

**OUR REF 2011-057L3**

21 December 2015



Permissions/SLM Manager  
Department of Conservation-Te Papa Atawhai  
Hamilton Office Level 3  
73 Rostrevor Street  
Private Bag 3072  
**HAMILTON 3240**

Email: [dewart@doc.govt.nz](mailto:dewart@doc.govt.nz)

Dear Deidre

**RUAPEHU ALPINE LIFTS LTD : TUROA SKI AREA  
APPLICATION FOR LICENCE (CONCESSION)**

Please find enclosed the application for a Licence to operate the Turoa Ski Area. We include the following information:

- Report containing an Environmental Impact Assessment
- Licence Area Plans
- Policy Assessment
- Assessment of Landscape and Visual Effects
- Ecological Assessment
- Economic Reports
- IUCN Reports
- Reports from Ian Dickson regarding exceptional circumstances and business resilience

Please place this proposal before the appropriate officer for processing at your earliest convenience. Appendix 7 includes the Report on Ski Area Business Viability and Resilience which was prepared for the Whakapapa Ski Area Licence. The report applies to both Ski Areas and therefore hasn't been amended for the Turoa application. The report contains commercially sensitive financial information and therefore it is requested that it remains confidential.

Should you have any queries, please do not hesitate to contact us.

Yours sincerely

A handwritten signature in blue ink that reads 'Ella Tennent-Bacher'.

**ELLA TENNENT-BACHER**  
**SENIOR PLANNER**  
Email: [ellab@cheal.co.nz](mailto:ellab@cheal.co.nz)  
**027 322 5414**

# **Ruapehu Alpine Lifts Ltd**

Turoa Ski Area, Mt Ruapehu

Application for Licence Renewal  
Proposal Outline and Environmental Impact Assessment

2011-057AP9  
21 December 2015





# Ruapehu Alpine Lifts Limited

Turoa Ski Area, Mt Ruapehu

Application for Licence Renewal  
Proposal Outline and Environmental Impact Assessment

**Prepared by:**

.....  
Ella Tennent-Bacher  
Cheal Consultants Senior Planner

**Reviewed and  
Approved for  
Release by:**

.....  
Cameron Drury  
Cheal Consultants Hawkes Bay Manager

**Date:** 21 December 2015  
**Previous Issue:** 24 October 2014 (AP4)  
**Reference:** 2011-057AP9  
**Status:** FINAL

This document is the property of Cheal Consultants Limited. Any unauthorised employment or reproduction, in full or part is forbidden.

This document has been prepared for a specific purpose for the above client and shall not be used for any other unauthorised purpose. Cheal Consultants Limited does not acknowledge any duty of care or responsibility to any other party.

© Cheal Consultants Limited



# TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY</b> .....	6
<b>1. INTRODUCTION</b> .....	7
<b>2. DESCRIPTION OF PROPOSAL</b> .....	7
2.1 Current Licence .....	7
2.2 Proposed Licence.....	8
2.3 Licence Area .....	9
2.4 Licence Term .....	9
2.5 Preferential Right to Apply .....	11
2.6 Planned Upgrades and Replacements .....	11
2.7 Removal of Redundant Structures .....	15
<b>3. RUAPEHU ALPINE LIFTS LTD</b> .....	15
3.1 History of RAL .....	15
3.2 Company Structure and Key Personnel.....	15
3.3 RAL Aspirations .....	17
3.4 Financial Performance .....	18
<b>4. SITE DESCRIPTION</b> .....	18
4.1 World Heritage Status .....	18
4.2 Cultural Values .....	18
4.3 Physical Attributes of Turoa.....	19
4.4 Structures and Built Form .....	20
4.5 Slope Capacity .....	20
4.6 Natural Values .....	20
4.7 Servicing .....	20
4.8 History of Turoa .....	21
<b>5. CONSULTATION</b> .....	22
5.1 Department of Conservation .....	22
5.2 Tāngata Whenua .....	22
5.3 Tongariro/Taupō Conservation Board.....	22
<b>6. ENVIRONMENTAL IMPACT ASSESSMENT</b> .....	23
6.1 General Assessment .....	23
6.2 Cultural Values .....	23
6.3 Landscape Values.....	25
6.4 Ecological Values .....	27
6.5 Recreational Values.....	29
6.6 Social and Economic Effects .....	30
6.7 Public Safety .....	32
6.8 Climate Change .....	32
6.9 Quality of Visitor Experience .....	34
6.10 Summary of Effects.....	34
<b>7. POLICY</b> .....	35
<b>8. CONCLUSION</b> .....	37



## Appendices –

1. Licence Area Plans.
2. Policy Assessment, Cheal Consultants, December 2015.
3. Assessment of Landscape and Visual Effects, LA4, January 2014.
4. Ecological Assessment of the Turoa Ski Area, Nicholas Singers Ecological Solutions, December 2013.
5. Economic Reports – Price Waterhouse Coopers 2014 and NZ Tourism Research Institute, Auckland University of Technology, Mt Ruapehu Ski-fields: An Economic Impact Study
6. IUCN reports (1990 and 1993)
7. Memorandum from Ian Dickson to Dave Mazey regarding Exceptional Circumstances, 17 February 2015; Report on Ski Area Business Viability and Resilience, Ian Dickson, 27 May 2015



## 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*..... Ohakune Mountain Road, Tongariro National Park

*Legal Descriptions*..... Part Urewera 2A1, Part Urewera 1A, Part Rangipo North 8, Part Rangataua North 1

*Computer Freehold Registers*..... WN205/4 and WN205/3

### Activity for which a concession is sought:

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



## EXECUTIVE SUMMARY

Ruapehu Alpine Lifts (**RAL**) have developed and operated the Turoa Ski Area since 2000 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 licence with an initial term of 25 years, and then rights to one 10 year extension and five 5 year extensions 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 operate 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.

The Turoa Ski Area 2011 Indicative Development Plan proposals are discussed throughout this report as they signal the likely foreseeable upgrades. However it is understood that the licence will not provide approval for these proposals and Works Approvals will be required for any new infrastructure as stipulated in the Tongariro National Park Management Plan.

RAL have been operating the Whakapapa Ski Area for more than 60 years and Turoa Ski Area for 15 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. A Cultural Impact Assessment was commissioned



by RAL in mid-2014 and will be forwarded to the Department of Conservation as soon as it is received. RAL are also pursuing a Partnership or Relationship Agreement with Ngāti Rangi and Uenuku Tribal Authority.

## 1. INTRODUCTION

RAL took over operation of the Turoa Ski Area in 2000. The Ski Area has a long history of commercial use and consequently has extensive infrastructure established onsite. Road access to the ski area was established and the first licence for skiing was issued in the mid-1960s. 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.

Turoa Ski Area currently attracts 180,000 to 240,000 visitor days (i.e. one person for one day) during a winter season and has previously operated during summer also. These numbers reflect persons that ride a lift. It is estimated that a further 15,000 to 25,000 in winter and 10,000 to 20,000 in summer will travel to the road end, will play in the snow and generally experience the alpine environment and scenery at that altitude.

The current licence is due to expire in 2022 and a replacement licence is sought now as the time remaining on the licence provides insufficient time and certainty for RAL to continue to undertake infrastructure upgrades at Turoa. No changes to the current licence boundaries are sought.

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 transferred to RAL in 2000 after originally being issued in 1977 for a term of 45 years, expiring in 2022. Existing clauses of the licence cover such topics as surrender of previous licences, payment of rent, removal of rubbish, signs, shelter, minimum lift operating times, provision of safety services, machinery maintenance, portion of New Zealand equity in the company, 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

A new licence is sought to continue the skiing and recreational operations at Turoa Ski Area. The existing licence covered the entire Ski Area and did not require lease agreements. Accordingly a lease is not sought.

The degree of specificity of the definition of the proposed activity for the licence has been a topic of discussion between RAL and DOC for more than three years. This interrelates with the term of the licence. Alpine recreation is developing quickly with technological advances and new inventions as well as alternative activities not currently envisaged. Examples include snowboarding which was not active in NZ at the time the current licence was signed, the use of the Knoll Ridge Iwi and Youth facility by Ngāti Hikairo and Ngāti Tūwharetoa as a meeting place and shelter (at Whakapapa) and the Matariki celebration at Turoa. It is therefore proposed to strike a balance between certainty and flexibility given the term sought and potential changes that can occur during that time. Too much specificity is likely to lead to unnecessary restrictions and multiple variations to the licence for minor matters. Too much flexibility may not provide DOC, Tāngata Whenua and the public sufficient certainty for assessing effects. In determining the best approach consideration has been given to how the existing licence addresses the definition of the activity. Schedule C of the ....Whakapapa Ski Area licence defines skifield business as:

- (a) *To erect, maintain and operate the lifts, tows and facilities for the use of the public, in the Licence area described in Schedule B.*
- (b) *To sell or hire all goods and services normally available at the skifield from their premises in their Licence area approved by the Licensor.*
- (c) *To carry out such trade, businesses, occupations or activities which are in accordance with the operative Management Plan and to which the Licensor has given its consent in writing or to provide such services as the Licensor requires.*
- (d) *To provide ski instruction for members of the public within the Licence area.*
- (e) *To provide, maintain, develop and operate carparking facilities for members of the public, whether skiers or not and to regulate traffic movement in the areas appropriated for carparking in the Park, as required by the Licensor.*

The schedule to the existing Turoa Ski Area licence specifies:

- (f) *A ski lift operator*<sup>[EB1]</sup>
- (g) *Selling and hiring skiing and mountaineering equipment toboggans and clothing and selling foodstuffs, refreshments, souvenirs, postcards, unexposed films, cigarettes and tobacco and operating cafeteria services.*
- (h) *Ski instruction*
- (i) *A restaurateur*
- (j) *A crèche*



The licence is sought to:

*Undertake 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.

It is proposed to include in the sought licence a clause similar in intent to clause 36 of the existing licence.

#### *Clause 36*

*So long as the licensee complies with and performs its obligations under this licence to the satisfaction of the licensor then the licensor will not licence any other person to erect or construct facilities on the skifield or to carry on the skifield any of the businesses or any other business without first offering such licence to the licensee for the balance of the term of this licence....*

Clauses relating to the provision of safety services are also anticipated however this is not considered necessary as other legislation requires Health and Safety actions.

Possible new clauses volunteered by RAL for consideration include:

- That the design carrying capacity shall not exceed 5,500 skiers per day.
- That the concessionaire shall promote and acknowledge the cultural values of Mt Ruapehu, where appropriate and in collaboration with Tāngata Whenua.

## **2.3 Licence Area**

The existing Turoa licence area covers approximately 496 hectares and no changes to the licence boundaries are proposed. A plan of the licence area is included in Appendix 1. The Ski Area has operated sufficiently without a lease and accordingly a lease is not sought.

## **2.4 Licence Term**

A Licence with an initial term of 25 years then one 10 year extension and five 5 year extensions is sought. Previously RAL were seeking a 60 year term however following consultation with Iwi the proposed term has been revised to an initial term of 25 years. At the end of the tenth year a 10 year extension will be provided – resulting in a forward term of 25 years. At the end of the fifteenth year a 5 year extension will be provided – resulting in a forward term of 25 years. At the end of the twentieth year another five year extension will be provided – resulting in a forward term of 25 years



(and so on for five 5 year extensions). It is proposed that the approval of the extensions be linked with compliance with cultural and environmental clauses of the licence, with the operation assessed against the licence conditions and if fully compliant, then the term extension will be approved.

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. This is expanded on in the appended Memo from Ian Dickson.

Property, plant and equipment over both Ski Areas has a replacement cost valued at \$153.5m, with replacement cost of the Turoa assets being approximately \$90m. An average annual capital investment program to the value of approximately \$4m to \$5m has been and continues to be required to provide for the end of life replacement of the current assets at Turoa. For example, recently the Knoll Ridge Chalet and Cat Shed located at Whakapapa 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. The Nga Wai Heke Chairlift project which was a relocation of the High Flyer Chairlift cost approximately \$2.3m.

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.

Wages and salaries for the 2015 financial year totalled approximately \$9.8m. The total expenses of running the two Ski Areas for the same financial year was approximately \$24.36m. 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 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 is conscious of Tāngata Whenua's uneasiness regarding terms that extend more than a generation. In order to mitigate this concern, the term extensions have been proposed. The enormous economic cost of infrastructure and long return period on investments justify an



exceptional circumstance in regards to the term. In our opinion, the staggered term proposed does not derogate from the exceptional circumstances that justify a term of more than 30 years. Due to the significance placed on cultural values, RAL wishes to proceed with the proposed staggered term.

It is proposed that the existing licence will be relinquished at the time the new licence is approved and signed.

## 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:

*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

All future changes to the Ski Area infrastructure cannot be predicted, however RAL does have forward planning for approximately the next 20 years incorporated within the Turoa IDP which signals the current thinking and intentions.

The long term planning for Turoa is based on renewal of ageing infrastructure to meet current customer expectations, to improve the recreational experience whilst mitigating cultural, ecological and landscape effects.



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

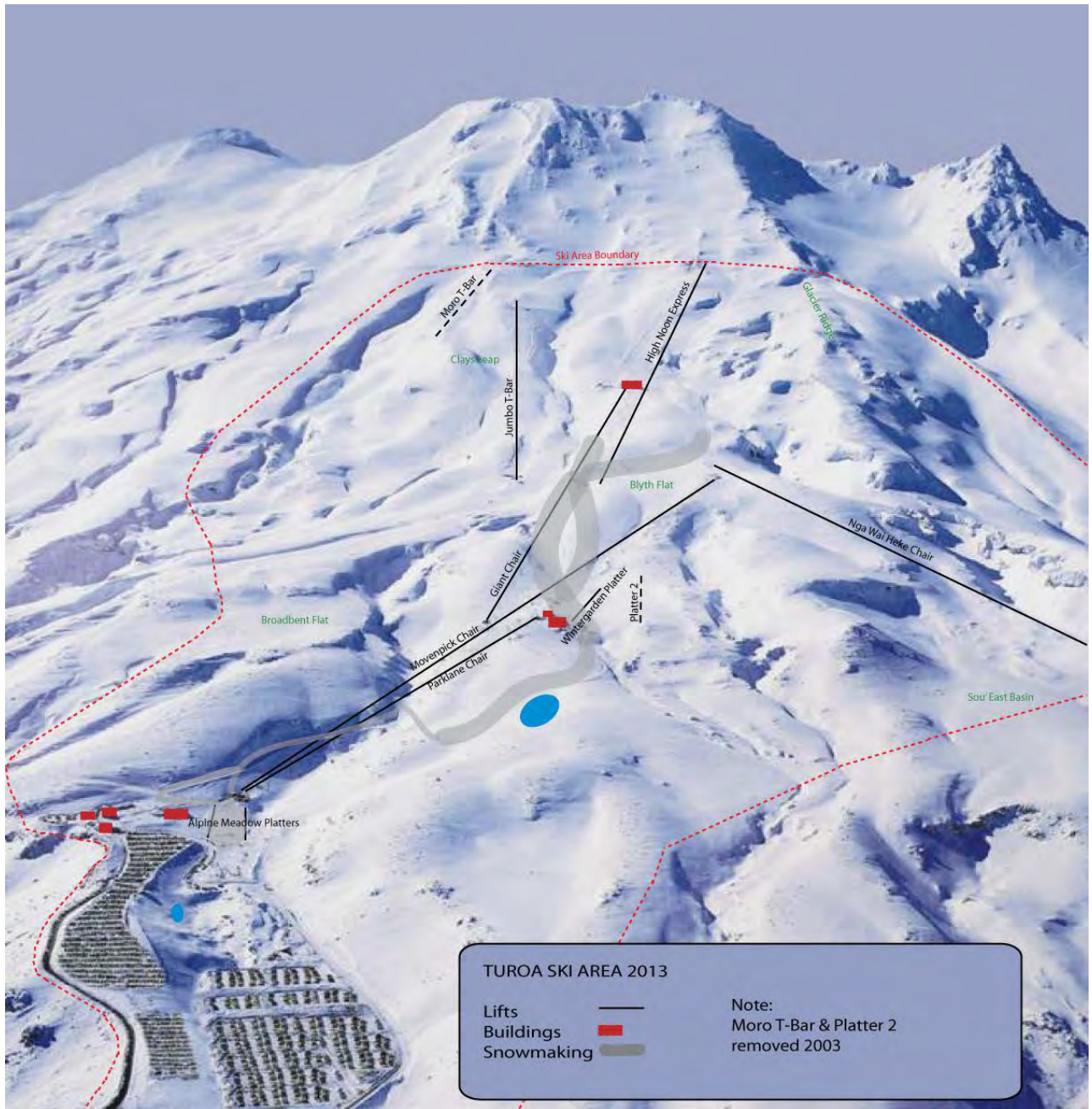
The Turoa IDP identifies the following major projects over the next 20 years:

- Movenpick Lift – is an upgrade of this existing lift ;
- Sunset Express Chairlift – a new quad detachable chairlift on a new line to better service the western slopes. It will allow removal of the Jumbo T-bar. Also the Moro T-bar was removed in 2003 in anticipation of the Sunset Express Chairlift installation;
- A new chalet will be developed at Blyth Flat, which will allow removal of the current chalet services at the top of the Giant Chairlift;
- The Alpine cafe in the base area and the Snowflake Cafe at Wintergarden will both be extended to provide a 10% to 20% increase in current floor area;
- Increased snowmaking reticulation and capacity.

The collective proposals outlined above result in the Design Carrying Capacity increasing marginally from 4,800 to 5,000. Minor proposals, such as carpet lifts, have not been included in this assessment. The TNPMP identifies the comfortable carrying capacity of Turoa as 5,500 skiers per day.

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 propose changes that 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 contribution to the economic wellbeing of the surrounding communities.

Detailed assessment of any proposals will need to be undertaken through the Works Approval and Construction Management Plan approval process which is undertaken with DOC and Iwi at the time following consultation and when details of each project is available.



**Figure 1 – Annotated Aerial Photograph of Existing Ski Area Infrastructure**



**Figure 2 – Annotated Aerial Photo with Proposed Ski Area Infrastructure**



## 2.7 Removal of Redundant Structures

In accordance with the TNPMP, RAL are committed to the continual removal of redundant structures, including those installed and abandoned by other parties such as previous concessionaires and DOC. RAL has removed some small redundant buildings and relocated two buildings such as the old DOC office to cluster buildings together where possible and minimise visual effects.

Removed lifts include:

- Moro T-bar (removed in 2003);
- Platter 2 (removed in 2003);
- High Flyer Chairlift (relocated and renamed Ngā Wai Heke in 2012).

The number of fuel storage tanks has been significantly reduced. The current capacity of bulk storage for diesel located within the ski area totals 63,000 litres which is almost half of the storage capacity existing 10 years ago when the capacity was 120,000 litres. Not only has the capacity been reduced, but the number of locations with large fuel tanks has reduced from six to four.

RAL will continue to remove redundant structures, unused buildings, remnant foundations and cables. In addition, the Jumbo T-Bar will be removed in conjunction with construction of the Sunset Express Chairlift. Where possible, natural ground contours will be restored after removal of redundant structures. If appropriate, a program of replanting with native vegetation will be implemented.

## 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, and an advisory trustee of National Army Museum, Waiouru.
- *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.
- *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.
- *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.
- *Geoff Taylor*  
Geoff is a Director and Manager of Dairy Investment Fund Limited and TDB Advisory Limited. Geoff is also a Director of a number of dairy related businesses and a trustee of NZ Fire Service Superannuation Fund.

