licenses is a matter which requires appropriate consideration.
We wish to state on behalf of our Member Clubs that we fully support and endorse the renewal of RAL's Licenses to operate the Turoa and Whakapapa Skifields for a number of reasons.

We are aware the RAL has been the operator of the Whakapapa Skifield for many years and more recently the operator of the Turoa Skifield. Naturally our members are very frequent users of RAL's Skifield facilities in both areas. As RAL is the operator of the two major skifields in the North Island, our members Clubs need the skifields to keep operating for the benefit of our Members and all visitors to the area. We would also support the fact that RAL needs certainty of continuation of their License to remain commercially viable, and to continue to develop the Skifields to the high standards required for safety of all visitors and workers on the Skifields, and to continue to provide the high level of service and maintenance of facilities which is required to keep existing customers and develop new ones.

We have always been supportive of initiatives taken by RAL which we consider would be beneficial to our Members, such as these applications, and have always taken the trouble to provide written submissions where required to support them, for example in the Eastern Terrain Renewal Project being the most recent one.

We are of the view that RAL has a high degree of understanding and implementation of the following matters;

- The significant status of the area as a National Park and a World Heritage Area
- Safety of the visitors to the area and Skifield workers.
- Give proper emphasis to the care and maintenance of the Mountain environment
- Wherever possible employing local people
- Respect for the cultural values of the Tangata Whenua and the cultural significance of the Mountain.

If our Association or Member Clubs can give any other information which will be of benefit to RAL's application please contact our Association immediately.

Yours faithfully,

A-M Josephine Bouchier
President
Ruapehu Mountain Clubs Association

Appendix 7

IUCN Reports

WORLD HERITAGE NOMINATION - IUCN SUMMARY

421 TONGARIRO NATIONAL PARK (NEW ZEALAND)

Summary prepared by IUCN (August 1990) based on the original nomination submitted by New Zealand and other sources. This original and all documents presented in support of this nomination will be available for consultation at the meetings of the Bureau and the Committee.

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1. LOCATION

Situated in the Tongariro and Wanganui regions on the central North Island volcanic plateau. The boundary encircles the Ruapehu, Ngauruhoe and Tongariro mountain massif at an altitude of 500-1550m. An outlier, 3km north of the main park area and separated from it by Lake Rotoaira, includes Lake Rotopounamu, Mount Pihanga and Mount Kakaramea. The total area of the park is 79,596ha.

2. JURIDICAL DATA

Established on 23 September 1887 by deed of gift when Paramound Chief Te Heuheu Tukino of the Ngati Tuwharetoa people presented 2,630ha of the central volcanic area to the government. The area was constituted as the nation's first National Park in 1894 and gazetted in 1907 with an area of 25,213ha. By 1922, when the Tongariro National Park Act was passed, the size of the park had increased to 58,680ha. In 1975 the outlying Pihanga Scenic Reserve (5,129ha) was added, and further additions were made in 1953 and 1962. The current enabling legislation is the National Parks Act, 1980.

3. IDENTIFICATION

The park lies at the southern end of a discontinuous 2,500km chain of volcanoes which extends north-east into the Pacific Ocean. The volcanoes in the park, which are predominantly andesitic in composition, fall into two group son the basis of location, activity and size. Kakaramea, Tihia and Pihanga volcanoes and their associated vents, domes, cones and craters form the northern group. These lie on a 10km north-west to south-east axis and have not been active for some 20,000-230,000 years. The active group extends for some 20km along a south-west to north-east axis, with a width of some 10km and comprises Tongariro, Ngauruhoe and Ruapehu volcanoes. The Tongariro complex consists of recent cones, craters, explosion pits, lava flows and lakes superimposed on older volcanic features. In addition to these major features, the park contains other extinct volcanoes, lava and glacial deposits and a variety of springs. Extensive glaciation up to 14,700 years ago eroded both Tongariro and Ruapehu and glacial valleys with terminal and lateral moraine formations are present. Glaciers are currently restricted to Mount Ruapehu although all are less than 1km in length after several decades of retreat.

Habitats are diverse, ranging from remnants of rain forest to nearly barren icefields. From the lowest altitudes to 1,000m in the west and north, about 3000ha of once wide spread mixed Podocarp-broadleaf rain forest is present. At higher altitudes beech forest occurs. Scrublands cover some 9,500ha.

Tussock shrubland and tussockland cover extensive areas in the north-west and around the mount Ruapehu massif at about 1200-1500m. The highest altitudes in the park are dominated by gravelfields and stonefields. The vertebrate fauna is restricted mainly to birds although native mammals are represented by short-tailed bat and long-tailed bat. More than 56 bird species have been recorded in the park including brown kiwi and North Island fern bird.

The area has been occupied by Maoris since they first arrived from Polynesia and ethnic mythology identifies the mountains in the park with 'tupuna' or god-like ancestors. Until the land was given to the nation in 1887 the area was occupied by the Tu Wharetoa tribe.