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 Rangī or Uenuku 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 mostly at Whakapapa (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. 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.

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 ski areas and have responded to changes in the recreational market in a progressive, adaptable and socially responsible manner.

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 south of the summit of Mt Ruapehu includes the traditional rohe of the Ngāti Rangī and Uenuku people.

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.*

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.<sup>1</sup>.

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 wastewater system and minimising terrain modification.

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. Regardless of the outcome of the Treaty Claim, RAL wish to pursue a partnership or relationship agreement with Ngāti Rangī and Uenuku.

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 of Turoa**

Turoa Ski Area is located on the south-west side of Mt Ruapehu. Mt Ruapehu together with Mt Ngauruhoe, Mt Tongariro and surrounding areas forms the 79,598 hectares of the Tongariro National Park. Ohakune township is located on the edge of Tongariro National Park, directly below the Turoa Ski Area with access via the Ohakune Mountain Road.

---

<sup>1</sup> From the Waitangi Tribunal Te Kāhui Maunga National Park District Inquiry Draft Report.



The Park contains the only commercial ski areas of the North Island of New Zealand. The Ski Area includes the upper reaches of Ohakune Mountain Road, the associated carparks and the entire ski infrastructure.

Unlike Whakapapa Ski Area where there are more than 40 club lodges, the Turoa Ski Area does not contain any accommodation. Consequently, Turoa has a much reduced scale of built form when compared with Whakapapa. The base area is located at approximately 1,630m asl and the highest lift point is at approximately 2,325m asl.

Mt 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.

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.

#### **4.4 Structures and Built Form**

The ski infrastructure at Turoa is characterised by large parking areas at the Base Area, 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.

#### **4.5 Slope Capacity**

The TNPMP identifies the comfortable carrying capacity of the Turoa Ski Area as 5,500 skiers per day. The RAL 2011 IDP identifies the current design carrying capacity at 4,800, with planned upgrades resulting in a design carrying capacity of 5,000. A volunteered clause of the licence is to limit the design carrying capacity to a maximum of 5,500, which is consistent with 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%. A 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 Turoa Ski Area is highly natural and intact with very few invasive species present.

#### **4.7 Servicing**

All RAL buildings with toilet facilities are connected to a reticulated wastewater system that is transferred to the Council's Ohakune treatment plant. No effluent is treated on or disposed of to the mountain.



A 45,000m<sup>3</sup> water reservoir is located below the Wintergarden, south of the Parklane Chairlift. The reservoir is used to supply the Ski Area's domestic water demands and for snow making. Another smaller reservoir is located near the parking area.

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.).

Existing carparks provide parking for five buses and more than 1,700 cars. RAL operates a free shuttle service. The Ohakune Mountain Road is sealed and in good condition with no changes to the road anticipated for the foreseeable future. Minor changes to the carparks will provide some additional parks.

## 4.8 History of Turoa

From the TNMPM:

*In the early 1950s the Ohakune Mountain Road Association was formed to promote the construction of an access road into the park from Ohakune. The purpose of the road was not only to give access to the snow and ski slopes from Ohakune but also to provide a scenic drive through the indigenous bush. After 11 years of fundraising and much labour on a voluntary basis the road was opened to 12 kilometres (approximately Mangawhero Falls) in 1963. It was extended by the Ministry of Works to the present top of the road 17 kilometres shortly after.*

*The first licence for the provision of facilities for skiing was taken up by the Winchcombe Brothers who operated a rope-tow at the present top of the road area from the mid-1960s. This licence was subsequently sold to Robin Reid who continued in the same area and who built a sledge type of tow up the first ridge towards the north. A second licence was taken up by John Broadbent in 1967 to operate a rope-tow at what is now called Broadbent's Flat.*

*By the late 1960s the Tongariro National Park Board was concerned about the pressure on Whakapapa Ski Area which was beginning to experience significant environmental impacts from increased development and visitor numbers. The board was keen to see Turoa Ski Area development to relieve this pressure and in 1970 it issued a prospectus and called for applications by developers. A number of applications were received but none could demonstrate sufficient financial capability and the concession remained dormant.*

*In 1975 a Swiss company investigated the development of Turoa Ski Area and produced a feasibility study. The board granted the company a concession to operate two tows immediately but the company decided not to proceed with the investment.*

*In 1976 Alex Harvey Industries (AHI) applied to carry out a feasibility study for ski area development and a 45-year licence was signed in November 1977. An environmental impact assessment was published by the company in March 1978.*



*Development work for the ski area, including reconstruction of the top 1.5 kilometres of the Ohakune Mountain Road, commenced in the summer of 1977/78. The initial construction included two chairlifts, buildings at the top of the road and midfield, the Loop Road and car parks. The field operated on a limited basis in the latter part of the 1978 winter. For the 1979 winter a high level T-bar was added. A platter lift was built at the top of the first chairlift for the 1981 winter and a second platter followed in the same area for 1982.*

*In subsequent years, new developments included the installation of additional T-bars, chairlifts, car parks and snowmaking infrastructure. In 2000, Ruapehu Alpine Lifts Ltd purchased the ski area licence and assets of Turoa Ski Resort Limited when the company went into receivership.<sup>2</sup>*

## **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. More meetings were held in August and September 2013. Since that time, discussions with DOC staff regarding information requirements and process have been ongoing.

### **5.2 Tāngata Whenua**

RAL have been consulting with Ngāti Rangi and Uenuku regarding the Turoa licence application for the last few years. RAL intend to continue consultation with Ngāti Rangi and Uenuku and pursue the initiative of a partnership or relationship agreement. Most recently, RAL's Chief Executive and Chairman attended a hui with nine Ngāti Rangi representatives on Saturday 13<sup>th</sup> June 2015 to discuss the licence application, proposed upgrades and Cultural Impact Assessment. The partnership agreement idea had been raised in previous meetings with Ngāti Rangi representatives. The Cultural Impact Assessment was commissioned in mid-2014. Topics discussed at the hui included co-governance/partnership agreement, licence term, rubbish clean-up, employment of Ngāti Rangi in monitoring effects at Turoa, local employment, climate change and increase to the snowmaking water take, cultural story-telling at Turoa and consultation early on in conceptual design phase of proposals. Meetings have also been held with Uenuku Tribal Authority representatives regarding the licence application, term and partnership agreement. Currently a joint Maunga Management Plan is being considered by Iwi and the Cultural Impact Assessment has not yet been received.

### **5.3 Tongariro/Taupō Conservation Board**

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

---

<sup>2</sup> TNPMMP page 199



Conservation Board meeting. In February 2012 Dave Mazey of RAL provided a presentation to the Conservation Board regarding the IDPs for both Ski Areas and the intention to renew the Turoa Licence. The IDP was also discussed at the May 2012 Conservation Board meeting. In February 2013 the Conservation Board meeting was held at Turoa Ski Area and an update on the licence application was provided by Jono Maxwell of DOC.

At the August 2012 Conservation Board meeting, a workshop was conducted 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.

## **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 Turama Hawira to prepare a Cultural Impact Assessment for the licence application in regards to Ngāti Rangī. Mr Hawira and Dave Mazey have also been in contact with Uenuku who intend to provide their own assessment of the cultural effects of the licence.





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.

In spite of climate change and challenges facing the rising snow levels, RAL are not intending on seeking an extension to the upper limits of the Ski Area out of respect for the cultural significance of the upper reaches of the mountain. Alternatives such as snowmaking and other associated snow management techniques are to be developed in new areas lower on the mountain as an adaptive way of managing the effects of climate change.

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's understanding of cultural impacts.

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 for locals 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.
- Discounted season passes to Iwi registered on the IWI database with either Ngāti Rangī or Uenuku Tribal Authority.

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 Rangi and Uenuku, 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. Accordingly RAL have suggested that a partnership or relationship agreement be entered into between RAL and Ngāti Rangi and Uenuku. Agreement to enter a partnership agreement or the details of such, has not yet been reached but RAL envisage it being:

- A mutual commitment to an enduring and positive relationship that reflects and respects Tangata Whenua's relationship with Mount Ruapehu and the aspirations of both parties;
- Shared principles that are the foundation for that relationship; and
- A joint approach between Tangata Whenua and RAL through the establishment of a new operational body.

The proposed operational body is intended to have a governance oversight role in relation to the Turoa Ski Area with three Iwi representatives, three RAL representatives and an independent chairperson. An operational body is proposed for each Iwi group resulting in two boards. The boards may have the following or similar functions.

- Provide advice on how Tangata Whenua tikanga and values in respect of Turoa Ski Area and Ruapehu can be recognised and respected;
- Review RAL's long-term strategies for the Turoa Ski Area operations and infrastructure;
- Five yearly performance reviews of RAL operations;
- Provide advice to RAL.

Through the relationship agreement and CIA it is proposed that RAL continue to improve their performance in regards to cultural sensitivity and cultural effects. The proposed structure to the licence duration is a direct response to concerns raised by Iwi regarding time frames extending beyond a single generation.

## 6.3 Landscape Values

Buildings and ski lifts owned by RAL have the potential to affect the landscape values of the area. The mountain landscape is vast however and therefore generally accommodates relatively large structures. The buildings have been designed to blend into the summer landscape as much as possible by the use of appropriate colours, materials and design elements.

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 proposed upgrades to major infrastructure present relatively few changes. The Movenpick chairlift will remain in its current location and be upgraded. It is anticipated that the scale of the lift towers will be similar to the present lift. A detachable lift provides greater capacity and speed and allows the chairs to be removed when not in use or during extreme weather, reducing the need for manual de-icing. From the appended Assessment of Landscape and Visual Effects:

*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 Movenpick Express chairlift is replacing the existing ski lift lines in a similar configuration. The Sunset Express, will introduce a new chairlift on the western slopes, however it will result in the removal of the Jumbo T-Bar and will also provide some replacement uphill capacity that was reduced with the removal of the Moro T-Bar in 2003. This Moro T-Bar was located further west than the proposed Sunset Express. As the Movenpick Express and Sunset Express chairs are detachable they will be stored when not in use during summer in the lower terminal building, thereby reducing the visual effects.*

The appended landscape assessment has assessed the effects of the IDP proposals as opposed to the ecological assessment which considers the effects of both the existing development and the IDP proposals. A different approach for the assessments has been undertaken for two reasons. As the landscape effects of the existing buildings, structures and infrastructure are established and non-changing with time it would be fruitless to assess the existing landscape effects. In contrast, the ecological effects of the Ski Area can vary with time and management and therefore it is suitable to assess the ecological effects of both the existing Ski Area and the proposed infrastructure changes. The ecological assessment allowed for additional mitigation to be identified and proposed. In contrast, all the buildings and structures are of suitable colours and therefore additional mitigation (such as a change in colour) is not achievable for visual effects. This has produced the difference in approach for each assessment. Nonetheless, the landscape assessment prepared by LA4 does provide an analysis of the existing alpine character and amenity values of the area and assesses the cumulative effects of future development combined with the existing developments on the mountain.

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 (at Whakapapa), where in excess of 7,000 tussocks have been grown from local seed and then planted – improving ecological and landscape values.

Rob Pryor of LA4 has assessed the landscape and visual effects of the proposed upgrades (report is appended) and concluded:



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

Overall, in recent years RAL has responded well to enhancing the landscape values which is now an essential consideration 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 Turoa Ski Area there are four permanent fuel tanks with a combined capacity of 63m<sup>3</sup>. In the last ten years the number of tanks has been reduced by two and the total volume almost halved, being reduced by 57m<sup>3</sup>. Accordingly the risk of spills and the severity of environmental damage from a spill have been significantly reduced.

The resource consent and Works Approval for the base area replacement fuel tank in 2014 was a thorough process including an independent review of stormwater management within the catchment. RAL invested in the latest technologies for monitoring, alarms and control of the fuel tank. All fuel tanks are double skinned/self banded. An additional large interceptor was installed and changes to stormwater management implemented. Consultation was undertaken with Iwi including site meetings and a demonstration of the stormwater system. Accordingly the highest level of protection is afforded against a spill at the Base Area.

The 2013 spill prompted RAL to also review their wastewater infrastructure. The review has been completed and minor upgrades have been recommended and are to be implemented over the next few work seasons.



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;
- 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 require consultation with Iwi and will need to be authorised by DOC 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 Turoa Ski-field is highly natural outside of the development foot print. Past management practices have caused significant impact to natural values in localised high use areas, especially as a result of terrain modification. Snow making negates the need for this management practice and recovery of vegetation will likely occur if management practices are consistent with policies within the Tongariro National Park Management Plan.*

*The Turoa IDP proposes to reduce congestion on Clary's track through the creation of alternative routes, some of which would impact on ecological values of the Mangawhero gully exclusion area. If this were to proceed mitigation should occur to off-set the loss of these values.*

*In general RAL's management of the Turoa Ski-field 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-field on Mt. Ruapehu. RAL's management seeks to be adaptive and constantly improve how the ski-field is operated and recommendations suggested in this report will further improve this. 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:

- Bunding of petrochemical storage;
- Vegetation monitoring and restoration;
- Careful planning of the route for new snow-making infrastructure.

All existing fuel tanks are self-bunded and RAL are currently working on a review of the fuel infrastructure and systems with several upgrades completed for the Base Area tank including:

- The tank contains a submersible pump. This allows the pump to be contained within the self-bunded tank (the previous pump was external to the tank and bunding);
- The tank contains a cabinet with self-bunding to contain the pipe connections (previously external to the tank and bunding);
- Leak detection probes within the bund with automatic shut down if a leak is detected;
- The workshop bowzers and their associated pumps have been replaced with a system that does not require pumps at the bowzers;
- Emergency cut-off switch at the tank and the bowzers;
- Automatic shut-off of bowzers in the event of a knock to the dispensers;
- 5 minute timer at the bowzers;
- Continuous monitoring and control with an automated system;
- Automatic reconciliation with delivery metering;
- The existing secondary lined pipes were pressure tested prior to connection to the replacement tank;
- Mechanical overfill prevention at the tank;
- Breather inside cabinet (previously external);
- 6 monthly safety devices inspection;
- Annual environmental checks;
- Monthly reconciliation and visual inspections.

A condition regarding vegetation monitoring and restoration can be included in the licence if deemed necessary by DOC.

Any new infrastructure or upgrades will be carefully planned and subject to ecological assessments. Accordingly all the recommendations of the ecological assessment can be provided for.

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.

## 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<sup>3</sup>.

The ski area provides for other recreational users outside of the ski season also. Although the Turoa Ski Area currently doesn't open during summer, the carpark provides access to walks. Potentially in the future Turoa Ski Area may open outside of the ski season.

The proposed lift upgrades include replacement of T-bars with a chairlift (the Sunset Chairlift to replace the Jumbo and Moro T-bars). 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 can potentially be used in summer by hikers. Chairlifts are considered a safer form of transport compared to T-bars. Accordingly, the upgrade will provide safety benefits 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 of the Mountain.

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<sup>4</sup>. 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.

The Turoa Ski Area provides employment for up to 400 persons during winter and up to 15 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 and particularly in Ohakune. The 2002 Economic Impact Study of the Ski Areas<sup>5</sup> concluded that *visitors to Mt Ruapehu also have an important downstream impact on the North Island economy. The*

---

<sup>3</sup> TNPMP (2006-2016) DOC page 35

<sup>4</sup> National Parks Act 1980 section 4 principles to be applied in National Parks

<sup>5</sup> NZ Tourism Research Institute, Auckland University of Technology, Mt Ruapehu Ski-fields: An Economic Impact Study, March 2002



*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):

*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. 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.*

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 and Iwi 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.

The Jumbo T-bar is partially within the Summit Hazard Zone as is its proposed replacement, the Sunset Express.

- **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 where necessary.

## 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 45,000 litre water reservoir and reticulation system. 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 and school holiday programmes etc.

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 at Whakapapa 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

The building's success illustrates RAL's commitment to quality in its buildings and integration with its surrounds. RAL's proposed chairlift upgrades are in the interests of visitor safety and improved comfort and amenity. The upgrade proposals will incorporate landscape considerations and the proposed upgrades are modest in response to the cultural values of the area.

## 6.10 Summary of Effects

The Ski Area provides significant economic, social and recreational benefits to the wider region and supports various school 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 modest upgrade



proposals of the IDP. A Cultural Impact Assessment has been commissioned and is expected to be completed shortly. The licence term structure has been designed to alleviate Tangata Whenua concerns regarding a long duration licence. A partnership agreement with Tangata Whenua has been proposed by RAL and is being pursued in order to incorporate cultural values into the business and provide other benefits such as assurances for Iwi in regards to cultural and environmental performance by RAL.

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 Turoa 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:

- Upgrade proposals have been kept modest;
- 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 and replanting for site rehabilitation;
- Steam cleaning of equipment prior to arrival on site to prevent the introduction of invasive weeds;
- Enhancement planting;
- Monitoring of vegetation;
- Commitment to continued consultation with and involvement of Tangata Whenua including a Partnership Agreement if agreeable to Iwi.

Overall, the planned changes at Turoa Ski Area have been designed in response to the expectation of customers, cultural values, ecological values and landscape values.

## 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 Turoa Ski Area for a period of 30 years with an additional 30 years structured as six five-year extensions. 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. The long term planning for Turoa also involves the extension of snow making infrastructure which addresses the potential effects of climate change without change to the Ski Area boundary.

RAL have over sixty years' experience operating at Whakapapa and fourteen years at Turoa and have adapted to the cultural, ecological and landscape values of the mountain. RAL provide a quality visitor experience.

The mountain is taonga to Tāngata Whenua and subject to a Treaty claim. A Cultural Impact Assessment was commissioned in June 2014. Many aspects of the RAL operations have changed over the years in response to increased awareness of cultural values. The upgrade proposals are modest in response to cultural values. A partnership agreement is proposed by RAL and if acceptable to Iwi it will create a board with equal Iwi and RAL representation and an independent chairperson. The board will be able to review RAL proposals and performance.

Upgrades of the existing infrastructure will require investment in excess of \$50 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. For these reasons a 60 year licence is required to provide a sufficient forward timeframe for return on such investments.

Overall, the continued operation of RAL as the concessionaire at Turoa 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**

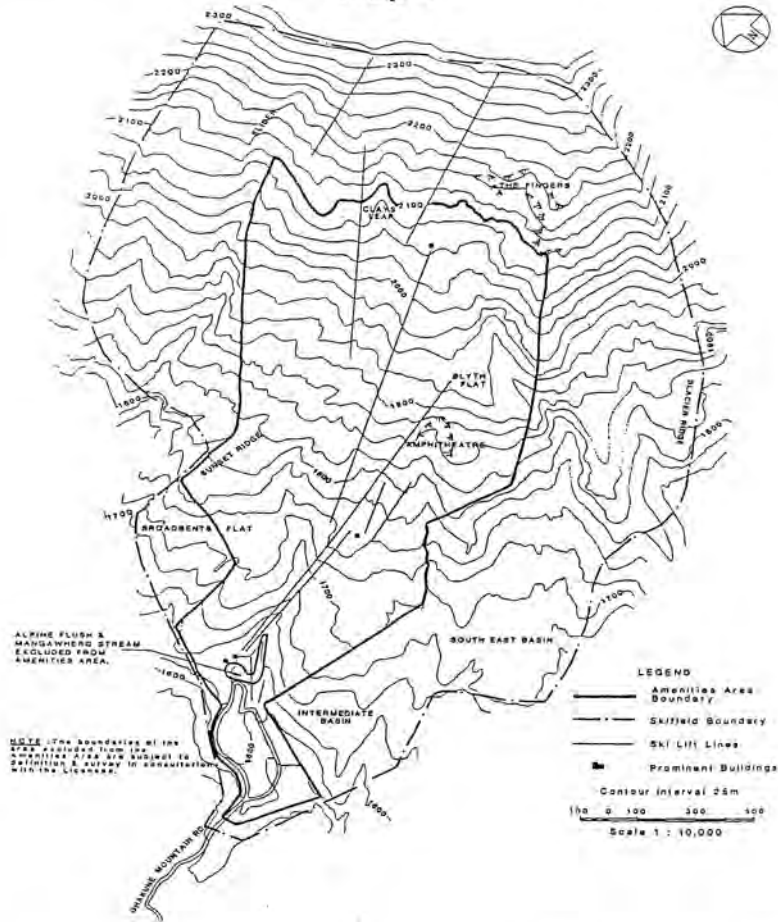
.....

**Dave Mazey**  
**CHIEF EXECUTIVE OFFICER**  
**RUAPEHU ALPINE LIFTS LTD**

# Appendix 1

License Area Plans

# Map 1



ALPINE FLUSH & MANGAWHERO STREAM EXCLUDED FROM AMENITIES AREA.

NOTE: The boundaries of the area included from the Amenities Area are shown in definition & survey in accordance with the License.

**LEGEND**

- Amenities Area Boundary
- - - Skifield Boundary
- Ski Lift Lines
- Prominent Buildings

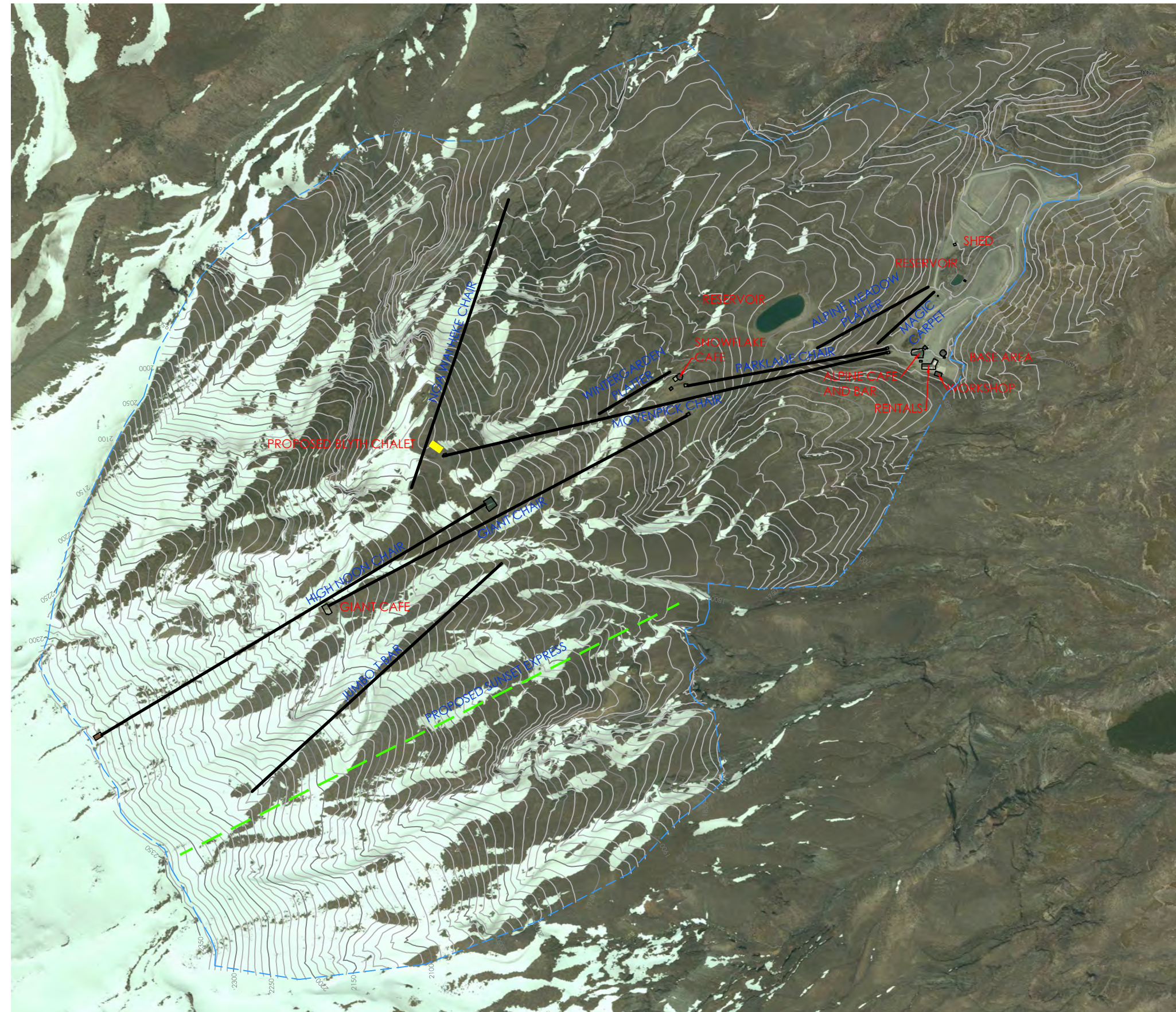
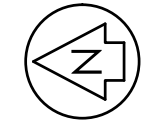
Contour interval 25m

1ha 0 100 200 300

Scale 1 : 10,000

TUOROA SKIFIELD BOUNDARIES





www.cheal.co.nz

**NOTES:**  
 Coordinates are in terms of NZGD1949 Tuhirangi circuit.  
 Contour Interval = 10.0m

Geo-referenced photogrammetry and contours are imported from NZ Aerial Mapping Ltd NZAM Ref: 13.118 flown November 2010

Chairlifts, T-Bars and Platters have been located by survey of pylons.

Deed of gift boundary imported from dwg. 2010-186-SC001 surveyed 6/October/2010

Skifield Zone has been digitised from Ruapehu District Council Map 11

- LEGEND:**
- Major contours (50m)
  - Minor contours (10m)
  - - - Skifield zone
  - Chairlifts, T-Bars and Platters
  - RAL Buildings
  - Proposed Lift
  - Proposed buildings

Infrastructure to be added	
Stage 1	Stage 2
Movenpick Express	Sunset Express
Blyth Chalet	
Infrastructure to be removed	
Stage 1	
Movenpick Chair	
Giant Cafe	
Jumbo T-bar	

Rev	Date	Amendment	By	Chk	App
B	18/12/15	Proposed Infrastructure added	AGM	EB	AGM
A	19/12/13	ISSUED FOR INFORMATION	ML	AGM	AGM

Project Title  
**RUAPEHU ALPINE LIFTS LTD**

LICENCE RENEWAL  
 Drawing Title

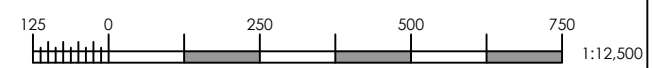
**TUROA SKIFIELD**

Surveyed			
Designed			
Drawn	M LITOLFF	18/12/13	ML
Checked	A MOSS	19/12/13	AGM
Approved	A MOSS	19/12/13	AGM

Status **INFORMATION**

Scale A1 - A3  
 1:12,500

Drawing Number  
**2011-057-TP021** Rev **B**



## **Appendix 2**

Cheal Consultants Policy  
Assessment dated  
December 2015

# **Ruapehu Alpine Lifts Ltd**

Turoa Ski Area, Mt Ruapehu

Application for Licence Renewal – Policy Assessment

*2011-057  
December 2015*

## Ruapehu Alpine Lifts Ltd

Turoa Ski Area, Mt Ruapehu

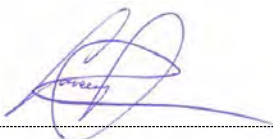
Application for Licence Renewal – Policy Assessment

**Prepared by:**



.....  
Ella Tennent-Bacher  
Cheal Consultants Senior Planner

**Reviewed and Approved  
for Release by:**



.....  
Cameron Drury  
Cheal Consultants Hawkes Bay Manager

**Date:** December 2015  
**Reference:** 2011-057AP7  
**Status:** Final  
**Revision:** 2  
**Previous Revision Date:** 24 October 2014

This document is the property of Cheal Consultants Limited. Any unauthorised employment or reproduction, in full or part is forbidden.

This document has been prepared for a specific purpose for the above client and shall not be used for any other unauthorised purpose. Cheal Consultants Limited does not acknowledge any duty of care or responsibility to any other party.

© Cheal Consultants Limited

# TABLE OF CONTENTS

1.	INTRODUCTION.....	4
2.	TONGARIRO NATIONAL PARK MANAGEMENT PLAN 2006-2016 .....	4
3.	TONGARIRO/TAUPŌ CONSERVATION MANAGEMENT STRATEGY 2002-2012 .....	30
4.	TONGARIRO WHANGANUI TARANAKI CONSERVATION MANAGEMENT STRATEGY .....	38
5.	GENERAL POLICY FOR NATIONAL PARKS 2005.....	38
6.	NATIONAL PARKS ACT 1980.....	40
7.	CONSERVATION ACT 1987 .....	42
8.	DOC DESTINATION MANAGEMENT FRAMEWORK.....	44
9.	WORLD HERITAGE STATUS .....	44
10.	NGĀTI RANGI TAI AO MANAGEMENT PLAN 2014.....	52
11.	SUMMARY OF POLICY ANALYSIS .....	54

# 1. INTRODUCTION

Ruapehu Alpine Lifts Ltd (**RAL**) is applying for a new licence to continue to operate the Turoa 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
9. Ngāti Rangi Taiao Management Plan 2014

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

A Cultural Impact Assessment has been commissioned by RAL which will include further consideration of relevant iwi planning documents such as the Ngāti Rangi Taiao 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 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 approximately 2,325m above sea level (**asl**) and does not extend to the peaks of Mt Ruapehu. An expansion to the existing licence area is not proposed. 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 Tāngata 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. A Cultural Impact Assessment has been commissioned and RAL have proposed a Partnership or Relationship Agreement with Tāngata Whenua.

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 a Partnership or Relationship Agreement has been proposed by RAL.



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:**

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. Turoa Ski Area hosts an annual Matariki celebration and are keen to support any future initiatives. Potentially the Cultural Impact Assessment may identify other appropriate ways to recognise cultural values.

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 and RAL. Māori values have shaped the form of the RAL Indicative Development Plans and the proposed licence term.

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 Turoa are currently for upgrades or new infrastructure each with an associated removal of existing buildings or infrastructure. RAL have removed 13 lifts and 6 buildings from the two Ski Areas during the last 20 years and plan to remove two more lifts at Whakapapa during 2016. The majority of removals have occurred at Whakapapa where there has been a longer history of use and development. At Turoa two lifts have been removed and the fuel storage capacity has been significantly reduced by RAL. 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 proposed to be mitigated by pairing proposed infrastructure with removal of existing infrastructure, the proposed Partnership or Relationship Agreement with Tāngata Whenua 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 maintain extensive open space within the Ski Area. 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:

*In general RAL's management of the Turoa 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. 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 is 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 Turoa 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, vegetation monitoring and restoration. Further detail is provided in the ecological assessment from Nicholas Singers appended to the application. Scenic values are provided for and have been assessed by LA4 Landscape Architects. A Cultural Impact Assessment has been commissioned and it is proposed to provide for cultural values through the term structure and a Partnership or Relationship Agreement with Tāngata Whenua. No adverse effects on soil stability and water quality are anticipated. Wastewater is removed from the Maunga to a Ruapehu District Council 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 and included within the TNPMP. 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 Turoa Ski Area is provided for as a legitimate use in the TNPMP. It is the RAL operation and facilities 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 of New Zealand. 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 individuals and groups.

- *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 are modest. Construction effects will be carefully managed and a Works Approval and 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 fifteen years at Turoa and consequently has the appropriate expertise and financial management to operate in a safe and proper manner. Recent replacement projects (such as the Knoll Ridge chalet at Whakapapa) have demonstrated RAL's commitment to investing in high quality infrastructure and architectural design

– appropriate for the environment. A financial assessment has been included in the application appendices.

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

**Comment:**

RAL has also implemented other methods of trying to mitigate cultural effects, such as proposing a staggered term for the licence, proposing a Partnership or Relationship Agreement with Tāngata Whenua, incorporating cultural values into the staff induction programme, sponsorship of kura kaupapa, supporting the Matariki celebrations etc. The full views of Tāngata Whenua are expected to be disclosed through consultation during the application processing and a Cultural Impact Assessment was commissioned in mid-2014.

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 commenced some years ago.

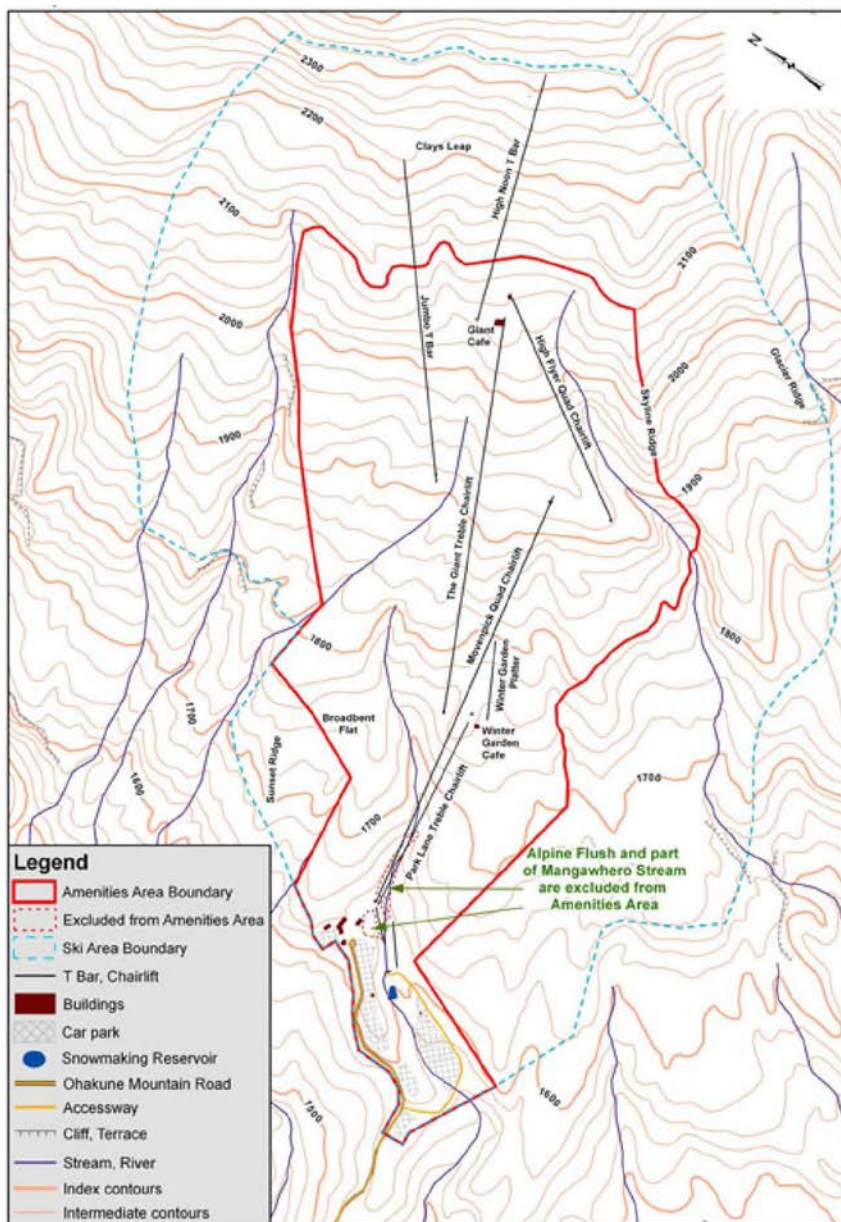
4. *Concessionaire infrastructure should be limited to that essential to visitors' benefit, use and enjoyment of the park. Where concessionaire infrastructure is necessary it should be located within an amenities area, with the exception of skiing-related infrastructure that complies with provisions 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 Turoa staff is located either off the mountain in Ohakune or at Whakapapa Village. RAL have removed lifts and significantly reduced the fuel storage capacity at Turoa. The TNPMP recognises that ski lifts are required outside of the Amenities Areas. The planned indicative projects include the following:

- Movenpick Express Lift – is an upgrade of this existing lift within the Amenities Area;
- Sunset Express Chairlift – a new quad detachable chairlift on a new line to better service the western slopes. It will allow removal of the Jumbo T-bar. Also the Moro T-bar was removed in 2003 in anticipation of the Sunset Express Chairlift installation. Both the existing Jumbo T-bar and the proposed Sunset Express Chairlift are located partially within and outside of the Amenities Area;
- A new chalet will be developed at Blyth Flat, which will allow removal of the current chalet services at the top of the Giant Chairlift. The proposed chalet will be within the Amenities Area;
- The Alpine cafe in the base area and the Snowflake Cafe at Wintergarden will both be extended to provide a 10% to 20% increase in current floor area. Both facilities are within the Amenities Area;
- Increased snowmaking reticulation and capacity.

Currently the High Noon Express Chairlift, Jumbo T-bar and the Nga Wai Heke Chairlift extend beyond the Amenities Area. The Moro T-bar which has been removed also extended outside of the Amenities Area. Within the Indicative Development Plan is the proposed Sunset Chairlift with more than half of the proposed lift within the Amenities Area and the remainder extending beyond it but still within the current Ski Area boundaries. The Sunset Chairlift will replace the Jumbo T-bar which also extends beyond the Amenities Area boundary. Accordingly the current future planning for Turoa does not increase the number of lifts outside of the Amenities Area. Furthermore there are no new standalone buildings (not associated with lifts) that are proposed outside of the Amenities Area. The majority of infrastructure at Turoa is within the Amenities Area which is consistent with the TNMP. Policy 2 of 5.2.1 of the TNMP makes a specific exception for ski lifts outside of the Amenities Area. Accordingly the proposal and the future planning are consistent with the above policy. The below plan shows the Amenities Area and infrastructure as at 2006, which predates the Nga Wai Heke Chairlift.



**Figure 1 – Turoa 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 and linked to the proposed term extensions, 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 winter recreational activities, services for all customer types (e.g. families, overseas tourists, youths etc.), high quality amenities and a high level of customer service. The upgrades outlined in the IDP 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 Turoa Ski Area as 5,500 skiers per day. RAL's current design carrying capacity is significantly below this at 4,800 and with the proposed upgrades it marginally rises to 5,000. 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.

RAL have proposed a Partnership or Relationship Agreement with Tāngata Whenua to provide more Iwi input into future planning. A Cultural Impact Assessment has been commissioned which may recommend other ways of mitigating cultural effects to balance growth with cultural heritage constraints in accordance with objective (b) above.

- 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;

- 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. Ecological and landscape assessments of the Ski Area have been appended.

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 car parks and standalone buildings are limited to existing Amenities 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 Turoa includes various upgrades and replacements including the Sunset Express Chairlift which will be both within and outside of the Amenities Areas, as provided for within the above policy.

The Amenities Area generally encompasses all standalone buildings within the Ski Area and the majority of the chairlifts. The Turoa Amenities Area is located centrally within the Ski Area boundaries and terminates at approximately 2,100m asl. The Ski Area extends to 2,325m asl. Accordingly there is significant area around the perimeter and upper reaches of the Ski Area which is not included in

the Amenities Area. These areas would be relatively inaccessible without some encroachment of infrastructure out of the Amenities Area.