4. STATE OF PRESERVATION/CONSERVATION

The park is valued for its landscape, cultural importance, ecological diversity, as breeding habitat for a number of threatened species and for recreation. The 1990 management plan was prepared by the Tongariro National Parks and Reserves Board and approved by the National Parks and Reserves Authority. The 1980 National Parks Act provides all protective, legal and administrative mechanisms for the park. The park is classified into natural environment, two wilderness areas, two pristine areas and three amenity service areas. Skifield development has been restricted and developments are prohibited above 1,500m in the Tongariro and Ngauruhoe area, and above 2,250m on Ruapehu Sport hunting of introduced red deer, goats and pigs is permitted under license and programmes to eradicate lodgepole pine, heather and broom are undertaken. The relative paucity of wildlife stems from the nationwide problem of introduced species. Furthermore, native flora have been reduced by exotic herbivores such as red deer and possum. Invasive lodgepole pine threatened to convert native communities into forest and has been a particular problem in the eastern Rangipo desert area.

The park receives up to 800,000 visitors annually, mostly during the ski season.

5. JUSTIFICATION FOR INCLUSION ON THE WORLD HERITAGE LIST

The Tongariro National Park Nomination, as presented by the Government of New Zealand, provides the following justification for designation as a World Heritage property:

a) Natural property

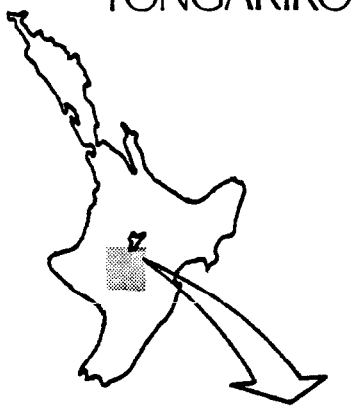
(i) Earth's Evolutionary History. The park lies at the south-western terminus of a Pacific chain of volcanoes aligned along a major tectonic plate boundary.

(ii) Ongoing geological processes. The park's volcanoes contain a complete range of volcanic features. The related ecological succession of plant communities is of special scientific interest.

(iii) Superlative natural phenomena and natural beauty. The main volcanic peaks are outstanding scenic features of the island.

b) Cultural property

Criteria for cultural property are being assessed by ICOMOS.



LOCALITY PLAN TONGARIRO NATIONAL PARK

MAP 1 JULY 1987

WORLD HERITAGE NOMINATION - IUCN TECHNICAL EVALUATION

421 TONGARIRO NATIONAL PARK (NEW ZEALAND)

1. DOCUMENTATION

(i) IUCN Data Sheet

(ii) Consultations: D. Pitt, C. Burns, J.W. Cole, D. Given, R. Milne, H. Eidsvik, G. McSweeney, P.H.C. Lucas, K. O'Connor, B. Jefferies, D. Thom, B. Houghton, New Zealand Government Officials.

(iii) Additional literature consulted: Tongariro National Park Management Plan 1990. Department of Conservation 3 Vols.

(iv) Site visits: January 1986, August 1987, March 1990 (J. Thorsell).

2. COMPARISON WITH OTHER AREAS

Within the Neozealandia Biogeographical Province there are 145 protected areas, including several areas which comprise the SW New Zealand World Heritage nomination. These are on the South island and their features are not comparable with Tongariro which is exclusively a volcanic landscape on the North Island. Within New Zealand, Tongariro stands out as the protected area with the greatest diversity of volcanic features.

Within the South Pacific region Tongariro is the south west terminus of the Pacific "ring of fire", a series of volcanoes that extends virtually around the Pacific Ocean. These include Fujiyama in Japan, Krakatau in Indonesia, the Kermadec Islands and Mt. St. Helens in the USA. The distinctions of Tongariro are that it is fully protected, it is one of the most active, it is especially high in scenic values and it displays an exceptionally wide range of volcanic features. Distinctions can be made with the World Heritage site on the island of Hawaii which is a shield volcano (rather than one occuring at the edge of a continental plate), is much larger in size, more continuously active and the site of a more active research programme.

There are numerous other parks in the world with volcanic features, including Timanfaya in Spain, Kilimanjaro in Tanzania, Sangay in Ecuador, Katmai in Alaska and the Hawaiian Volcanoes. There are also 500-600 active volcanoes worldwide including 11 in the Philippines and 77 in Indonesia, but it is difficult to make "value" comparisons among these as all have a certain uniqueness. Certainly Tongariro's species composition and Maori cultural aspects add distinctive elements not found elsewhere (for instance in the Hawaiian Volcanoes).

3. INTEGRITY

Within New Zealand's National Park there are high standards of legislation, staffing and management planning. The park is well protected and managed and enjoys a high level of public support. By legislation, the Ngati Tuwharetoa tribe is guaranteed participation in policymaking and management planning. There are serious problems with introduced plants (exotic heather and contorta pine) and lesser problems with introduced animals and control programmes attempting to deal with these have been cut back due to reduced budgets. The man-made developments in the park (skifields and attendant facilities) are restricted to a specified area amounting to almost 10% of Mt. Ruapehu or 3% of the entire park. The revised management plan addresses the issue of ski area expansion and rehabilitation of other disturbed areas.