From the policy above it is expected that the Amenities Area was intended to control development such as car 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 TNMP 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 Turoa 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 Turoa. 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 at Whakapapa 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 hire and lessons. Turoa Ski Area provides for beginner, intermediate and advanced 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 2,325m asl is not proposed and therefore is consistent with policy 9 above.

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:**

Currently the Turoa Ski Area does not operate during the summer season.

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.

**5.2.2 Indicative Development Plans for Ski Areas**

*Objectives*

*a To require preparation and maintenance of indicative development plans which provide for the operation of ski areas for approximately ten years and enable efficient consideration of applications made to the department for development works.*

*b To meet the needs of skiers through the appropriate provision of ski area infrastructure and services.*

**Comment:**

RAL regularly prepares Indicative Development Plans in accordance with the objectives and policies of section 5.2.2 of the TNPMP.

### 5.2.3 Base Area Strategies

#### Objectives

- a To concentrate the intense land use of base areas on already-disturbed areas.
- b To ensure that base area developments provide for the efficient flow of ski area visitors and meet their core needs.

#### Policies

- 1 The base area strategies for the three ski areas on Mount Ruapehu will be approved by the conservator prior to any capital works being applied for or approved.
- 2 Beginner ski facilities will be included in each base area strategy, in particular Happy Valley at Whakapapa Ski Area and the Alpine Meadow at Turoa Ski Area.
- 3 Ski area concessionaires will demonstrate that they have actively provided for snow playing activities within ski area boundaries, to minimise conflict with traditional skiing activities. The ski area concessionaire may impose reasonable charges for the provision of infrastructure and services which support snow playing activities.
- 4 At Turoa Ski Area, the alpine flush area should be protected from irreversible damage by human impacts. The department will undertake a comprehensive survey to determine the botanical and landscape values and extent of the alpine flush....
- 5 Should the botanical and landscape survey of the Turoa alpine flush carried out under policy 4 above indicate that the natural boundary of the alpine flush differs from that of the gazetted exclusion from the Turoa Amenities Area, the department will seek to re-gazette the Turoa Amenities Area boundary to correctly show the alpine flush zone exclusion.
- 6 The department will consult with the Turoa Ski Area concessionaire prior to seeking any change to the Turoa Amenities Area boundary.
- 7 All car parks and pedestrian surfaces will be hard-sealed at the time of any development in their vicinity. Each base area strategy will identify development timelines for this work. (This does not apply to Tukino Ski Area.)
- 8 Hard-surfaced areas will be maintained.
- 9 All stormwater from hard-surfaced areas will be collected and processed in line with best practice.
- 10 There will be no migration of imported or contaminated material from hardsurfaced areas during construction or when in operation. Hard control edges will be constructed and maintained on the margins of all hard-surfaced areas.
- 12 No further terrain modification should be approved.
- 13 New developments in the base area should modify a minimum area of natural topography consistent with planned functions. The ski area concessionaires will retain appropriately-qualified consultants to provide advice in this respect.
- 14 All public and private buildings in the base area should be grouped together in an integrated design and, where possible, should be outside the loop road vehicular circulation pattern. Separating base area pedestrian routes from vehicular routes is desirable.
- 15 Base areas will provide public toilets in line with national tourist standards. Water conservation at these sites will be provided for to the best practical extent.
- 16 Construction of car parks in unmodified environments will not be permitted, except where there is an existing written agreement. Further efficiencies in car parking on existing sites will be supported. The car-parking needs for club lodge operations will be taken into account during planning through active consultation with the Ruapehu Mountain Clubs Association.
- 17 On the Ohakune Mountain Road, further carparking may be permitted on existing disturbed sites on the margins of the road where the natural values and character fo the road corridor are not adversely affected.
- 19 Concessionaires will incorporate car park fees into their lift ticket prices.
- 20 Turoa and Whakapapa ski areas should be developed in accordance with their carrying capacities. The constraints to further development, including car parking, road capacity, and natural values on the ski area margins, will be carefully analysed in any application.

21 Where construction and engineering activities for ski area infrastructure are not related to installation or maintenance and could practically be carried out elsewhere, they will be undertaken outside the park.

**Comment:**

The Turoa base area is managed in accordance with Section 5.2.3 above. Alpine Meadow will continue to provide beginner facilities in accordance with policy 2. Snow play areas are available in accordance with policy 3. The top car park is sealed in accordance with policy 7 and all carparks are maintained in accordance with policy 8, 9 and 10. Also in accordance with policy 10, erosion and sediment control methods are employed during any construction activities. Water conserving fixtures are utilised in the buildings and public toilets are available in accordance with policy 15. Construction of carparks in unmodified areas is not proposed. Car parking is not charged at the carpark. RAL's Turoa IDP does not reach the allowable carrying capacity identified in the TNPMP. As much as practicable, components of buildings or structures are partially constructed outside of the Park prior to transport to the site.

5.2.4 Landscape Planning is addressed in the Assessment of Landscape and Visual Effects prepared by LA4 and appended to the licence application.

**5.2.5 Building Development**

*Objectives*

*a To ensure that current and proposed buildings within the ski areas do not affect Tongariro National Park values.*

*b To avoid localised effects of building projects beyond the building envelope.*

*Policies*

*1 Whenever possible, integration of compatible facilities and/or uses under one roof will be required.*

*2 Building development will be concentrated at a minimum number of ski area servicing points.*

*3 Buildings will be designed and sited to harmonise with other buildings and with the natural contour of the site.*

*4 Buildings should not be sited in locations where their profiles would be prominent on the skyline when viewed from a distance. Applications to undertake infrastructure development on ridge-lines should be declined.*

*5 Any building development will provide for car parking (where required) within the project design. This infrastructure will be completed with the building project.*

**Comment:**

All RAL buildings in the Ski Area are of recessive colours in order to minimise landscape effects and ecological assessments and initiatives are undertaken with each project. Accordingly the licence and the proposed future changes are consistent with the objectives of 5.2.5. Car parking within any future upgrade beyond the base area as indicated in policy 5, is not appropriate for obvious reasons and would conflict with other policies of the TNPMP such as 5.2.11. Accordingly parking outside of the base area is not proposed.

**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 visitor experience.

**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.

**5.2.7 Cafeterias and Day Shelter****Objective**

*a To ensure that sheltered public space is available for skiers and other Tongariro National Park visitors at the base areas.*

**Policies**

- 1 Provision of adequate public shelter and cafeteria facilities is required through indicative development plans and base area strategies.*

**Comment:**

Public shelter is available at the base area in accordance with objective (a) above. The licence application is consistent with the IDP in order to provide adequate public shelter and facilities in accordance with policy 1.

**5.2.8 Water Uses and Snowmaking***Objective*

*a To protect water within Tongariro National Park, as far as possible, in its natural state.*

*Policies*

*1 Where possible, water within the general catchment in which it is to be used will be made available for ski area activities. Contamination of this water should not occur unless it is subsequently discharged through a consented and monitored scheme which can ensure discharge of same-state water.*

*2 Where water is taken from one catchment and discharged to a different catchment, the department will ensure iwi are fully consulted prior to any decision on an application. For the purposes of determining catchment of origin, the department will adopt the broad catchment descriptions utilised by Horizons Regional Council and Environment Waikato.*

*3 The use of stream and spring sources of water within ski areas will be considered providing there are no permanent effects on natural ecosystems and the impacts are closely monitored over time.*

*4 Utilisation of low water consumption technology will be required in public toilets, cafeterias, and other public facilities.*

*5 Water takes for snowmaking and water storage will not be provided for outside amenities areas except where no other practical option exists. An assessment by suitably-qualified independent specialists, peer reviewed at the department's discretion, will be required as part of any application.*

*6 Where water storage is required for consumptive uses other than snowmaking, water will be stored underground, within the footprint of existing infrastructure or within approved infrastructure to be constructed.*

*8 Any applications for snowmaking operations will require consultation with adjacent club licence holders.*

*9 Approvals for snowmaking operations should require that all reasonable efforts be made to minimise noise.*

**Comment:**

RAL operates snow making and a water take in accordance with its resource consent from Horizons Regional Council and Works Approval from the Department. Water conserving fixtures are utilised within the RAL buildings in accordance with policy 4. The existing water reservoirs are located within the amenities area in accordance with policy 5, and new reservoirs are not proposed.



**5.2.9 Snow Fencing and Grooming***Objectives*

- a To maximise visitor enjoyment of the ski areas through snow fencing and grooming.*
- b To approve snow management techniques which reduce or eliminate the need for rock grooming.*

*Policies*

- 1 Snow grooming will not disturb ground surface and vegetated environments.*
- 2 Where hazards no longer exist, all snow fences will be dismantled and stored out of sight in an appropriate storage facility.*

**Comment:**

Snow fencing and grooming is undertaken in accordance with existing approvals from the Department and the objectives and policies of 5.2.9.

**5.2.10 Slope Modification and Rock Grooming***Objectives*

- a To meet the needs of skiers through the provision of safe ski runs in identified areas.*
- b To minimise rock grooming to that which is essential for the operation of the ski areas.*

*Policies*

- 1 Rock grooming will be allowed only for significant safety reasons or where, under average snow conditions, appropriate management advantages can be demonstrated.*
- 2 Rock grooming and slope modification may only be undertaken in line with an indicative development plan agreed with the concessionaire.*
- 3 In processing applications for rock grooming and slope modification the department will consider whether:*
  - the obstruction is in an intensively used beginners' area;*
  - the obstruction is in a restricted and congested area of a main ski run (particularly if this limits capacity of that run as a whole);*
  - the obstruction is on a main trail identified and approved in the concessionaire's indicative development plan;*
  - the obstruction is on approved surface lift lines;*
  - the obstruction is within an area of loose surface material where blasting is not required;*
  - there would be little or no vegetation modification; and*
  - proposed techniques would not cause any environmental impacts beyond the area of modification.*
- 4 Any slope modification or rock grooming application over 100 cubic metres will require an environmental impact assessment in line with section 5.2.4 Landscape Planning.*

**Comment:**

Ski runs are constantly monitored and reassessed and records of accidents kept and reviewed. Rock grooming is kept to an absolute minimum in accordance with objective (b).

**5.2.11 Vehicular Access Onto Ski Areas***Objective*

*a To confine the use and effects of over-snow and off-road vehicles to ski areas and to core ski area management purposes.*

*Policies*

*1 Concessionaires' use of over-snow vehicles will be restricted to within the ski area boundaries, in line with the Tongariro/Taupō Conservation Management Strategy.*

*2 Movement of concessionaires' vehicles over the ski area in summer will be limited to approved routes and will only be permitted on an individual controlled basis, in line with the CMS.*

*3 The department may require ski area concessionaires to undertake noise assessments and monitoring with a view to modifying use should this matter be identified as a concern.*

*4. The department will consider applications to undertake limited over-snow passenger transport service by licensed ski field operators:*

*a) at Tukino within the current ski area boundaries; and*

*b) at Turoa and Whakapapa within the current ski area boundaries where services will be limited to transport to and from club lodges, ski area buildings and during organised events.*

*5. Approved concessionaires will be required to avoid effects relating to noise levels, hours and location of operation and type of vehicle.*

**Comment:**

The existing access and practices are consistent with 5.2.11 objectives and policies.

**5.2.12 Ski-Lift Construction and Maintenance***Objective*

*a To undertake lift construction and maintenance in a way that minimises adverse impacts on natural resources, historical and cultural heritage, and park visitors.*

*Policies*

*1 Concessionaires will adhere to all statutory requirements, to the Tongariro National Park Bylaws 1981 and to the Approved Code of Practice for Passenger Ropeways in New Zealand in the construction and maintenance of all ski-lifts and tows in their licence areas.*

*2 When components or structures are dismantled for maintenance, that maintenance should be undertaken inside a lift maintenance facility or outside the park, where at all practical.*

*3 No sandblasting, spray-painting or use of contaminants should be undertaken in a way which enables those elements to enter the general environment.*

**Comment:**

The lifts indicated in the IDP have been proposed with consideration for cultural, landscape and ecological values and accords with objective (a) above. Detailed lift design and analysis of effects will be undertaken prior to each project to allow any adverse impacts to be minimised. RAL adhere to their legal obligations in relation to the lifts in accordance with policy 1. Maintenance is undertaken outside of the park where practical in accordance with policy 2. A condition of the licence consistent with policy 3 is acceptable to RAL.

**5.2.13 Public Safety***Objectives*

*a To take all reasonable precautions to provide for the safety of ski area visitors.*

*b To promote safe and responsible attitudes to use of ski areas through educational and interpretive means.*

*Policies*

*1 Each concessionaire will be required to prepare, and annually review prior to each season, a ski area safety plan for approval by the department. This plan will cover lift-serviced terrain promoted by the concessionaire. It will be received by the department prior to the beginning of the ski season to allow peer review and assessment.*

*2 Ski area concessionaires will be required to have regular independent audits of ski area safety plans.*

*3 Close liaison will be maintained with all organisations, both public and voluntary, which have active involvement in visitor safety.*

*4 Every effort will be made to assist and co-operate with search and rescue authorities and other authorities having responsibilities for public safety and health.*

*5 The department will maintain the Eruption Detection System to provide an early warning volcanic hazard programme for Mount Ruapehu. Ski area concessionaires will contribute to the cost of this system on an agreed basis.*

*6 Concessionaires will provide emergency public shelter in appropriate locations on the ski areas. Club lodges at Tukino and Whakapapa will be available for emergency accommodation.*

*7 All ski area facilities will meet appropriate public health standards.*

**Comment:**

Visitor and employee safety is of paramount importance to RAL and all reasonable safety precautions are taken. Safe and responsible attitudes are promoted to visitors with signage and communicated through the RAL website. Training for staff in safety procedures and emergency responses is also undertaken. Operations are undertaken in accordance with all the requirements of section 5.2.13 above.

**5.2.14 Public Access to the Ski Areas***Objective*

*a To maintain public access to those parts of Tongariro National Park that are ski areas.*

*Policy*

*1 Freedom of public access to the ski areas will be maintained unless restrictions are necessary to ensure the safety and protection of the public and/or for management of road congestion. The department will seek bylaws to achieve certainty in this matter within one year of this plan becoming operative.*

**Comment:**

Freedom of public access to the Ski Area has been maintained in accordance with section 5.2.14 of the TNPMP.

**5.2.15 Summer Use***Objectives*

- a To ensure that ski areas are used for their primary purpose, which is winterbased snow activities.*
- b To allow summer activities which utilise winter infrastructure without additional requirements.*

**Comment:**

The licence is consistent with 5.2.15 objectives as it provides for the primacy of the winter-based activities. Currently Turoa Ski Area is not open during summer.

The above objectives and policies are the most relevant to the Ski Area as they are specific to the Ski Areas. The TNPMP includes other objectives and policies which can also be considered relevant.

**2.4 Park Values**

*The Park Values of section 2.4 are:*

- 2.4.1 World Heritage*
- 2.4.2 Cultural Heritage*
- 2.4.3 Park Heritage*
- 2.4.4 Physical Environment*
- 2.4.5 Scenic and Landscape Values*
- 2.4.6 Flora and Fauna*
- 2.4.7 Recreation Use*
- 2.4.8 Economic Significance*

**Comment:**

The World Heritage value is addressed further in this report. Cultural Heritage will be considered through Iwi consultation and the commissioned Cultural Impact Assessment. The Ski Area is reliant on the Physical Environment for elevation, climate and landform suitable for snow sports. The Scenic and Landscape Values are assessed for each proposal including a specialised landscape and visual effects assessment prepared by LA4 for the licence application. Likewise an ecologist's assessment prepared by Nick Singers, assesses the effects on flora and fauna. Recreation Use is supported by the Ski Area and the Economic Significance is immense for the region. The Ski Area is consistent with the Park Values and is even specifically provided for within other sections of the TNPMP.

**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.*

*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.*

### 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.

### 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.

### 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 Tongariro/Taupō 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.

### 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.

### 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.

*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.*

*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.*

*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.*

*11 To honour existing legal agreements*

*All existing legal agreements will be honoured in the management of Tongariro National Park. These include concessions for ski areas, club and commercial accommodation, transport, scientific research, monitoring sites, and a range of recreation and use activities. No change can be contemplated to these existing agreements except where conditions within the agreements permit or by the mutual consent of the parties. All parties to these agreements are either bound or affected by this plan.*

**Comment:**

The TNPM was prepared subsequent to the National Parks Act 1980, General Policy for National Parks and Conservation Management Strategy and therefore should be consistent with the relevant provisions of those instruments. The IDP accords with Key Management Philosophy (KMP) 3. KMP 4, 5, 7 and 8 will be further addressed through Iwi consultation and the CIA. The existing and proposed infrastructure is the minimum of what is required for operating the Ski Area to the expected standard. The landscape and visual effects due to the extent of infrastructure has been considered in the report from LA4 and found to be acceptable. Accordingly the licence is consistent with KMP10. The legal obligations of the licence have been upheld by RAL in accordance with KMP11.

**General Objectives and Policies:**

The General Objectives and Policies cover a broad spectrum of matters, which are considered specifically in the Ski Area section of the TNPMP.

**4.4.2.6 Aircraft***Objectives*

*a To minimise the adverse effects of aircraft on Tongariro National Park users.*

*b To minimise the adverse effects of aircraft on natural resources, historical and cultural heritage, and national park values.*

*c To minimise the effects of aircraft used for legitimate park management purposes.*

**Comment:**

Aircraft can be useful or necessary in on-mountain construction by avoiding the need for new vehicle tracks, accessing difficult terrain and shortening the construction time period to allow completion prior to the next ski season. This will be assessed in detail at the time of Works Approval applications and conditions imposed which align with the relevant above policies and objectives.

### 3. TONGARIRO/TAUPŌ CONSERVATION MANAGEMENT STRATEGY 2002-2012

The Tongariro/Taupō 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.



**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:**

There are no known archaeological sites within the Ski Area however the entire Maunga is of cultural significance. A Partnership or Relationship Agreement with Tāngata Whenua is proposed to provide greater input from Iwi into management and proposals which may affect cultural values on the Maunga.

**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 no development beyond 2325m asl and no extensions to the existing Ski Area boundaries are proposed. RAL also wish to foster a closer partnership with Tāngata Whenua. Accordingly the proposal is consistent with Principle 3 of the CMS.

**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 5,500. The RAL planning for the next 10 years (including upgrades) has a design capacity of 5,000. The Ski Area operation does not cause significant conflict with other visitors and provides important access and recreational facilities for visitors. RAL currently does not have overnight accommodation within the Ski Area 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. The proposal is consistent with Principle 4 of the CMS.

**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:**

Principles 5 and 6 are not considered directly relevant to the application. The Ski Area is a recreation commercial use and Principle 5 seeks to limit non-recreation commercial use – hence it is not relevant. Principle 6 is concerned with the level of advocacy the Department of Conservation undertakes.

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 5,000 and the TNPMP identifies the comfortable carrying capacity as 5,500 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 (l). Accordingly the proposed licence is consistent with the above objective and implementation methods of the CMS.

### **3.1.6 Restoration/Rehabilitation**

#### **Objective**

*To restore/rehabilitate disturbed areas to a self-perpetuating original condition where natural processes continue as free from human influence as possible.*

#### **Comment:**

The CMS covers a wide area and given that the Ski Area is gazetted as such with an Amenities Area, it is unlikely that the above objective was intended for such an area. Where infrastructure is removed the disturbed area is restored to appear natural. Accordingly the proposal is consistent with 3.1.6 of the CMS.

### **4.1.2 He Kaupapa Rangatira**

*Principles of the Treaty of Waitangi and Objective 1 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 also. Further consultation between RAL and Iwi is anticipated and a Cultural Impact Assessment has been commissioned. 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 and is subject to 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 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. Meetings have been held and further meetings are anticipated. Also a Cultural Impact Assessment was commissioned in mid-2014.

#### **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.

#### **4.5.10 Management Objectives**

*The following objectives must be read in conjunction with the principles, objectives and implementation provisions contained in parts II and III. Together these components are the key determinants in decision making.*

- 1 To achieve an integrated approach to protect the natural and historic values of all land in Tongariro-Ruapehu, regardless of tenure, in co-operation with other landowners and local authorities.*
- 2 To manage the pristine zone of Tongariro/Ruapehu giving due priority to its inherent cultural and intrinsic values.*
- 3 To achieve, through advocacy, greater protection of areas and habitats of high natural and historic value on private land, firstly through liaison and co-operation with other landowners and secondly through statutory planning processes.*
- 4 To manage Tongariro National Park in accordance with the Tongariro National Park Management Plan.*
- 5 To control plant pests, including heather (*Calluna vulgaris*), and to eliminate *Pinus contorta**

6 To protect the soil and water conservation values of other areas, by (a) advocating the protection of riparian vegetation, and (b) advocating the protection of remaining forested catchments through statutory and non-statutory processes.

7 Where privately owned land adjoining Tongariro National Park is for sale, to consider the appropriateness of its addition to the national park. – Not applicable

8 To continue the management of the Karioi Rahui on the flanks of Mt Ruapehu, to provide for the integrated management of natural resources utilising expertise of Ngati Rangī and the broader Ruapehu District community natural and historic value on private land, firstly through liaison and co-operation with other landowners and secondly through statutory planning processes.

11 To undertake surveys and research to gain a better understanding and knowledge of natural and historic values on and off public conservation land.

**Comment:**

The Ski Area does not contain a pristine zone as identified in Map 9 of the TNPMP and referenced in management objective 2. RAL steam clean machinery before transporting to the Park during construction activities to prevent weeds entering the Park in accordance with objective 5. Projects avoid disturbance to riparian vegetation in accordance with management objective 6. In accordance with management objective 11, the assessments commissioned by RAL have added to the knowledge of natural values of the Ski Area.

## 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/Taupō 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**

4.5(b) Activities which diminish the quality of scenic, geological (including geothermal), soil and landform features and other abiotic diversity within national parks should be avoided.

7(a) National parks will, as far as possible, be preserved in their natural state.

7(b) Management for risks from natural hazards in national parks:

i) should be undertaken with minimal interference to natural processes, and national park values; and

ii) will include an assessment of the hazards and the associated risks to people, places, taonga and property.

7(e) Natural hazard risk assessment will be a key component of national park planning, including the location and construction of all facilities in national parks.



- 7(f) Preference will be given to hazard mitigation that does not require structures to be built inside the national park.
- 10.1(d) The Department, and concession and other authorisation holders, should monitor the effects of their activities on national park values, and on the benefit, use and enjoyment of the public, including public access, so as to inform future management decisions.
- 10.1(e) Concessionaires will be responsible for the safe conduct of their operations, including the safety of staff, clients, contractors, and the general public, and for compliance with relevant safety standards and legal obligations.

**Comment:**

The Ski Area is provided for within the Park and its planning framework without diminishing the quality of features. Hazard assessment and monitoring is undertaken by both DOC and RAL on different levels in accordance with 7 above. RAL has commissioned various reports over recent years to assess effects in accordance with 10.1(d). Safety is assessed in relation to 5.2.13 of the TNPMP.

**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. Turoa 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 TNPM 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 Ohakune Mountain 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.

**15 Amenities areas**

- (1) *The Minister may, on the recommendation of the Authority made in accordance with the management plan, by notice in the Gazette, set apart any area of a park as an amenities area, and may in like manner revoke any such setting apart.*
- (2) *While any such area is set apart, the development and operation of recreational and public amenities and related services appropriate for the public use and enjoyment of the park may be authorised in accordance with this Act and the management plan.*
- (3) *The principles applicable to national parks shall, notwithstanding section 4, apply only so far as they are compatible with the development and operation of such amenities and services.*

**Comment:**

Much of the Ski Area is an official Amenities Area as provided for in Section 15.

**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) 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 25 year term with one ten-year extension and five five-year extensions is the value of infrastructure inside the licence area and the term required to realise the financial gain from the infrastructure and its maintenance and necessary upgrades. This is further discussed in the application report section 2.3 and the appended financial assessment.

## 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, 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. 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 infrastructure at Turoa includes two water reservoirs and a reticulation system which enables snow making to provide more consistent snow coverage and to counter the potential effects of global warming and the prior intention to extend the Ski Area to higher altitudes. 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.
- Cultural awareness training for RAL staff.
- Architectural design of buildings to respond to landscape values.
- 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.
- 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)<sup>1</sup> 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]*

<sup>1</sup> 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 Ski Area was in existence at the time the Park was inscribed on the World Heritage list. 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: *overall the landscape and visual effects of the proposed IDP projects will be no more than minor when considered in the context of the existing landscape and visual environment.* 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<sup>2</sup>:**

*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.*
- *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.*

<sup>2</sup> IUCN report is appended

- *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 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 and licence renewal, 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 proposed term of the licence has been designed specifically to address concerns raised by Tāngata Whenua during consultation.

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 was commissioned in mid-2014 and a Partnership or Relationship Agreement between RAL and Tāngata Whenua has been proposed by RAL.

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 Turoa Ski Area.

## **10. NGĀTI RANGI TAI AO MANAGEMENT PLAN 2014**

The Management Plan outlines issues, objectives and policies for various topics. The Papa-tū-ā-nuku Chapter covers mining and quarrying, subdivision and development, road works and earthworks, soil contamination, erosion and sedimentation, land use and waste. Another relevant chapter is Tangaroa-i-te-wai-māori (freshwater) with water quality, stormwater, discharges, riparian margin management, wetland drainage, water takes, diversion and unnatural mixing of catchments, culverts, weirs and dams and river and drain clearance. The Rūaumoko chapter specifically addresses natural hazards at Mt Ruapehu.

The Rūaumoko chapter objective is:

*The natural processes of Ruapehu as a volcano are not restricted by human intervention.*

The policies are:

*6.1.1 Ruapehu Maunga will not be altered or tampered with in any way as part of any management strategy as a means to divert or withhold the flow of a lahar.*

*6.1.2 No new buildings will be erected in known lahar paths.*

*6.1.3 Monitoring and management of natural events in connection with Rūaumoko will involve Ngāti Rangī.*

*Matua te Mana*

*Objectives:*

*- The use of Ruapehu is managed in a way that adheres to the values and guiding principles of Ngāti Rangī, including the protection of the peaks and TeWai-a-Moe.*

*- Rubbish and waste management (including human waste) on the maunga is exemplary and leaves Koro in a pristine state.*

*- Ruapehu's glaciers will be protected, inasmuch as it is possible to do so.*

*- Filming activities are only undertaken in line with Ngāti Rangī values, principles and processes.*

*Policies – Tourism and Recreation*

*7.1.1 Te Wai-a-Moe and the peaks are sacred. Access to this area should be for significant cultural and scientific reasons only.*

*7.1.2 As an overarching principle, Ngāti Rangī considers it inappropriate and unacceptable to expand or increase infrastructure on the maunga.*

*7.1.3 The management of all facilities located on the southern side of Ruapehu must ensure:*

*a. human waste is treated in a manner consistent with Ngāti Rangī values, not left on the maunga to decompose or be discharged in any form to the maunga*

*b. all paints and chemicals used must be sourced under the 'Environmental Choice NZ' standard or equivalent*

*c. operational and maintenance activities do not result in paint or chemicals reaching the ground or waterbodies.*

*7.1.4 Rubbish (especially smoke butts) will be managed by all parties, including the Department of Conservation and permit holders (formerly 'cessionaires'), to ensure Ruapehu is maintained as a pristine environment. Ngāti Rangī considers that there is no excuse for any litter on the maunga.*

*7.1.5 The maunga becomes smokefree by 2020.*

*7.1.6 Alcohol should only be consumed in designated areas as agreed to by Ngāti Rangī. A total ban should be considered.*

*7.1.7 No further reservoirs will be allowed on Ruapehu.*

*7.1.8 As part of track maintenance, Department of Conservation must contact Ngāti Rangī Trust if any tōtara, miro, tōī, neineiriki or other taonga species are to be removed.*

*7.1.9 Ngāti Rangī will be fully involved in the decisions on any new tracks or cycle routes on and around Ruapehu.*

*7.1.10 Any road works and earth works occurring on Ohākune Mountain Road will identify appropriate depository sites in consultation with the Department of Conservation and the Ngāti Rangī Trust for all excess material as a result of slips or road maintenance. No naturally occurring material from the mountain will be removed off the mountain under any circumstances without consultation with Ngāti Rangī.*

The Turoa Ski Area infrastructure is not within lahar paths. Conditions, either of the licence or the Partnership Agreement or both, are anticipated to address waste management. All wastewater is removed from the Ski Area for treatment at the Council wastewater plant in Ohakune. The proposed licence retains the status quo of infrastructure and the IDP signals modest upgrades and

replacements of infrastructure. In accordance with 7.1.7 the IDP signals the proposal for an additional water take instead of an additional water reservoir.

The relevant rules for Tourism and Recreation on the Maunga are as follows:

*7.1.3.1 No consent shall be granted to discharge human waste in any form to the maunga or to leave human waste on the maunga to decompose. It will be removed from the maunga and treated in a manner consistent with Ngāti Rangī values.*

*7.1.3.2 All paints must meet the Environmental Choice NZ standard or equivalent.*

*7.1.3.3 No consents shall be issued by any consent authority that allow discharges of paint or contaminants to ground or water on the maunga.*

*7.1.4.1 No litter is to be left on the maunga.*

*7.1.7.1 No further reservoirs will be consented by consenting authorities.*

Turoa can comply with the Tourism and Recreation rules of the Taiao Management Plan. All human waste is removed from the maunga. Additional water is required to meet the snowmaking requirements and instead of constructing another reservoir RAL have signalled their intention to apply for a new water take after consultation with Iwi. The management of litter is ongoing maintenance and it is expected that this may be incorporated into the Partnership Agreement with Iwi. Regardless, the management of litter is expected to be required in the licence conditions.

## 11. 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. The TNPMP was also strongly influenced by the World Heritage status of the Park. Consequently, the licence is also well aligned with these statutes and policy documents. The licence is also supported by DOC's Destination Management Framework.

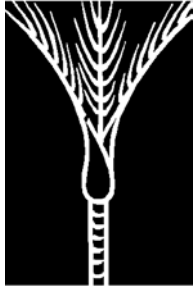
RAL have successfully responded to the challenges of operating within a World Heritage site and operate in a manner that befits the area's status. Overall, there are no policy reasons to decline the licence application and policy support for the proposal exists.

**ELLA TENNENT-BACHER**  
**CHEAL CONSULTANTS LTD**  
**December 2015**



## **Appendix 3**

Assessment of Landscape  
and Visual Effects – LA4,  
January 2014



LA4

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

---

March 2014

LA4 Landscape Architects  
PO Box 5669, Wellesley Street  
Auckland 1141

**Landscape and Visual Effects Assessment  
Quality Assurance Statement**

Prepared by:



Director

---

Reviewed by:



Director

---

Approved for Issue by:



Director

---

Status: Draft

Date: March 2014

## Table of Contents

1.0	<b>Introduction ...</b>	...4
2.0	<b>Assessment Methodology ...</b>	...4
3.0	<b>Indicative Development Plan...</b>	...5
4.0	<b>The Landscape Context ...</b>	...6
5.0	<b>Assessment of Landscape and Visual Effects ...</b>	...11
6.0	<b>Statutory Context ...</b>	...14
7.0	<b>Conclusions ...</b>	...20

**Appendix 1:** Turoa Ski Area: Existing and Proposed Developments

**Appendix 2:** Turoa Ski Area: Existing and Proposed Developments

**Appendix 3:** Turoa Ski Area: 2010

**Appendix 4:** Turoa Ski Area Trail Map

# **TUROA SKI AREA – MT RUAPEHU**

## **Indicative Development Plan**

### **Assessment of Landscape and Visual Effects**

---

#### **1. INTRODUCTION**

- 1.1 In July 2011, Ruapehu Alpine Lifts Ltd (RAL) prepared a draft 'Indicative Development Plan' (IDP) for the Turoa 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 the indicative location and scale of the proposed future developments.
- 1.2 LA4 Landscape Architects have 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 proposals within the IDP 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 Turoa site and surrounding Tongariro National Park area were carried out in February 2014.

#### **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 in February 2014. The landscape character, visual and amenity values were identified and outlined and a photographic record of the ski area 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 proposals.
- 2.5 An analysis of the existing landscape and natural character of the ski area 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 IDP planning period include:
- Movenpick Express – an upgrade of this lift from a fixed grip to a detachable chairlift, on the same line and using the same tower foundations;
  - Sunset Express – a new quad detachable chairlift on a new alignment to the west of the Jumbo T-Bar which will be removed;
  - Terminal buildings associated with the above facilities;

- Blythe Chalet – a new 400-seat chalet at Blyth Flat which will allow removal of current chalet services at the top of the Giant Chairlift;
  - Minor addition to the Snowflake Café and removal of the separate toilet block currently in the Wintergarden area;
  - An extension to the Alpine Café in the base area; and
  - Snowmaking reticulation, including minor terrain modification.
- 3.2 The proposed Sunset Express will extend the lift configurations further to the west of the current infrastructure, however it will be within the existing ski area boundary. The Movenpick Express will be on the same alignment as existing and using the same tower foundations. The High Flyer chairlift was relocated and extended in 2013 and renamed the Nga Wai Heke chairlift.
- 3.3 The Blythe Chalet and 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, coloursteel 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.
- 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.

## Turoa Ski Area

- 4.7 Turoa Ski Area is located on the south-western slopes of Mt Ruapehu and has Australasia's longest vertical descent and New Zealand's highest lift. It has more than 43 trails spread across 496 hectares. The ski area extends from the base area at approximately 1632m ASL to the High Noon Express terminal building at approximately 2322m ASL.
- 4.8 The landform is comprised of a series of deep gullies, valleys, prominent ridgelines, spurs, peaks and relatively open areas. The ski area follows a relatively well defined landscape boundary defined by Mangaturuturu Glacier to the west and Glacier Ridge and Mangaehuehu Glacier to the east. The landform rises steeply up to the northeast behind the ski area towards the peaks that surround Crater Lake – Taurangi (2797m), and Paretetaitonga (2751m).
- 4.9 Access to the ski area is via Ohakune Mountain Road, a 16 kilometre long sealed road that winds up through the extensively vegetated mountain beech forest and associated indigenous understorey. Turoa has been extensively developed since the mid-1960's. A number of buildings and facilities are located at the base of the ski area including ski area administration offices, Alpine Café and bar, retail shop, rentals, ticketing, staff rooms, public shelter and first aid facilities. The terminus buildings for the Movenpick and Parklane chairlifts are located at the base area. The beginner slopes with platter lifts are also located in this area along with large sealed car parking areas.
- 4.10 The ski area itself comprises a number of buildings and structures including the Snowflake Café located at the top of the Parklane Chair, the Giant Café at the end of the Giant Chair, the CAT shed building, chairlift terminals, chairlifts, T-Bars, lift lines, toilets and servicing facilities and structures. There is one small club lodge below the junction of the ski area loop road belonging to the Massey University Alpine Club Hut. A large water reservoir is located just below Clarry's Track.
- 4.11 Frost-heave and mud action have prevented widespread plant establishment. Vegetation throughout the ski area and adjoining terrain is sparse and typically restricted to sheltered sites such as leeward slopes, the base of lava outcrops, and gullies. On the shallow slopes of the lower ski area the vegetation is more prevalent, predominantly with tussock species.
- 4.12 In contrast, the Turoa alpine flush and upper Mangawhero Stream contain considerably more diverse assemblages of plant species in comparison with the surrounding stonefield areas. The Turoa alpine flush is a small area where a continuous supply of spring water has allowed the accumulation of peaty humus in a series of sedimentation plateaux. With a high level of nutrient supply in the spring water and variations in the degree of water immersion of plants, this produces relatively luxuriant and diverse alpine wetland vegetation associations.
- 4.13 The upper Mangawhero Stream area contains an assemblage of stream-side wetland flora with plants more commonly found throughout stonefield areas. Common alpine species such as inaka, bristle tussock, mountain daisies, wipcord hebe, and shrub senecio grow alongside mountain buttercup and bog mountain daisy.





**Photograph 1:** View towards Mt Ruapehu from State Highway 49



**Photograph 2:** View towards Turoa from Ohakune Mountain Road



**Photograph 3:** View from the Movenpick Chair looking across the ski area



**Photograph 4:** Looking towards the upper slopes



**Photograph 5:** View from the base area in winter looking towards the upper slopes

- 4.14 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.

## **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. Assessments of landscape effects therefore investigate the likely nature and scale of change to landscape elements and characteristics.
- 5.3 The direct physical effects of the proposed developments on the landscape will result from construction earthworks. The earthworks required for the chairlift

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 Jumbo 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.
- 5.6 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**

- 5.7 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.
- 5.8 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. While the proposed Sunset Express will introduce a new chairlift on the western slopes, it will replace the existing Jumbo T-Bar and the Moro T-Bar that was removed in 2003. The Moro T-Bar was located further west than the proposed Sunset Express, resulting in concentrating the developments within the central corridor of the ski area. While the new chairlift extends further west than the existing Jumbo T-Bar, when viewed in the context of the existing ski area and wider mountain landscape, the additional effects will be entirely acceptable.

- 5.9 The scale and extent of change envisaged by the proposed developments 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**

- 5.10 Natural character relates to the degree of 'naturalness' or modification of a landscape. Assessments 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.

- 5.11 The natural character of the immediate surrounding area has been reduced to a degree in the past through development of the ski area and the resulting modifications in terms of earthworks, 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.

- 5.12 The natural character of the ski area has been modified with the existing chairlifts, T-Bar towers, lifts, lift operator shelters and earthworks. 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.

- 5.13 The existing Jumbo T-Bar is to be removed and replaced with the Sunset Express – a new quad detachable chairlift to be located on the western slopes. The terminal buildings for the Sunset Express will be approximately 300m<sup>2</sup> (upper terminal) and 650m<sup>2</sup> (lower terminal). The Movenpick Express is to be upgraded to a detachable chairlift on the same alignment utilising the same tower foundations, but with new terminal buildings and foundations. A new café is to be built at Blyth Flat on the gently sloping ground and in conjunction with the new terminal buildings will result in a greater scale of built development. The cafe building is to be constructed on a relatively flat area and will require minimal earthworks. In terms of patterns on the landscape, the replacement of the Jumbo T-Bar will result in reduced modification to the ground surface – without the need for a groomed track along the lift alignment. The existing ground under the T-Bar will be reinstated to a more natural state.

- 5.14 The proposed developments will remain consistent in scale, form and appearance with the existing ski area infrastructure. The extent of the new developments will be very localised and not of a scale to have a significant cumulative effect on degrading the scenic qualities and natural character values of the wider area.

### **Visual Effects**

- 5.15 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 proposed development, 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 proposed development may bring, specifically in relation to aesthetic considerations and visual character and amenity.