4. ADDITIONAL COMMENTS

The park has important historical and cultural values which complement the natural features although the latter appear more visible and dominant and the centennial of the park in 1987 saw this reinforced with Maori ceremonial and dedication of cultural exhibits in the park's new visitor centre. Built in traditional Maori style, this reflects management's efforts to reinforce the cultural dimensions of the park. The evaluation by ICOMOS on the cultural component will outline these values and provide additional rationale for assessing the site. It is recognised, however, that results of the World Heritage Committee's 1987 request for a theme study on the cultural values of the Pacific are not yet available.

5. EVALUATION

With its volcanic cones, lakes and glacier, Tongariro is certainly the most spectacular volcanic site in the Southwest Pacific. Its scenic aspects merit its inclusion on the World Heritage List on Criteria (iii) exceptional natural beauty. It also meets criteria (ii) as an outstanding site for on-going geological processes. Tongariro is important to several branches of the physical sciences (e.g. seismology, geology, geochemistry, and pedology) as sites for teaching and research. It is also important for botanists and zoologists as a habitat for threatened and rare species and for study of the effects of invasive plants and animals. The Maori cultural aspects add further to its significance and reinforce its natural values.

On volcanological grounds, Tongariro's case for World Heritage status is based on three main features. First, it is the most frequently active composite volcano in the world. This activity allows observation of volcanic processes in action and the park is thus an ideal natural laboratory. Second, the crater lake on Ruapehu is unique due to its high frequency of eruption and its glacial setting. It is one of two crater lakes (together with Kelut in Java) regarded as classic case studies of interaction of magma and lake water which often produce lahars (fluid mixtures of volcanic debris and water).

Finally, Tongariro contains deposits from the most powerful volcanic eruption ever known at nearby Lake Taupo. The park protects these deposits for scientific research on this dramatic event of 1800 years ago.

During a field mission to the area in August 1987 by several members of CNPPA, strong concern was expressed on two aspects of management of the area that relate to conditions of integrity:

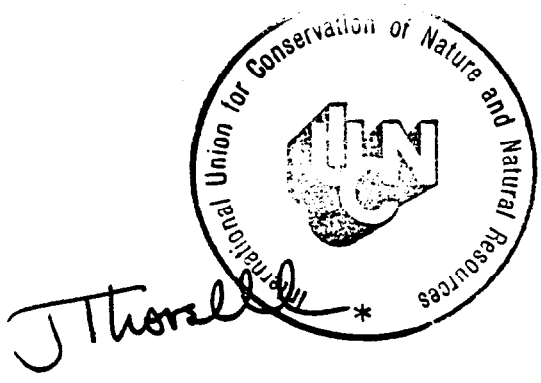
a) The extent of the ski development on Mt. Ruapehu, the current plans for expansion, and the impact of these developments on cultural values and "image" of the park. This is compounded by new proposals for slope grooming and snowmaking which would have substantial impacts on scenic values and stream hydrology. It has been suggested that the ski fields of Tongariro would be very susceptible to effects of global warming which would require and upward movement of skiing activity.

b) The extent to which the cultural values of the park are given prominence in the new management plan and the level of involvement by the local Maori people.

In the preparation of the new management plan for the park, both these issues have been resolved in a manner that protects the natural values of the park and enhances the cultural and spiritual values associated with the Maori people. Skifield development is constrained within specific zones which have detailed plans and measures to place limits on their expansion and operation. A management goal to promote appreciation of cultural values has been added and extensive discussions with the Maori Trust Board have resulted in a plan that better reflects their concerns and traditions.

6. RECOMMENDATIONS

The new management plan for Tongariro adequately covers the concerns of the Bureau expressed in 1987. The park should now be inscribed on the World Heritage List. The Committee may wish to commend the New Zealand authorities for recognising the need to limit inappropriate recreational development and their efforts to strengthen the appreciation of the cultural values of Tongariro in the new management plan.



NEW ZEALAND-**Tongariro** National Park

NEW ZEALAND

NAME **Tongariro** National Park

IUCN MANAGEMENT CATEGORY II (National Park)
X (World Heritage; criteria ii and iii)

BIOGEOGRAPHICAL PROVINCE 7.01.02 (Neozealandia)

GEOGRAPHICAL LOCATION Situated in the **Tongariro** and Wanganui regions in the middle of North Island, on the central North Island volcanic plateau. Lake Taupo lies a few kilometres to the north-east and the nearest towns are Turangi, Waiouru and Ohakune. Auckland is some 330km to the north-east and Wellington is about 320km to the south-west, by road, respectively. The boundary encircles the Ruapehu, Ngauruhoe and **Tongariro** mountain massif at an altitude of 500-1,550m. The north island main trunk railway to the east and the National Park-Rangipo road to the north and north-east delimit the park. An outlier, 3km north of the main park area and separated from it by Lake Rotoaira, includes Lake Rotopounamu, Mount Pihanga and Mount Kakaramea. 38°58'-39°25'S, 175°22-175°48'E

DATE AND HISTORY OF ESTABLISHMENT Established on 23 September 1887 by deed of gift when the Paramount Chief Te Heuheu Tukino of the Ngati Tuwharetoa people gave 2,630ha of the central volcano area to the government. The summits of **Tongariro**, Ngauruhoe and Ruapehu were constituted as the nation's first National Park in October 1894 and gazetted in 1907 with an area of 25,213ha. By 1922, when the **Tongariro** National Park Act was passed, additional land had increased the area to 58,680ha. In 1975 the outlying Pihanga Scenic Reserve (5,129ha) was added, and several other additions from 1925 to 1980 have increased the extent of the park. The current enabling legislation is the National Park Act 1980 (Johnson, 1976; Debreceny, 1981; Atkinson, 1981; DLS, 1986).