### **Visual Catchment and Viewpoint Selection**

- 5.16 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 ski area and surrounds and largely restricted to the immediate environs of the ski area. Proximate views will be gained from within the ski area environs and viewed within the context of the existing ski area infrastructure. Clarrys and Old Blythe Tracks traverse the ski area and trampers will be exposed to views.
- 5.17 Distant views towards parts of the mountain will be obtained from State Highway 4 to the west and SH49 to the south. However, at distances in excess of 10km and 20km away, the proposed developments would be extremely difficult to pick out from the surrounding landscape, both during summer and winter months.
- 5.18 Views towards the mountain from SH1 (Desert Road) are screened by the intervening ridges and spurs. Views from Ohakune Village are from in excess of 15km, and again it would be difficult to see any development. Driving up Ohakune Mountain Road towards the ski area, views are screened by the dense beech forest and orientation of the road until approximately 3km from the base area.
- 5.19 The viewing audience will therefore largely comprise recreational users of the mountain – skiers, trampers and climbers; visitors to the mountain utilising the base area facilities; scenic flights; and distant viewers from the road network.

### **Visual Effects Summary**

- 5.20 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 ski area; visual character of the backdrop behind the ski area; visual character of the landscape between the viewer and the ski area; and orientation of the proposed developments to the viewer.
- 5.21 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. Weather conditions also have a significant effect on the visibility of the ski area. The mountain landscape is constantly changing on both a daily and seasonal basis. Light levels, sun, solar angle, shade, low cloud, rain, snow and summer haze can screen the ski area to varying degrees.
- 5.22 Views of the chairlifts, terminal buildings and Blythe Flat Cafe will be highly variable for the viewing audience – views will be lessened by distance, intervening landforms, backdrop landform, land cover characteristics, topography and weather conditions.
- 5.23 During the summer months the lift towers, terminal buildings and Blythe Flat Cafe will blend into the surrounding rocky landform due to their proposed recessive colours and materials. Blythe Flat comprises a broad basin with very limited

visibility from outside of the immediate area. 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.

- 5.24 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 Movenpick Express chairlift is replacing the existing ski lift lines in a similar configuration. The Sunset Express, will introduce a new chairlift on the western slopes, however it will result in the removal of the Jumbo T-Bar and will also provide some replacement uphill capacity that was reduced with the removal of the Moro T-Bar in 2003. This Moro T-Bar was located further west than the proposed Sunset Express. As the Movenpick Express and Sunset Express chairs are detachable they will be stored when not in use during summer in the lower terminal building, thereby reducing the visual effects.
- 5.25 There will be minimal effect on the landscape values of the area resulting from the snow guns. The snow guns are of relatively small dimensions and are only in place during the ski season and therefore of a temporary nature. Snow guns are a familiar sight within the ski area environs, particularly now with the variable winter conditions and later onset of snow.
- 5.26 There will be no lighting associated with the new lift lines for early morning de-icing. The terminal buildings will have internal lighting as is the case for the existing buildings.
- 5.27 While the terminal buildings and café will result in additional built structures they are not likely to appear incongruous in the context of the ski area. Overall the visual effects of the proposed IDP 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;*
- 6.3 Section 7 outlines other matters which require particular regard relevant to this assessment including:
- c. The maintenance and enhancement of amenity values;*
  - f. Maintenance and enhancement of the quality of the environment;*

### **Comment**

- 6.4 The IDP proposals will not adversely affect the outstanding natural features of Tongariro National Park. The proposals are within an existing ski area and are an appropriate development in line with the existing ski area infrastructure. The proposed Sunset Express chairlift is replacing the Jumbo Express T-Bar and Moro T-Bar (removed in 2003). This will cumulatively result in fewer structures

overall and brings the structures into a more central corridor. In comparison to what existed in 2002, these proposals will have reduced adverse effects on amenity values. The proposed terminal buildings and café developments will be architecturally designed to a high standard, to complement the existing mountain character and not detract from the landscape and amenity values. The quality of the environment will be maintained, as the proposed developments are similar in form and scale to existing.

### **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, lift towers and café development 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 and café buildings will be architecturally designed to reduce any potential adverse effects of development and the plans assessed in regards to landscape and visual effects.

#### **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, lift towers, café and snow making reticulation will continue to be located within the ski area boundaries. The new Movenpick Express chairlift will follow the same alignment as the existing chairlift and will have a similar number of lift towers. Redundant structures will be removed in accordance with policy 3 of 5.2.4 above. The detachable chairlift will result in reduced visual effects through storage of the chairs within the terminal building during the summer months and 'on-demand' during the ski season. While the new Sunset Express chairlift is proposed on the western slopes, it will be offset by the removal of the Jumbo T-Bar and Moro T-Bar previously removed. The overall outcome results in the lifts being more centralised. The terminal buildings and café 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 Turoa 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. The recreational values will be enhanced with the addition of the Sunset Express chairlift providing easier access to the western slopes of the upper mountain.

### **Ruapehu Operative District Plan**

- 6.12 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.*

- 6.13 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**

- 6.14 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, café, terminal buildings and snow making reticulation will have an impact on the mountain landscape, they will be viewed in the context of the surrounding ski area infrastructure.

#### **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.*

6.15 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**

6.16 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 Movenpick Express towers follow a similar alignment and number as the existing chairlift and structures that they are replacing. While the Sunset Express chairlift will introduce a new lift structure into the western slopes, this will be offset by the removal of the Jumbo T-Bar, which will result in reduced modification to the ground surface – without the need for a groomed track along the lift alignment. 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.

6.17 The Tongariro National Park is identified as an outstanding natural feature and landscape (ONFL) in the District Plan. 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**

- 6.18 The IDP proposals are an appropriate activity and will not adversely affect the outstanding natural features and landscapes. The chairlifts are to be located within the existing ski area and will be viewed in the context of the existing ski area infrastructure. The Sunset Express chairlift is replacing two T-Bar lifts and is located further within the ski area than the Moro T-Bar's location.
- 6.19 The scale and grandeur of the overall mountain will result in the proposed developments 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 snowmaking.
- 6.20 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'*.<sup>1</sup>

## **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 proposals outlined within the Turoa Indicative Development Plan 2011. There is a distinction between the visibility of built structures and any visual effects they may create. While the chairlifts, cafe 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 projects can be visually accommodated within the alpine landscape without adversely affecting the character, aesthetic value and integrity of the wider environment.
- 7.3 The indicative developments are generally concentrated to within the central wide corridor of the ski area terrain, leaving the outlying terrain and glacial landforms free of built structures. 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 For the above reasons it is my opinion that overall the landscape and visual effects of the proposed IDP projects will be no more than minor when considered in the context of the existing landscape and visual environment. Detailed visual

---

<sup>1</sup> Ecological Assessment of the Turoa Ski-field, 2013

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.

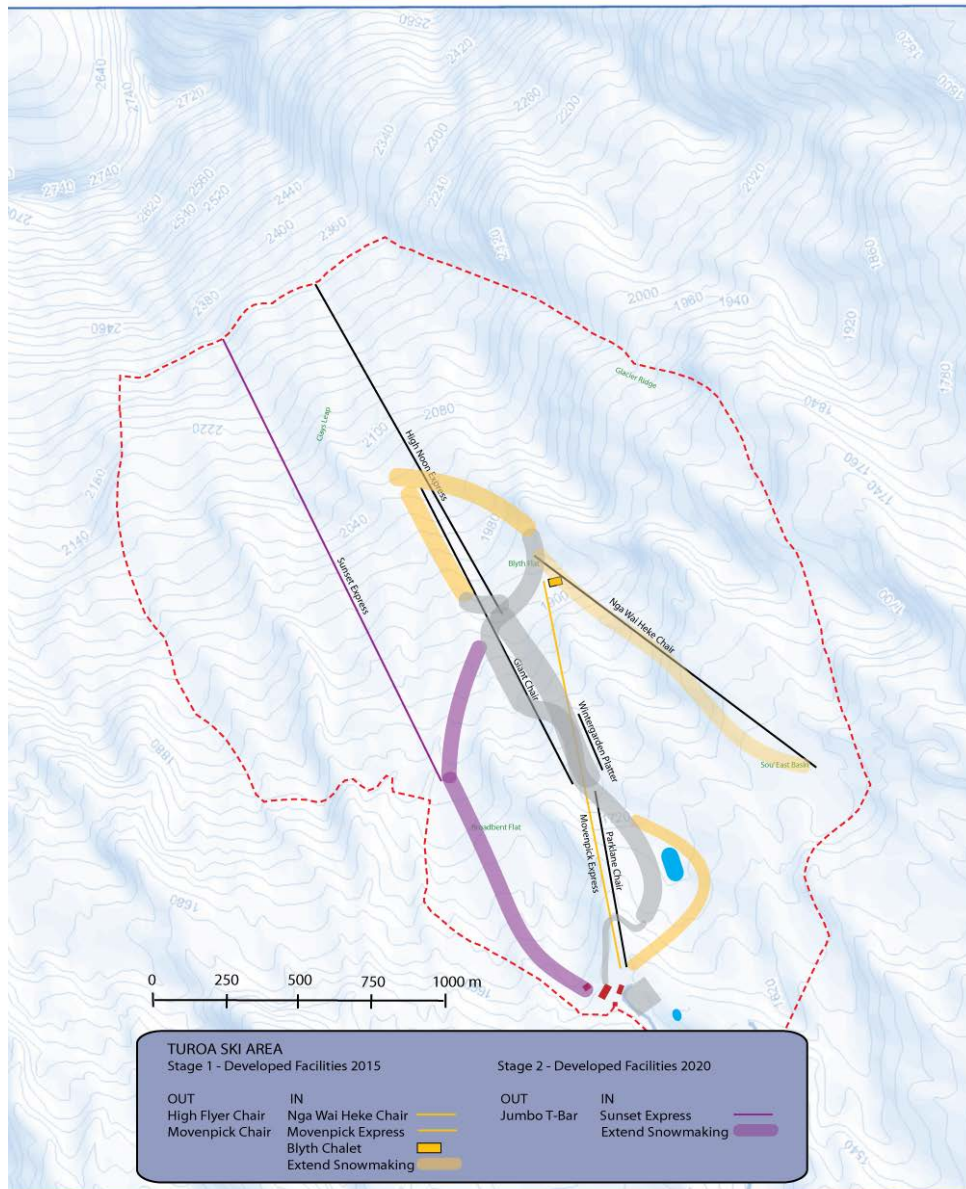
Rob J Pryor  
Registered NZILA Landscape Architect  
**LA4 LANDSCAPE ARCHITECTS**  
March 2014

## Appendix 1: Turoa Ski Area: Existing and Proposed Developments<sup>2</sup>



<sup>2</sup> Turoa Indicative Development Plan 2011

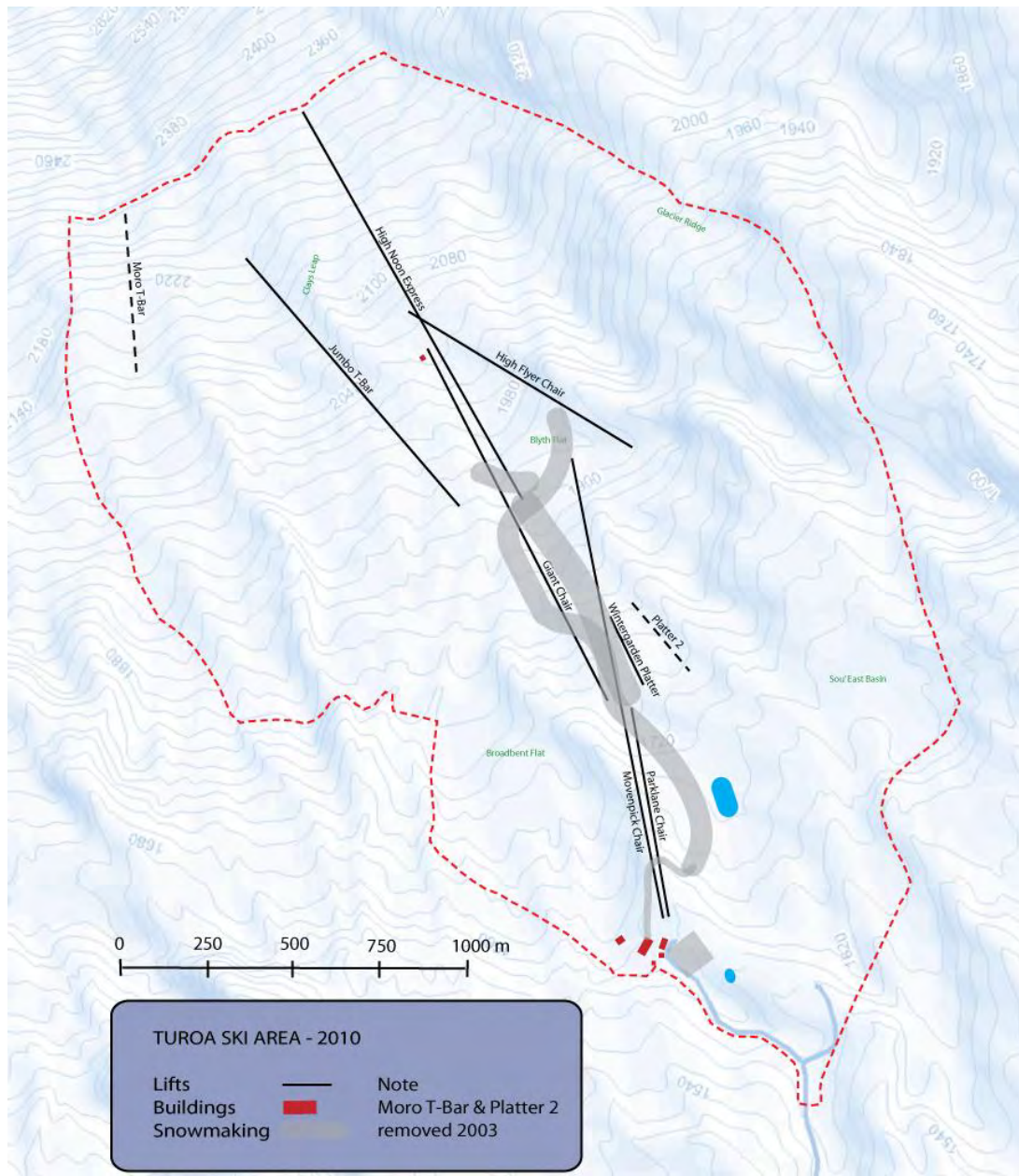
## Appendix 2: Turoa Ski Area: Existing and Proposed Developments<sup>3</sup>



<sup>3</sup> Turoa Indicative Development Plan 2011



### Appendix 3: Turoa Ski Area: 2010<sup>4</sup>



<sup>4</sup> Turoa Indicative Development Plan 2011

# Appendix 4: Turoa Ski Area: Trail Map



## **Appendix 4**

Ecological Assessment –  
Nicholas Singers, Dec 2013



# Ecological Assessment of the Turoa Ski Area

---

Prepared for:  
Ruapehu Alpine Lifts Ltd

---

Compiled by Nicholas Singers  
Ecological Solutions Ltd.

---

NSES Ltd report number : 22b  
2014/15

**DISCLAIMER**

This report has been prepared by Nicholas Singers Ecological Solutions Ltd (NSES Ltd.) exclusively for and under contract to Ruapehu Alpine Lifts. Unless otherwise agreed in writing by NSES Ltd., NSES Ltd. accepts no responsibility for any use of, or reliance on any contents of this report by any person other than Ruapehu Alpine Lifts and shall not be liable to any person other than the Ruapehu Alpine Lifts, on any ground, for any loss, damage or expense arising from such use or reliance.

## Contents

1. Introduction .....	4
2. Turoa Ski Area and the Indicative Development Plan 2011 .....	4
3. Tongariro National Park Management Plan .....	4
4. Background ecological information .....	5
5. The environment and ecological character of the Turoa Ski Area .....	5
6. Ecology of the Turoa Ski Area .....	7
6.1 Vegetation composition .....	7
6.2 Species and ecosystems of significance .....	8
6.3 General ecological condition .....	9
7. Assessment of past effects on indigenous biological diversity.....	10
7.1 General Construction .....	10
7.2 Snow making.....	11
7.3 Petrochemicals.....	11
8. Potential effects of proposed developments .....	12
9. Recommendations .....	13
9.1 Petrochemical storage .....	13
9.2 Snow making.....	14
9.2 Vegetation monitoring and restoration .....	14
10. Conclusions .....	15
11. References .....	15
Appendix 1: Plant species recorded at Turoa Ski Area .....	17

## **1. Introduction**

The Turoa Ski Area is approximately 496 hectares in size (DOC 2006) and is situated on the south western side of Mt. Ruapehu, within Tongariro National Park. In 2000 the ski area licence was purchased by Ruapehu Alpine Lifts Ltd (here-after referred to as RAL) after Turoa Ski Resort Limited went into receivership. RAL have a licence to operate the Ski Area to 2022. The development plans for the Turoa Ski Area (RAL 2011) propose several multi-million dollar investments upgrading ski-lifts and further developing new snow-making infrastructure. Financial return of these proposed developments however will occur over a decade or more, and for further development to occur, absolute security in the licence to operate must be guaranteed. As the license is due to expire in 2022, RAL have decided to reapply for a licence to operate for another 60 years, before investing in these facility upgrades. This ecological assessment was undertaken to provide support to this licence application. This report describes the ecology of the Turoa Ski Area and assesses the impact of its operation from both past and future management of the Ski Area.

## **2. Turoa Ski Area and the Indicative Development Plan 2011**

Skiing has been occurring at Turoa since the mid-1960's (DOC 2006) with the installation of rope tows, though major development of the Ski Area commenced during the summer of 1977/78 after a 45 year licence was obtained to significantly develop the Ski Area. Since 2000, 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 Turoa's terrain. This has almost eliminated the need for terrain modification.

The Turoa 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 the plan aims to provide for more seating inside and outside facilities, more efficient transportation of skiers, together with enhanced snow making, consolidating and better utilising the core Ski Area area. Some of the developments in this plan, such as the relocation of the High Flier Chair-lift have already been undertaken.

## **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 Area 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 the initial 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 lease holder of Turoa) and the Department of Conservation (as the licensor) transparency of approach with managing the Ski Area. From an ecological and environmental perspective the management plan provides a tight set of policies which attempts to avoid or limit environmental impacts with operating the Turoa Ski Area.

Within the Turoa amenities area there are two areas which were specifically excluded; the upper Mangawhero Stream below Clary's track and the Turoa alpine flush (DOC 2006), to preserve the ecological values of these areas (Cawthron Technical Group 1978 & Rogers 1983). These two areas occur next to the very high use parts of the Ski Area and significantly constrain development within this area.

#### **4. Background ecological information**

The most comprehensive ecological studies undertaken within Tongariro National Park, which include the Turoa Ski Area, were undertaken as part of the Environmental Impact Assessment (Cawthron Technical Group 1978 & Rogers 1983). Atkinson (1981) also broadly sampled and mapped the main vegetation types of Tongariro National Park. Rogers & Kimberley (1990) establishment vegetation monitoring to measure the impact of Ski Area operations both within and outside of the amenity area including within the Turoa alpine flush. Vegetation monitoring within the Turoa alpine flush was measured again by the Department of Conservation (Lawrence 2010).