AREA 79,596ha

LAND TENURE Government

ALTITUDE The park rises from 500m to the summit of Mount Ruapehu, at 2,797m, the highest mountain in North Island.

PHYSICAL FEATURES The park lies at the southern end of a discontinuous 2,500km chain of volcanoes which extends north-east into the Pacific Ocean. This chain corresponds with the destructive, orogenous subduction of the Pacific Oceanic plate beneath the Indian-Australian continental plate. The volcanoes in the park, which are predominantly andesitic in composition, fall into two groups on the basis of location, activity and size. Kakaramea, Tihia and Pihanga volcanoes and their associated vents, domes, cones and craters form the northern group. These lie on a 10km north-west to south-east axis and have not been active for between 20,000 and 230,000 years. Glacial activity 100,000-14,000 years ago has rounded the profiles

of this group. The active group extends about 20km along a south-west to north-east axis, with a width of some 10km and comprises **Tongariro** (1,968m), Ngauruhoe (2,290m) and Ruapehu (2,797m) volcanoes, the three great volcanic mountains of central North Island. The **Tongariro** complex comprises recent cones, craters, explosion pits, lava flows and lakes superimposed on older volcanic features (Williams, 1985). Two kilometres to the south lies Mount Ngauruhoe, a 2,290m composite andesite cone of interleaved pyroclastic material and lava. Fumaroles in the summit crater frequently discharge hot gas and steam, and the cone, which may be as little as 2,500 years old, is still building. Violent ash eruptions usually occur at nine year intervals whilst more progressive 'strombolian' lava fountaining occurred in 1954, creating a 60m high cone on the western side of the original 400m-diameter multiple crater. Seven explosion craters, formed by violent contact between rising magma and groundwater, lie directly between Mount Ngauruhoe and the southern Mount Ruapehu massif. The largest two now constitute the Upper and Lower Tama lakes. The south-east of the park is dominated by Mount Ruapehu, which rises to a 350ha complex of ridges, peaks, cones and active and inactive vents. Volcanic activity commenced approximately 500,000 years ago and tephra deposits indicate a peak of activity 10,000-14,000 years ago (Williams, 1985; Debreceny, 1981). The current active vent lies beneath Crater Lake at an elevation of 2550m on Mount Ruapehu. This has a diameter of 500m, a depth of more than 180m and a temperature of 20-40°C. The water has a pH of 0.8-1.5 and is rich in dissolved minerals; consequently the upper reaches of the Whangaehu outflow are devoid of fish and most invertebrates. Minor hydrothermal eruptions in the lake are not uncommon, whilst more major events such as those in June 1969 and April 1975, may lead to destructive mudflows (Williams, 1985).

In addition to these major features, the park contains other extinct volcanoes, lava and glacial deposits and a variety of springs. Freeze-thaw and freeze-heave action and major radial drainage systems feeding the **Tongariro**, Wanganui and Whangaehu rivers has led to rapid erosion of the unconsolidated ash and rock of **Tongariro** and Ruapehu mountains. Extensive glaciation up to 14,700 years ago eroded both **Tongariro** and Ruapehu and glacial valleys with terminal and lateral moraine formations are present. Glaciers are currently restricted to Mount Ruapehu and after several decades of retreat all are less than 1km in length. The steep upper slopes of the major volcanoes comprise lava flows interbedded with ash and coarser volcanic debris, whilst on gentler slopes both lava and mudflows are covered by ash. Marine mudstone and sandstone of Miocene-Pliocene origin form two hilly areas in the west. Rhyolitic pumice deposits, a legacy of the massive Taupo eruption about 1,800 years ago, occur in the northern and eastern two-thirds of the park at depths frequently in excess of 30cm. The eruption destroyed much of the forest cover in the park. Dessicating westerly and southerly winds have inhibited vegetation development to the east of Mount Ruapehu and a largely barren desert-like environment of dark reddish-brown sand and ash has formed (Johnson, 1976). Soils are generally weathered andesitic ash, being dark sandy loams and loamy sands to the west; drainage is frequently poor. Above 1,100m ash, gravel and unconsolidated stonefields are predominant. With the exception of some recent alluvial flats, soil fertility throughout the park is low (Atkinson,

1981).

CLIMATE The north-east to south-west orientation of the mountains results in most precipitation from the prevailing westerly winds falling on the windward side of the park. The north and west has 1800-3500mm annual rainfall, whilst in the south and east there may only be 1100mm per annum. Above 1,200m altitude annual precipitation probably exceeds 3500mm. The 1931-1960 mean annual temperature at 600m was 9.6°C-10.1°C and 7.1°C at 1,100m. Absolute minimum and maximum temperatures recorded are -10°C and 25°C, respectively. Ground frosts occur throughout the year, particularly in winter, and above 2,000m there are permanent snowfields and ice (Atkinson, 1981; Debreceny, 1981).

VEGETATION Vegetation in the park is influenced by altitude, occurrence of Taupo pumice, burning, drainage and erosion (Atkinson, 1981) as well as substrate instability, grazing by herbivores and rainfall distribution. Habitats are diverse, ranging from remnants of rain forest to nearly barren icefields. From the lowest altitudes to 1,000m in the west and north, about
3,000ha of once nation-wide mixed Podocarp-broadleaf rain forest occurs. This is dominated by Podocarpus hallii, P. dacrydioides, Weinmannia racemosa, Libocedrus bidwillii and there are numerous epiphytic ferns, orchids and fungi. At higher altitudes beech forest occurs with red beech Nothofagus fusca, silver beech N.menziesii and mountain beech N. solandri var cliffortioides in pure stands totalling over 5,000ha, or with L. bidwillii from 750m to 1,530m and covering 12,730ha. Widespread death of mature beech has occurred on Ruapehu, possibly due to the pathogenic fungus Sporothrix sp., spread by the pinhole beetle Platypus sp. but regeneration is occurring. Scrublands featuring Leptospermum ericoides, L.scroparium, Phyllocladus aspleniifolius, Dracophyllum longifolium, Rhacomitrium lanuginosum introduced heather Calluna vulgaris, dwarf beech, podocarps and others, in a variety of associations, cover some 9,500ha. Tussock shrubland and tussockland cover extensive areas in the north-west and around the Mount Ruapehu massif at about 1,200-1,500m. Dominant species include Chionochloa rubra, inaka Dracophyllum longifolium, D. recurvum, Empodisma minus, Schoenus pauciflorus, heather and the grasses Festuca novaezelandiae and Poa coloensoi. These formations cover some 15,000ha and are generally the highest communities with complete ground cover. The highest levels in the park are dominated by gravelfields and stonefields which are very unstable and characterised by cycles of vegetation build-up and breakdown. Typical species, covering about 16,500ha are D. recurvum, Podocarpus nivalis, Gaultheria colensoi, Rytidosperma setifolium, P. colensoi and Raoulia albosericea, some of which occur in the Rangipo desert. An additional 10,350ha, from 1,700m to 2,020m, supports isolated individuals of parahebes Parahebe sp., gentian Gentiana gellidifolia, buttercup and others although above 2,000m the only obvious plants are crustose lichens. A number of other formations exist, although often limited in area, including shrub, grass, bracken, sedge, rush and moss communities (Atkinson, 1981). A species list and vegetation map is given in Atkinson (1981).

FAUNA The vertebrate fauna is restricted mainly to birds although native

mammals are represented by short-tailed bat Mystacina tuberculata and long-tailed bat Chalinolobus tuberculatus. More than 56 bird species have been recorded in the park including brown kiwi Apteryx australis, kaka Nestor meridionalis, blue duck Hymenolaimus malacorhynchus and North Island fern bird Bowdleria punctata vealeae. All the above species are considered by New Zealand authorities to be within IUCN's vulnerable category (DLS, 1986; Johnson, 1976). Banded dotterel Charadrius bicinctus and New Zealand falcon Falco novaezeelandiae are also present. The native fauna, however, has been seriously depleted by species introduced prior to 1922. These include rat Rattus rattus, stoat Mustela erminea and cat Felis catus as predators, and herbivores such as rabbit Oryctalagus cuniculus, hare Lepus sp., brush-tailed possum Trichosurus vulpecula, and red deer Cervus elaphus. Although much effort has been devoted to eradicating exotics, they continue to pose a threat to native flora and fauna (Atkinson, 1981; Johnson, 1976).

CULTURAL HERITAGE The area has been occupied by Maoris since they first arrived from Polynesia and ethnic mythology identifies the mountains in the park with 'tupuna' or god-like ancestors. Until the land was given to the nation in 1887, the area was occupied by the Tu Wharetoa tribe. Early European attempts to settle in the area and introduce sheep farming commenced in 1856. However, due to economic and agricultural difficulties, these activities ceased by the 1920s (Debreceny, 1981).

LOCAL HUMAN POPULATION With the exception of Whakapapa village, which largely comprises tourist facilities, there are no permanent settlements within the park. The village is the subject of Volume Three of the current management plan (DoC, 1990c).

VISITORS AND VISITOR FACILITIES The annual number of visits to the park increased from an estimated 90,000 in 1960 to over 500,000 in 1975 and 800,000 more recently (DoC, 1990a). Overseas visitors contribute only 3% to the number of vistors, and there are two distinct peak seasons: ski-ing from July to late October and a mid-December to mid-February summer vacation period. Accommodation is available at Whakapapa, Iwikau and Turoa villages and at camp sites in the park. Rural highways entirely surround the park and a number of roads and tracks enter it. Foot trails give access to several areas, including the Mount Tongariro complex, and encircle both Ngauruhoe and Ruapehu massifs. Major recreational activities include walking, climbing, hunting, fishing, and ski-ing, for which more than a dozen chairlifts and a number of mountain huts are provided. In excess of 300,000 people per annum use the Whakapapa skifield (Williams, 1985). Visitors to the Whakapapa ski-field spent $7.7 million within the region during the 11 week 1985 ski season, and the park in general is a significant contribution to the local economy. The park headquarters at Whakapapa has an information centre and guided walks are given (Johnson, 1976; Debreceny, 1981).