#### **5. The environment and ecological character of the Turoa Ski Area**

The Turoa Ski Area is located on the south-western side of Mt. Ruapehu, an active andesitic volcano of at least 200,000 years age (Molloy & Smith 2002). The Ski Area area is situated between approximately 1580m and 2320m 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. Compared to northerly aspects at equivalent altitudes, Turoa being south-west facing has a cooler climate, which results in lower altitudinal limits of plants. Rainfall is frequent and comparatively high being exposed to the prevailing westerly flows — estimated at over 4000mm (Michaelis 1983), though is only 2654mm average/annum at 1550m at Turoa (Perry & Robertson 2012). 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 has a varied terrain with the majority of the area being an andesitic boulder-field and scoria gravelfield of an unconsolidated raw state, with minimal top soil. Interspersed this are areas of solid andesitic rock, including old lava flows and cliffs some of which have been glaciated and smoothed. The area is naturally dynamic and is frequently, wholly or partially disturbed by volcanic activity such as being covered in volcanic ash during eruptions.

Bare rocks and scoria are dominant features at Turoa and low gradient areas such as Broadbent flat have large areas of unconsolidated scoria which is maintained in this state by regular frost heave. 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 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 Turoa base is at approximately 1620m a.s.l., which approximately 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 and small shrubs 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 and tend to be situated in seepage areas. In this zone vegetation communities are dominated by plants more commonly associated with the high alpine environment, at approximately 200–300m 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 vegetation is sparse, except for wetland areas and has been mapped as *Dracophyllum recurvum* gravel/stone field (Atkinson 1981). The vegetation of the Ski Area is dominated by five main species; woolly moss (*Rhacomitrium lanugosum*), bristle tussock (*Rytidosperma setifolium*), curved leaved neinei (*Dracophyllum recurvum*), snow berry (*Gaultheria colensoi*) and parahebe (*Parahebe spathulata*), though 84 species were recorded.

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 approximately 2000–2100m a.s.l. only slightly higher than Blyth Flat 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 (Thomas & Broady 1997).

In comparison to other alpine areas in New Zealand, the alpine flora of Tongariro National Park is species poor with no species which 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, and are known to forage at high altitude in late summer near Rangipo Hut. Historically the New Zealand dotterel (*Charadrius obscurus aquilonius*) and mutton birds also occupied and bred the alpine environment and were likely widespread (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 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 known as an alpine flush. 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*). There are at least five examples of this wetland type within the Turoa Ski Area. It is most abundant north-west of the Ski Area boundary especially in the headwaters of the Mangaturuturu and Makatote catchments (Singers et al. 2012).

## 6. Ecology of the Turoa Ski Area

### 6.1 Vegetation composition

Vegetation of the Turoa Ski Area is strongly influenced by altitude, landform and soil cover. Further where water is abundant small alpine wetland communities occur. Several vegetation communities were identified.

1. Between 1600m and 1800m, amongst andesitic lava boulder-field and interspersed with patches of scoria gravelfield, curved-leaved neinei (*Dracophyllum recurvum*), bristle tussock with patches of woolly mossfield dominate (Fig’s 1 & 2). Vegetation cover is greatest in sheltered sites especially within gullies. Vegetation is generally less than 30cm high and is composed of islands of vegetation between a protruding boulder-field. Vegetation composition was qualitatively sampled within the Mangawhero Stream gully below the Giant Chair and on the boulder-field above Clary’s track. Here vegetation is dominated by bristle tussock = 15–40% cover; curve leaved neinei = 20–25%; snow berry = 5–20%; Hell’s bells (*Anaphalioides bellidioides*) = <5%, *Brachyglottis bidwillii* = 5% (generally restricted to more intact locations) and bare rock and soil = 40–50%. Occasional patches of woolly moss occur to approximately 1740m a.s.l. though more abundant on low gradient slopes and at lower altitude, especially at and below the lower Ski Area boundary. A feature of the upper Mangawhero Stream gully is the abundance of the white mountain daisy (*Celmisia incana*). Several other species were recorded in this community at low abundance (see Appendix 1 for a full plant species list).



Figure 1: Andesitic lava boulder-field with curve leaved neinei and bristle tussock (brown) and patches of woolly mossfield (white patches)



Figure 2: Upper Broadbent flat. Curve leaved neinei (red) with woolly moss (white) and bristle tussock (brown) amongst andesitic lava boulder-field

seepages while outside of the amenity area, snow tussock occurs in the Turoa alpine flush (see Appendix 1 for a full plant species list).



Figure 3: Cushion-field seepage wetland of *Carpha alpina* and comb sedge (light green area) right of the Mangawhero Stream



Figure 2: Two discrete alpine flush herb-fields fed by spring water, east of the Movenpick Quad chair. Alpine buttercup (*Rununculus insignis*) in full flower.

- Scoria gravelfield occurs on low gradient slopes such as Broadbent flat. Vegetation cover is greater at lower altitude with 30% at 1740m a.s.l. and declines to 10–20% at 1820m. At the lower Broadbent flat area vegetation was qualitatively sampled and is dominated by bristle tussock = 30–40% cover; curve leaved neinei = 20%; snow berry = 20%; Hell's bells (*Anaphalioides bellidioides*) = <5% and bare rock and soil = 40–50%. *Parahebe spathulata* is common on this landform and soil type, though never significant in respect of cover.



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

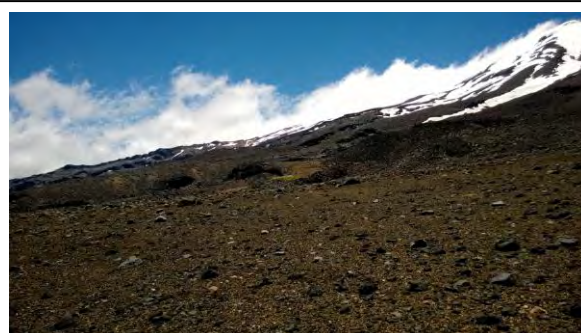


Figure 4: Upper Broadbent flat at approximately 1820m a.s.l. Green patch (centre) is the upper southern Mangaturuturu alpine flush

Above 1840 m a.s.l. vegetation is extremely sparse of <10% cover and only bristle tussock, blue tussock (*Poa colensoi*), Hell's bells (*Anaphalioides bellidioides*), *Parahebe spathulata* and occasional mountain carrot are common. (see appendix 1 for a full plant species list).

## 6.2 Species and ecosystems 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 Turoa Ski Area provides habitat for two species of significance including the New Zealand pipit (Fig.6) and the speckled skink, both at risk species (de Lange et al. 2013; Robertson et al. 2013).

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

- 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 Turoa Ski Area area and likely use the area for feeding and potentially breeding over summer.
- 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. at the head waters of the Mangaturuturu Stream. It is highly likely that this species will be present on the lower slopes at Turoa. The speckled skink is an at risk species (Hitchmough et al. 2013).



Figure 5: Speckled skink observed in the upper Mangaturuturu Valley just below the ski area boundary (Photo: Jeremy Rolfe; February 2012)



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

Though comparatively small the alpine wetland areas, especially the flushes and seepages are the most significant habitat types found within the Turoa Ski Area, primarily because they are disproportionately species diverse for their size. Further they are now regarded as being naturally uncommon ecosystems (Williams et al. 2007) and endangered (Holdaway et al. 2012).

Within the broad “common” ecosystem type described by Atkinson (1981) as mapped as *Dracophyllum recurvum* gravel field/stone field (Atkinson 1981) the areas of highest ecological value occur primarily outside of the amenities area, where limited or no Ski Area facility development or terrain modification has occurred. Particularly intact areas occur east of the western tributary of the Mangaehuehu Stream, Broadbent flat, the lower Ski Area area including the South East basin westward to the car parks and within the amenities area the upper Mangawhero gully.

### 6.3 General ecological condition

Outside of the construction “foot print” the vegetation of the Turoa Ski Area is highly natural and intact with very few invasive species present. The alpine vegetation here 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 as snow Ecological Assessment of the Turoa Ski Area. Prepared for Ruapehu Alpine Lifts. © Nicholas Singers Ecological Solutions January 2013, Contract report number 22b/2013-2014.

tussock (*Chionochloa pallens*), and invasion of environmental weeds. Unlike northern and western parts of Tongariro National Park, the alpine area of southern Tongariro National Park is largely heather free. This high condition has made this part of the park a greater focus for conservation management including controlling the spread of heather and other weeds. In comparison to other Central North Island sites hares are uncommon at Turoa (Perry & Robertson 2012), though do preferentially browse alpine flush areas intensely, cropping some species to a low turf.

## 7. Assessment of past effects on indigenous biological diversity

### 7.1 General Construction

The past environmental impact to the natural values of the Turoa Ski Area has largely occurred where construction and terrain modification has occurred.

Turoa Ski Area has a diverse range of landforms and this has resulted in variable ecological impacts. On steeper boulder-field areas such as the upper Mangawhero gully the terrain provides a high level of natural protection and alpine vegetation is highly natural and intact. Conversely on some lower gradient (and less rocky) slopes within the amenities area, extensive terrain modification has occurred, removing large boulders to create a terrain with few impediments for skiing. This development has been most significant between the Snowflake Café and Blyth Flat area where resulting in a reduction in vegetation cover and probably soil loss. In these areas vegetation cover is now less than 10% while in neighbouring unaffected areas it approaches 30%, and includes a greater proportion of woody shrubs such as curve-leaved neinei. Some recovery of vegetation has occurred, probably in areas where eroded soil accumulated, though largely only of resilient grasses such as bristle tussock (Fig.7). This construction and landscape development has undoubtedly had a considerable impact on vegetation, while where terrain modification has not occurred, vegetation is largely intact and highly natural (Fig.8).

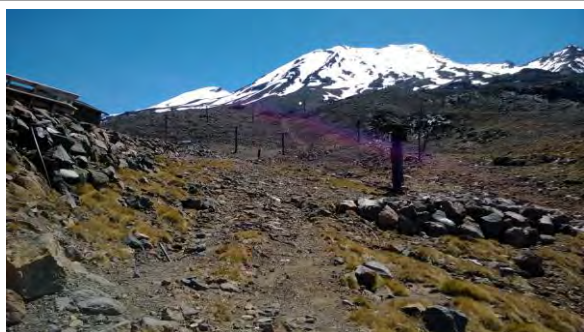


Figure 7: The terrain beneath ski lifts uphill from the Snowflake Café area has been extensively modified (background). Bristle tussock appears to have colonised areas where soil has accumulated (foreground).



Figure 8: Intact landform and vegetation dominated by curve leaved neinei (red), in the gully north east of the Snowflake Café, largely unaffected by Ski Area management.

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 limit environmental impacts of operating a Ski Area on the parks natural resources. Past management of Turoa may have however not strictly applied these policies as they should have been and modification of vegetation cover is likely due to this previous management. For example, prior to RAL's management the use of all-terrain vehicles over the summer months for servicing infrastructure commonly occurred, and this likely resulted in significant impacts to vegetation and soils (Herwi Scheltus, DOC Works manager, pers.com.).

Since RAL taking over the Ski Area licence management practices have improved to ensure Tongariro Park Management Plan policies are adhered to.

## **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 the Mangawhero Stream, and then stored in a reservoir. This has negligible impact on the aquatic ecology of the Mangawhero Stream 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 essentially 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 Turoa 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. Two large spills of petrochemicals have occurred since major development of Turoa started in 1977/1978. The first occurred in December 1979 when 17,000 L of heating oil (a 6:4 mixture of diesel and kerosine) entered the headwaters of the Mangawhero and Makotuku Rivers (Michaelis 1983). More recently in September 2013, 19,000 L of diesel entered the Makotuku River. A number of small spills of petrochemicals have also occurred in the past usually as a result of human error, especially in areas where snow groomers were once serviced (H.Scheltus Department of Conservation works officer, pers.com.). Some of these smaller spills have been decontaminated by removing any contaminated snow and 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 and the environmental conditions at that time. Diesel poses the greatest risk of pollution because large amounts are stored on the Ski Area. 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 highly sensitive 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<sup>3</sup>) of water.

Diesel is lighter than water so floats but in turbulent streams such as the Mangawhero and Makotuku Rivers would become thoroughly mixed. Thus death of aquatic life would be expected with a significant diesel spill, at least in the upper sections until sufficiently diluted downstream.

The effect of the 1979 spill 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 were 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 who 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 following, the impacts on stream life could be significantly worse.

## **8. Potential effects of proposed developments**

The Turoa Indicative development plan proposes several facility upgrades, of which some have already occurred.

The most ecologically significant developments proposed include further development of snow making infrastructure and the creation of one or more tracks back to the Turoa base.

Extension of snow making will require additional water which is proposed to be sourced from a spring within the Mangaehuehu Catchment and reticulated to the main reservoir. Any alpine flush wetland associated with this spring would need to be assessed and the Horizons Regional Council would consider this when a consent application is lodged.

Additionally, from the main reservoir new snow making pipe lines will be trenched, some of which will occur beneath existing tracks such as on the lower Broadbent flat, while elsewhere they will occur over highly natural landforms and vegetation. In general these pipelines will traverse through areas of low vegetation cover and minimal impact is expected to occur. Small alpine flush wetlands occur at the top and bottom of the Ngawaiheke Chair Lift and these and potentially other areas of significant vegetation should be avoided during trenching of the snow making pipe-lines. Construction of snow making pipe-lines will also need to be undertaken in such a way to minimising soil erosion, especially where unconsolidated scoria gravel-field soils occur, such as on parts of Broadbent flat.

The Turoa I.D.P proposes to create three additional routes in the lower Ski Area to reduce congestion on Clary's Track. The home run route off Broadbent flat is already a developed track so no further loss of vegetation and natural character would occur. Development of a standard type of track for a second Clary's track would be located in the Mangawhero Gully exclusion area and would result in loss of vegetation and natural character. The most significant ecological values of this area occur within 5 metres either side of the stream. The Mangawhero Gully is a highly natural area

which contains a population of the iconic alpine buttercup (*Ranunculus insignis*) adjoining the stream, which was a primary reason for its exclusion from the amenities area (Cawthron Technical Group 1978). It is also known to have a high diversity of alpine bryophytes (mosses and liverworts), being repeatedly surveyed during Auckland University field trips (J.Braggins pers.com.). However very limited survey effort has occurred in stream sides further afield and as such whether this site is unusual is not known.

New construction technology has been developed which enables small streams to be temporarily covered so snow making can safely occur over it to create a route for skiing (D.Mazey, RAL pers.com). This technology could potentially allow a second Clary's track to be constructed for winter skiing which would be removed once snow had melted. This potentially could allow the development of a second Clary's track which could limit impacts on the natural character and vegetation, if construction avoided the most significant stream margin areas.

The second track is proposed through the sisters, which would require cutting into solid lava bedrock and placement of a culvert and fill over a small section of the Mangawhero Stream, near the lower part of the Mangawhero Gully exclusion area. This would result in loss of vegetation and natural character to a small area of fairly typical vegetation dominated by curve leaved neinei and part of the stream side margin vegetation including a small number of alpine buttercup plants. This proposal has a much higher landscape impact.

If either or both of these routes was undertaken mitigation for the loss of ecological values should occur.

Expansion of snow making at Turoa and adherence to policies specifically designed to avoid impacts to vegetation such as undertaking major construction over snow, should allow recovery of vegetation and natural character.

## 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 larger 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 a discharge from the tank. If equipment failure or human error occurred large quantities of diesel could enter the environment. All current large storage tanks at Turoa are double skinned which provides for the "bunding" requirement. It is understood that RAL have commissioned an independent review of hazardous substance storage and practices for both Ski Areas. Improvements, or alternative systems, that may provide enhanced environmental protection compared to current NZ best practise should arise from this review.



## 9.2 Snow making

Prior to development of new pipe lines for snow making 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. Construction will need to be mindful of minimising soil erosion especially in unconsolidated scoria gravel-field areas which are prone to scouring.

## 9.2 Vegetation monitoring and restoration

Vegetation monitoring was established at Turoa in 1990 and should be periodically repeated (every 10 years) to measure changes. Natural recovery of vegetation in areas impacted by terrain modification will occur though will likely take many decades or longer. Additional monitoring of these highly impacted areas should also be undertaken.

Recovery of vegetation within areas impacted by terrain modification or construction would be desirable and would help to stabilise soil and enhance the area's natural character. Enhancing natural vegetation recovery would be preferable as different species of plants will grow where each is suitable, creating a more natural character. In these areas soil loss has occurred and vegetation restoration would likely be enhanced with the addition of a suitable soil. In some areas vegetation recovery could be promoted through the addition of a suitable soil, such as a local weed free volcanic sub-soil (B horizon) (Fig.9).

As the natural character is of the 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 areas such around the snow making reservoir which is still raw with no vegetation cover and following the trenching of snow making pipe lines. Any restoration technique used should be monitored to determine its success.

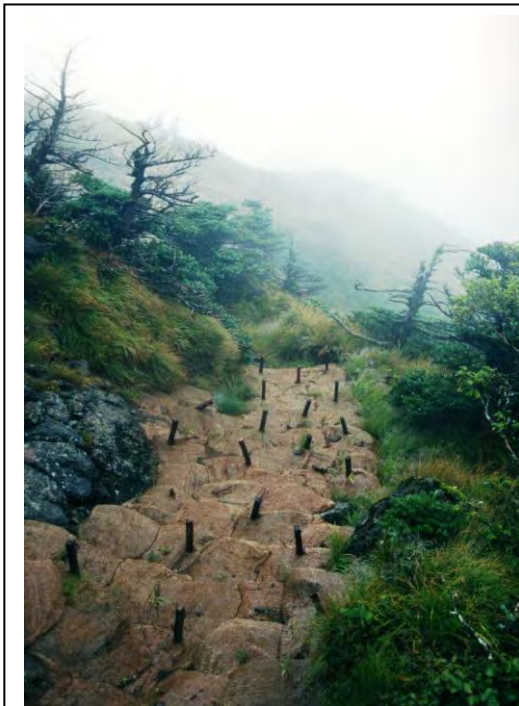


Figure 9: Restoration of an eroded area on Mt. Jeju, Korea using a sterilised local sub-soil placed within biodegradable bags. These bags encouraged natural vegetation colonisation and degraded over time. The eventual result was areas that were fully restored and highly natural

## 10. Conclusions

The vegetation and natural character of the Turoa Ski Area is highly natural outside of the development foot print. Past management practices have caused significant impact to natural values in localised high use areas, especially as a result of terrain modification. Snow making negates the need for this management practice and recovery of vegetation will likely occur if management practices are consistent with policies within the Tongariro National Park Management Plan.

The Turoa IDP proposes to reduce congestion on Clary's track through the creation of alternative routes, some of which would impact on ecological values of the Mangawhero gully exclusion area. If this were to proceed mitigation should occur to off-set the loss of these values.

In general RAL's management of the Turoa 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. 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.

## 11. References

- Atkinson, I.A.E. 1981. Vegetation Map of Tongariro National Park. Botany Division, Department of Scientific and Industrial Research, Wellington New Zealand. P.27
- Cawthron Technical Group (1978). Environmental Impact Assessment: Turoa Skifield. Report commissioned by Alex Harvey Industries, Cawthron Institute, Nelson, New Zealand.
- Cockayne, L. 1908. Report on a botanical survey of the Tongariro National Park. *Department of Lands Report*.
- de Lange, P.J., Rolfe, J.R., Champion, P.D., Courtney, S.P., Heenan, P.B., Barkla, J.W., ... & Hitchmough, R.A. (2013). Conservation status of New Zealand indigenous vascular plants, 2012. *New Zealand threat classification series 3*. Wellington, Department of Conservation.
- Department of Conservation (2006). Tongariro National Park Management Plan: Te Kaupapa Whakahaere mo Te Papa Rēhia o Tongariro 2006-2016. Tongariro / Taupō Conservation Management Planning Series 4. Tongariro / Taupo Conservancy Turangi. P.291.
- Holdaway, R.J., Wiser, S.K. and Williams, P.A. (2012), Status Assessment of New Zealand's Naturally Uncommon Ecosystems. *Conservation Biology*, 26: 619–629.
- Khan, N., Warith, M. A., & Luk, G. (2007). A comparison of acute toxicity of biodiesel, biodiesel blends, and diesel on aquatic organisms. *Journal of the Air & Waste Management Association*, 57(3), 286-296.