SCIENTIFIC RESEARCH AND FACILITIES The first comprehensive botanical survey was carried out in 1908 (Cockayne, 1908). A more recent survey was conducted between 1960 and 1966 (Atkinson, 1981) and a popular account of the plant ecology of the park has been published (Gabites, 1986). Research

has also been undertaken on climate, fauna, ecology, landscape development and the role of pathogenic fungi in the dieback of beech Nothofagus spp. The Department of Scientific and Industrial Research, which has an observatory at Whakapapa Village, conducts regular geophysical, deformational and chemical studies on the volcanoes. In addition, seismic and magnetic activity and atmospheric shock waves are monitored continuously for eruption prediction. A summary of volcanic observations is compiled annually by the New Zealand Geological Survey and published in the New Zealand Volcanological Record (Williams, 1985). Bibliographies are given in Debreceny, (1981), Atkinson (1981), TNPB (1986), Williams (1985) and more comprehensively in Turnbull (1979).

CONSERVATION VALUE The park is of significance to the central North Island as an ecological, geological, recreational and economic resource. At the national level, ecological and recreational values are very important, while the economic values are of significance in the region and the **Tongariro** locality (DoC, 1990a). The park meets criteria (ii) for inclusion on the World Heritage List as an outstanding site for on-going geological processes, and criteria (iii) on the basis of exceptional natural beauty (IUCN Technical Evaluation).

CONSERVATION MANAGEMENT The 1977 management plan, which has been revised, was prepared by the **Tongariro** National Parks and Reserves Board and approved by the National Parks and Reserves Authority. The revised management plan (DoC, 1990a, b and c), comprising three volumes, states the following two goals: to preserve and protect for present and future generations the outstanding natural scenery, the scientifically important features and the indigenous natural resources which all contribute to make **Tongariro** National Park a place of national and international significance; and to promote an understanding of and appreciation for nature and natural evolutionary processess and the cultural and historic values of **Tongariro** National Park, as well as providing opportunities for visitors to enjoy the park in a manner consistent with national park principles. Six subsidiary objectives are stated. First, to manage the park so that the present comprehensive range of indigenous ecosystems amd natural processess continues. Second, to recognise and maintain the cultural, spiritual and inspirational heritage of the mountains in the park, and to recognise the spiritual and cultural significance of the park to the maori people and to consult with and give full consideration to the views of the appropriate iwi authorities. Third, to encourage such public use and enjoyment of the park as is consistent with the preservatio of the natural features and historic values of the park. Fourth, to enhance, through the provision of facilities and services for the benefit of park visitors, an appreciation and awareness of park values and of environmental and historical conservation and cultural values. Fifth, to ensure that conflicts between competing uses of the natural features and facilities of the park are minimised and to concentrate development as far as possible either outside the park or in the proposed amenities areas. Sixth, to provide opportunites to meet recreation needs by carefully controlled development consistent with national park principles. Detailed management policies cover a wide range of topics in the broad categories o preservation, management, public use and development. Volume Two of the

management plan covers ski-field management (DoC, 1990b) and Volume Three covers the management of Whakapapa village (DoC, 1990c).

The 1980 National Parks Act provides much of the protective, legal and administrative mechanisms for the park, although other statutes, and therefore a number of agencies, totalling 23, have an impact on the park. The Regional Conservator of the Department of Conservation has primary responsibility for the park. The Department is required to administer and manage the park in accordance with the current management plan, any bylaws for the park, the provisions of the National Parks and Reserves Authority's General Policy for national parks and the National Parks Act 1980. The management plan was prepared by the **Tongariro**-Taupo National Parks and Reserves Board following public input and approved by the National Parks and Reserves Authority (DoC, 1990a). Maori interests are represented by the Paramount Chief of the Tu Wharetoa tribe who has a permanent seat on the **Tongariro**/Taupo National Parks and Reserves Board.

The park is zoned into natural environment, two wilderness zones, three service areas and some 18 sites of unique biological or geological interest (TNPB, 1979). Ski-field development has been restricted by zoning the alpine regions of Mount Ruapehu and the summits of Mounts **Tongariro** and Ngauruhoe as 'pristine areas'. Developments are prohibited above 1,500m in the **Tongariro** and Ngauruhoe area, and generally above 2,250m on Ruhapehu. The boundaries of the Whakapapa and Turoa ski-fields currently attain 2,325m and 2,280m, respectively. An increase in the upper limit of the Whakapapa fields to 2,365m may be permitted if a full and favourable environmental impact assessment is carried out. However, in general, the pristine areas will be managed to avoid development and to conserve natural, cultural and historic values. Licensed sports hunting of deer and possums is permitted and programmes to eradicate lodgepole pine are undertaken (DoC, 1990a; Johnson, 1976; Debreceny, 1981).

MANAGEMENT CONSTRAINTS Extermination of introduced flora and fauna is a requirement of the National Parks Act 1980 (Section 4(2)(b)). However, given, limited resources, control rather than eradication is the current management approach (DoC, 1990a). The relative paucity of vertebrates stems from the nation-wide problem of introduced species. Furthermore, native flora have been reduced or eliminated by exotic herbivores such as red deer and possum (Atkinson, 1981). Invasive lodgepole pine Pinus contorta threatened to convert native communities into forest and was a particular problem in the eastern Rangipo desert area, but management measures have controlled and in some areas eradicated the pine. Nevertheless, the presence of seed sources in neighbouring commercial lodgepole pine plantations continues to pose a threat to the park. Exotic heather has also become established in the park and is a potential threat presently under study (Johnson, 1976; Atkinson, 1981). Volcanic activity, and especially mudslides, can endanger both wildlife and visitors and the park has witnessed major natural disasters (Williams, 1985). Concern over the impact of ski-field development and associated infrastructure have been addressed in the management plan which constrains ski fields within specific zones and has detailed policies covering their operation (DoC, 1990c).

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STAFF Twelve rangers, 50 waged workers and 5 administrative staff, supplemented by seasonal workers and other departmental staff, with a total of more than 110 during peak seasons

BUDGET The park accounts for about 80% of the Department of Conservation's Turangi district budget. In 1987/88 the district had a Government grant of NZ$2.3 million and also recovered NZ$800,000 in fees etc. from users. In 1988/89 the district received a grant of only NZ$900,000 and was expected to recover NZ$1.2 million from fees etc. Budget provisions for 1989/90 are not known.

LOCAL ADDRESSES

Regional Conservator, Department of Conservation, Turangi
National Parks and Reserves Authority, PO Box 2593, Wellington
Tongariro-Taupo National Parks and Reserves Board, PO Box 5014, Wellington

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Natural History Society, Wellington. 128 pp.

DATE April 1987, revised March 1989, October 1990

DOCUMENT 0206W

Infobase produced by WCMC, January 1992

Identification

Nomination	Tongariro National Park
Location	Tongariro and Wanganui Regions, North Island
State Party	New Zealand (Aotearoa)
Date	26 July 1993

Justification by State Party

The following attributes of the Tongariro National Park demonstrate its required integrity as a universally outstanding example of a culturally associative landscape:

- The power of the unbroken associations of the Ngati Tuwharetoa iwi (Maori tribe) with the mountains since the landing of the Arawa canoe: the strong association is both a physical (Pacific "Ring of Fire") and a cultural (Ngato-roirangi) connection to their Pacific origins in the Hawaikis. The cultural links are clearly demonstrated in the oral history which is still a pervasive force for Ngati Tuwharetoa. The peaks are spoken of with the same reverence and feeling as tribal ancestors, ensuring that the connection is one of spirituality as well as culture.

- The linkage of cultural identity with the mountains: Tongariro, Ngati Tuwharetoa, and Te Heuheu are inextricably linked with the tribal pepeha (statement of connection to a tribe and an area) recited at any occasion hosted by the Ngati Tuwharetoa iwi.

- The cultural significance of the gift: Horonuku's gift in 1887 formed the nucleus of the first national park in New Zealand, and only the fourth in the world. Significantly, this gift was the first from an indigenous people. The spirit of this gift fostered the formation of the national park network in New Zealand, and thus has safeguarded some of the most outstanding landscapes in the world from development.

- The high recognition, throughout New Zealand, of the rich cultural tapestry woven between Ngati Tuwharetoa and the Park.

The outstanding natural values have already been recognized by World Heritage listing. The associative cultural values for Ngati Tuwharetoa and Te Atihaunui a Paparangi are inseparable from the natural qualities.

History and Description

History

The Maori are a Polynesian people who reached Aotearoa (New Zealand) before AD 1300 (and possibly as early as AD 600-800). They came as settlers in large double-hulled canoes - men, women, and children, with their plants and domestic animals. One of the most important was the Arawa canoe, which made its first landfall at Whangaparaoa on North Island's East Cape and then travelled to Maketu in the Bay of Plenty.

The descendants of that canoe still hold authority over the land as far south as the Tongariro National Park. The people of the Park - Ngati Tuwharetoa - identify with Ngatoroirangi, the navigator of the Arawa canoe and legendary bringer of fire to Tongariro.

Mananui To Heuheu, paramount chief of Ngati Tuwharetoa, was one of the few Maori chiefs who refused to sign the Treaty of Waitangi in 1840 and thereby cede sovereignty to the British Crown. His son Horonuku, who succeeded Mananui in 1846 when he was buried by an avalanche on the mountain and who became known as Te Heuheu Tukino in 1862, came under severe pressure from land-hungry European settlers. When faced with the dilemma of having to divide his land following a dispute with the Maniapoto iwi or lose it to the Land Court, he took the advice of his son-in-law Lawrence Grace to make it "a tapu place of the Crown, a sacred place under the mana of the Queen". With the approval of the Tuwharetoa chiefs the land was handed over to the Crown as a gift in September 1887.

The original deed of gift made an area of 2640 ha consisting of three small circles around the main peaks into the first national park in New Zealand, and the fourth in the world. This was too small for effective management and over the years that followed large-scale purchases of land were made by the Crown, so that when the Tongariro National Park Act was passed in 1894 its area had increased to some 25,000 ha. A survey report in 1904 recommended that the area should be more than doubled, and today the Park's boundaries enclose over 79,000 ha.

Oral history

Maori culture has a rich oral history in which the connections between man and the landscape play a central role. The formation of the land, of the mountains' violent love for Pihanga (a "female" volcano), and of how fire came to the central North Island are the themes of some of the best known Maori stories. In Maori mythology the first children of Papatuanuku (Earth Mother) and Ranginui (Sky Father) were the spectacular mountains of Aotearoa, and thus linked closely with the last of their offspring, human beings.

The legendary ancestor of Ngati Tuwharetoa, Ngatoroirangi, was priest, navigator of the Arawa great canoe, and explorer. His first expedition took him to the top of Mount Tauhara from where he was able to see the snowclad summit of Tongariro, which

he resolved to climb and claim for his people. That expedition is chronicled in a celebrated epic. When he finally reached the summit of Tongariro, nearly overcome with cold and exhaustion, Ngatoroirangi called upon his ancestral spirits and upon his sisters in far-distant Hawaiki to send him fire. They heard his appeal and with the fire-gods Pupu and Te Hoata sent the fire from Hawaiki to revive him. Its fiery course is marked by mud-pools, geysers, steam-pits, and hot streams stretching across Aotearoa from the original landfall in the Bay of Plenty and culminating in the volcanoes of Tongariro and Ngauruhoe.

For the Ngati Tuwharetoa iwi this is a living landscape with its own mauri (life-force). With its active and dormant volcanoes and thermal pools it is, moreover, a direct genealogical link with their historical homeland in Hawaiki and with their landing place in the Bay of Plenty.

Description

The heart of the 79,000 ha Tongariro National Park and its cultural focus is admirably described in his 1907 survey report by Leonard Cockayne:

> The great volcanoes, Ruapehu, Tongariro and Ngauruhoe differed much in character. Ruapehu was a magnificent mountain mass, with glaciers filling the gullies. Its crater, a mile in diameter, was filled with crevassed ice and contained a hot lake... Ngauruhoe was a perfect cone in shape, and was quite without vegetation from base to summit. The crater contained towards its centre a mud volcano, which not very long ago covered the sides of the mountain for a thousand feet with hot mud... Tongariro was not one single volcano, but consists of a number of craters, some long since inactive and some still quite ready to eject ashes, whilst steam and sulphurous vapour were continually given off from them... Surely such a park should be one of the most prized possessions in our country.

Management and Protection

Legal status

The entire Tongariro National Park is owned by the Crown (ie the Government and people of New Zealand). It is designated a National Park under the terms of the National Parks Act 1980. The Park is public land and is freely accessible to the public, subject to any restrictions which may be required to ensure that it is maintained in its natural state.

Management

The national Department of Conservation is responsible for overall management of the Park's natural and historic resources. Management decisions are made according to statutory responsibilities, with input from the New Zealand Conservation Authority and the Tongariro-Taupo Conservation Board. Direct administration

of the Park is carried out by the Regional Conservancy, based in Turangi.

The Tongariro-Taupo Conservation Board was formed in 1990 as part of a nation-wide network providing for citizen input to conservation management and advice. Its twelve members include five Maori, one of whom is Sir Hepi Te Heuheu, lineal descendant of Te Heuheu Tukino.

The National Parks Act 1980 requires the production of a ten-year management plan for each Park. The Tongariro plan provides for the protection in perpetuity of the Park's intrinsic worth and for public access and enjoyment. Cultural integrity is preserved in the large degree of unmodified areas.

Conservation and authenticity

Since its creation in 1887 the Tongariro National Park has been sympathetically managed, and as a result the natural landscape is largely untouched. The extent of the ski-fields is rigorously controlled at 3% of the total area and they do not rise above a level at which the cultural values might be jeopardized. The displays at the Whakapapa Village Visitors Centre, with the planning of which the two iwi, Ngati Tuwharetoa and Atihauni a Paparangi, were closely associated, explains the cultural and natural significance of the Park and helps to ensure respect for its integrity and conservation.

Evaluation

Qualities

The cultural qualities of Tongariro are intimately linked with its natural qualities, which were recognized by its inscription on the World Heritage List in 1990 as a natural property under criteria ii and iii.

In the case of Tongariro the natural landscape plays a fundamental role through oral tradition in defining and confirming the cultural identity of the Maori people: the two are indissolubly linked. A basic sense of continuity through tupuna (ancestors) is manifested in the form of profound reverence for the peaks. The natural beauty of Tongariro is the spiritual and historical centre of Maori culture.

Additional comments

Tongariro is the first property to be nominated for consideration under the revised guidelines relating to cultural landscapes. It is relevant to mention here that it was one of the key case-studies considered by the expert group on cultural landscapes that met at La Petite Pierre in October 1992, and that it was taken as a model for defining the category of associative cultural landscape, the inclusion of which was "justifiable by virtue of the powerful religious, artistic or cultural associ-

ations of the natural element rather than material cultural evidence, which may be insignificant or even absent".

Recommendation

That this property be inscribed on the World Heritage List on the basis of criterion vi:

- Criterion vi The mountains that lie at the heart of the Tongariro National Park are of great cultural and religious significance to the Maori people and are potent symbols of the fundamental spiritual connections between this human community and its natural environment.

ICOMOS, October 1993