- Hitchmough, R.; Anderson, P.; Barr, B.; Monks, J.; Lettink, M.; Reardon, J.; Tocher, M.; Whitaker, T. (2013). Conservation status of New Zealand indigenous reptiles, 2012. *New Zealand threat classification series 2*. Wellington, Department of Conservation.
- Lawrence, A. 2010. Changes in vegetation cover at the Turoa Alpine Fush and Mangawhero Stream Environs, Tongariro National Park. Unpublished internal report for the Tongariro Taupo Conservancy, Department of Conservation, Turangi. Document number: DOCDM: 572482.
- Michaelis, F. B. (1983). Effect of Turoa oil spill on aquatic insects in the Mangawhero river system. *New Zealand Entomologist*, 7(4), 447-455.
- Mark, A.F.; Adams, N.M. (1995). New Zealand alpine plants fully revised. Godwit Publishing Auckland, New Zealand. 269p.
- Mark, A.F.; Dickinson, K.J.M. 1997. New Zealand Alpine Ecosystems, Chapter 14. In: Wielgolaski FE ed. Ecosystems of the world Vol. 3: Polar and alpine tundra. Amsterdam, Elsevier. Pp. 311–345.
- Mariano, A. P., Tomasella, R. C., de Oliveira, L. M., Contiero, J., & de Angelis, D. D. F. (2008). Biodegradability of diesel and biodiesel blends. *African Journal of Biotechnology*, 7(9).
- Perry, M. E., & Robertson, A. W. (2012). Cleared and uncleared pellet plots as indices of brown hare density. *New Zealand Journal of Ecology*, 36(2), 157.
- Robertson H.A.; Dowding, J.E.; Elliott, G.P.; Hitchmough, R.A.; Miskelly, C.M.; O'Donnell, C.F.J.; Powlesland, R.G.; Sagar, P.M.; Scofield, R.P.; Taylor, G.A. (2013). Conservation status of New Zealand indigenous birds, 2012. *New Zealand threat classification series 4*. Wellington, Department of Conservation.
- Rogers, G.M. 1983. Tongariro National Park Turoa Skifield Planning Study: Ecology Study. Department of Lands and Survey, Wellington, New Zealand P.28.
- Rogers G.M & Kimberley M. 1990. Turoa Skifield, Tongariro National Park, Vegetation Monitoring Programme. Forest Research Institute contract report, prepared for Department of Conservation, Tongariro/Taupo Conservancy
- Scott, D. 1977. Plant ecology above timber line on Mt Ruapehu, North Island, New Zealand. I Site factors and plant frequency. *New Zealand Journal of Botany* 15: 255–294.
- Singers, Nicholas; Rolfe, Jerermy; Renner, Matt; de Lange, Peter. 20012. Alpine flush wetlands of southwestern Mt Ruapehu, Tongariro National Park. Unpublished internal Department of Conservation report. Doucment number DOCDM–1016454.
- Thomas, W. H., & Broady, P. A. (1997). Distribution of coloured snow and associated algal genera in New Zealand. *New Zealand Journal of Botany*, 35(1), 113–117.
- Williams, P.A.; Wiser, S.; Clarkson, B.; Stanley, M. (2007). New Zealand's historical rare terrestrial ecosystems set in a physical and physiognomic framework. *New Zealand Journal of Ecology* 31 (2), 119–128.

## Appendix 1: Plant species recorded at Turoa Ski Area

Species name	Common name	Altitude zone		
		Alpine flushes	1600m – 1840m	1840m – 2100m
<i>Agrostis magellanica</i>		✓		
<i>Agrostis muelleriana</i>		✓		
* <i>Agrostis stolonifera</i>	creeping bent			
<i>Anaphalioides alpina</i>		✓		
<i>Anaphalioides bellidioides</i>	ever-lasting daisy	✓		
<i>Anisotome aromatica</i>	mountain carrot	✓		
<i>Brachyglottis bidwillii</i>				
* <i>Cardamine hirsuta</i>	landcress			
<i>Carpha alpina</i>		✓		
<i>Celmisia glandulosa</i> var. <i>glandulosa</i>	mountain daisy	✓		
<i>Celmisia incana</i>	mountain daisy	✓		
<i>Celmisia glandulosa</i> X <i>C.incana</i>	mountain daisy	✓		
<i>Celmisia spectabilis</i>	mountain daisy	✓		
* <i>Cerastium fontanum</i>	Moused-eared chickweed			
<i>Chionochloa pallens</i>	Snow tussock			
<i>Chionochloa rubra</i>	Red tussock			
<i>Colobanthus apetalus</i>		✓		
<i>Coprosma depressa</i>				
<i>Coprosma perpusilla</i>		✓		
<i>Craspedia uniflora</i> agg. CNI		✓		
<i>Craspedia</i> "Taranua"		✓		
<i>Deschampsia chapmanii</i>		✓		
<i>Dracophyllum recurvum</i>	curved leaved neinei	✓		
<i>Epacris alpina</i>				
<i>Epilobium brunnescens</i>		✓		
* <i>Epilobium ciliatum</i>	willow herb			
<i>Epilobium glabellum</i>				
<i>Epilobium macropus</i>		✓		
<i>Epilobium pernitens</i>		✓		
<i>Euchiton laterale</i>		✓		
<i>Euchiton traversii</i>		✓		
<i>Euphrasia cunneata</i>	Eye bright			
<i>Forstera bidwillii</i>				
<i>Gaultheria colensoi</i>	snow berry	✓		
<i>Gentianella bellidifolia</i>	gentian	✓		
<i>Gentianella montana</i> subsp. <i>ionostigma</i>		✓		
<i>Hebe tetragonia</i>	Whipcord hebe	✓		
* <i>Heiracium pilosella</i>	Mouse-eared hawkweed			
<i>Hierochloa recurvata</i>	Mountain holy grass			
* <i>Holcus lanatus</i>	Yorkshire fog			

<i>Isolepis aucklandica</i>		✓		
<i>Isolepis subtilissima</i>		✓		
<i>Juncus novae-zealandiae</i>		✓		
<i>Juncus planifolius</i>		✓		
<i>Kelleria dieffenbachii</i>	native thyme			
<i>Lepidothamnus laxifolius</i>	pygmy pine			
* <i>Linium catharticum</i>	purging flax			
* <i>Lolium perenne</i>	rye grass			
* <i>Lotus pedunculatus</i>	lotus			
<i>Luzula banksiana</i> var. <i>migrata</i>		✓		
<i>Luzula colensoi</i>		✓		
<i>Luzula</i> sp.		✓		
<i>Lycopodium fastigiatum</i>		✓		
<i>Montia calycina</i>		✓		
<i>Montia fontana</i>		✓		
<i>Myrsine nummularia</i>				
<i>Neopaxia calycina</i>				
<i>Oreobolus pectinatus</i>	comb sedge	✓		
<i>Ourisia vulcanica</i>		✓		
<i>Prasophyllum colensoi</i>	Leek orchid			
<i>Parahebe hookeriana</i>		✓		
<i>Parahebe spathulata</i>				
<i>Pentacondra pumila</i>				
<i>Pimelea microphylla</i>				
* <i>Plantago lanceolata</i>	narrow leafed plantain			
* <i>Plantago major</i>	large-leafed plantain			
<i>Plantago uniflora</i>		✓		
<i>Podocarpus nivalis</i>	Snow totara			
<i>Poa colensoi</i>	blue tussock	✓		
<i>Poa lindsayi</i>		✓		
<i>Prasophyllum colensoi</i>	leek orchid			
<i>Ranunculus carsei</i>		✓		
<i>Ranunculus insignis</i>		✓		
<i>Raoulia albosericca</i>	silver raoulia			
<i>Raoulia grandiflora</i>				
<i>Rhacomitrium lanugosum</i>	woolly moss			
* <i>Rumex acetosella</i>	sheep sorrel			
<i>Rytidosperma nudum</i>		✓		
<i>Rytidosperma setifolium</i>	bristle tussock			
* <i>Sagina procumbens</i>				
<i>Schoenus pauciflorus</i>		✓		
<i>Taraxacum magellanicum</i>		✓		
<i>Thelymitra</i> sp.				
<i>Ucinia viridis</i>		✓		
<i>Wahlenbergia</i>	harebell			

<i>pygmaea</i>				
----------------	--	--	--	--

## **Appendix 5**

Economic Reports

# *Lifting the Region*

## The economic benefits of the Ruapehu ski-fields

Ruapehu Alpine Lifts Ltd

*Highlighting the regional  
economic benefits of  
Ruapehu ski-fields*

*January 2014*





**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



Hamiora Bowkett  
Engagement Partner  
[hamiora.bowkett@nz.pwc.com](mailto:hamiora.bowkett@nz.pwc.com)  
(04) 462 7134



Aaron van der Heyden  
Associate  
[aaron.j.vanderheyden@nz.pwc.com](mailto:aaron.j.vanderheyden@nz.pwc.com)  
(04) 462 7516

---

## Table of contents

Executive summary .....	1
Introduction .....	4
<i>Ruapehu Alpine Lifts Limited</i> .....	4
<i>Tongariro National Park</i> .....	4
<i>The Whakapapa and Turoa ski-fields</i> .....	5
Ruapehu ski-field combined impacts .....	9
<i>Ongoing annual impacts of operations</i> .....	9
<i>One-off impacts of proposed ski-field developments</i> .....	13
Whakapapa ski-field .....	17
<i>Ongoing annual impacts of Whakapapa operations</i> .....	17
<i>One-off impacts of proposed Whakapapa capital developments</i> .....	18
Turoa ski-field .....	20
<i>Ongoing annual impacts of Turoa operations</i> .....	20
<i>One-off impacts of proposed Turoa capital developments</i> .....	21
Wider benefits across New Zealand .....	23
<i>Commitment to providing local employment opportunities</i> .....	23
<i>Ruapehu Cadetship Programme: Developing work skills</i> .....	23
<i>Providing affordable experiences for schools</i> .....	25
Appendix A: Methodology .....	26
Appendix B: Disclaimer .....	30

## 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.

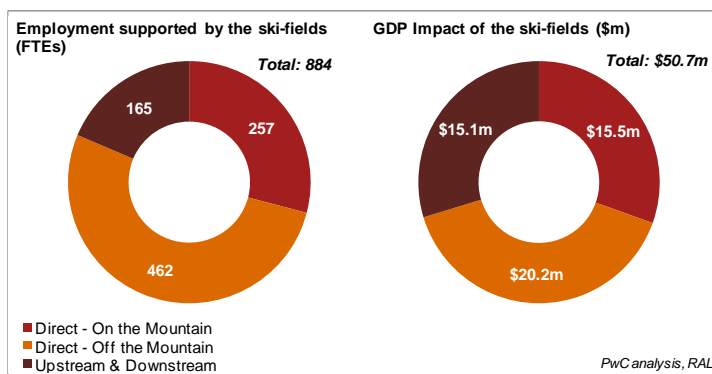
RAL is a public benefit entity and is licensed by the Department of Conservation (DoC) to operate the Whakapapa and Turoa ski-fields. RAL does not pay out dividends to any of its 4,000 shareholders, but instead **re-invests all profits into the mountain**. Operating the ski-fields has two major impacts:

- **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.<sup>1</sup> 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.<sup>2</sup> 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.<sup>3</sup>

<sup>1</sup> All dollar values in this report are presented in 2013 dollars.

<sup>2</sup> Statistics New Zealand. (2013). *Census*. NB: this does not include youth unemployment.

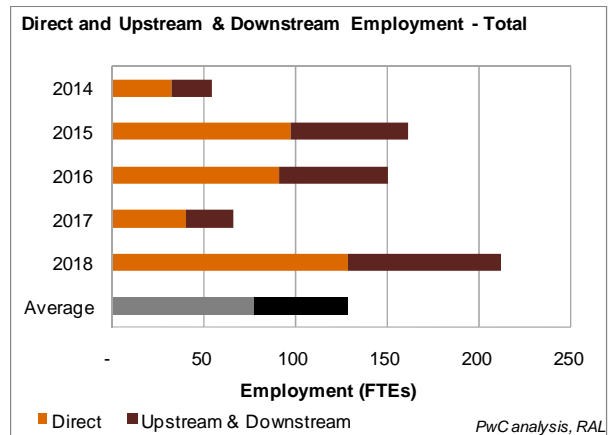
<sup>3</sup> PricewaterhouseCoopers. (2013). *Regional Industry Database*.



**Major ski-field capital projects will support 640 one-year FTEs over five years<sup>4</sup>**

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**.



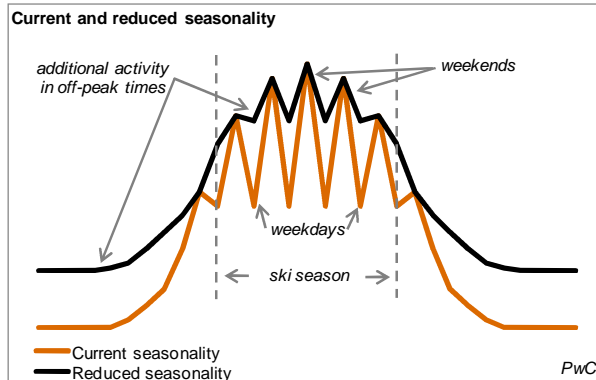
**RAL supports the local economy through a number of other initiatives**

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.

<sup>4</sup> 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.<sup>5</sup> 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*

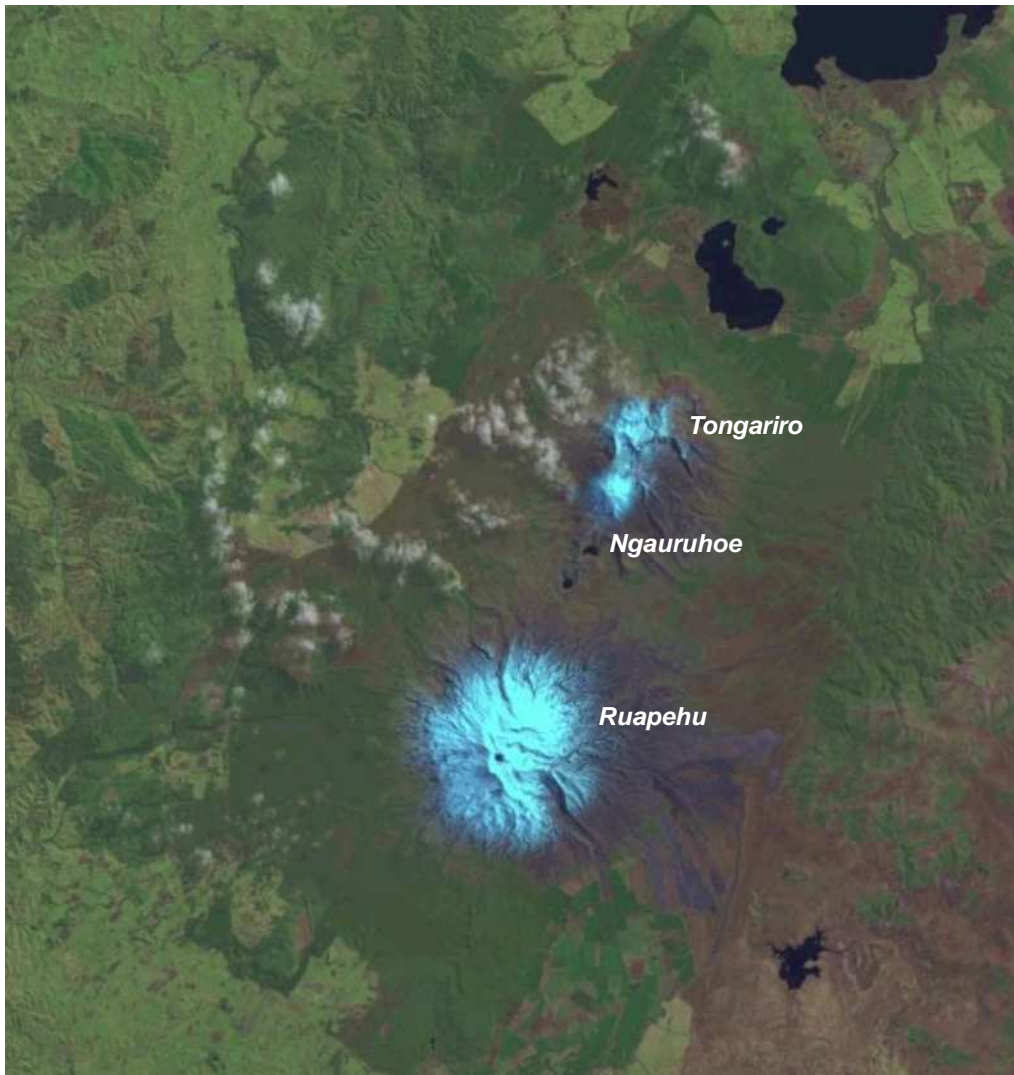
The three mountain peaks of Ruapehu, Ngauruhoe and Tongariro were gifted to the people of New Zealand in 1887 by Ngāti Tūwharetoa. The gifted land was gazetted as a National Park, for the use of all people, and has since been used by many people for recreational purposes. Tongariro was the first national 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.

---

<sup>5</sup> 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**

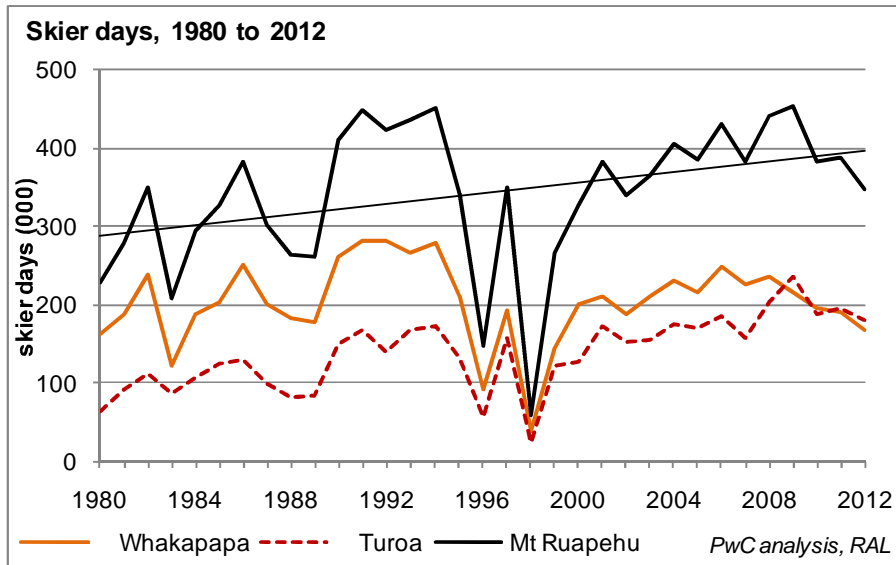


### *The Whakapapa and Turoa ski-fields*

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.

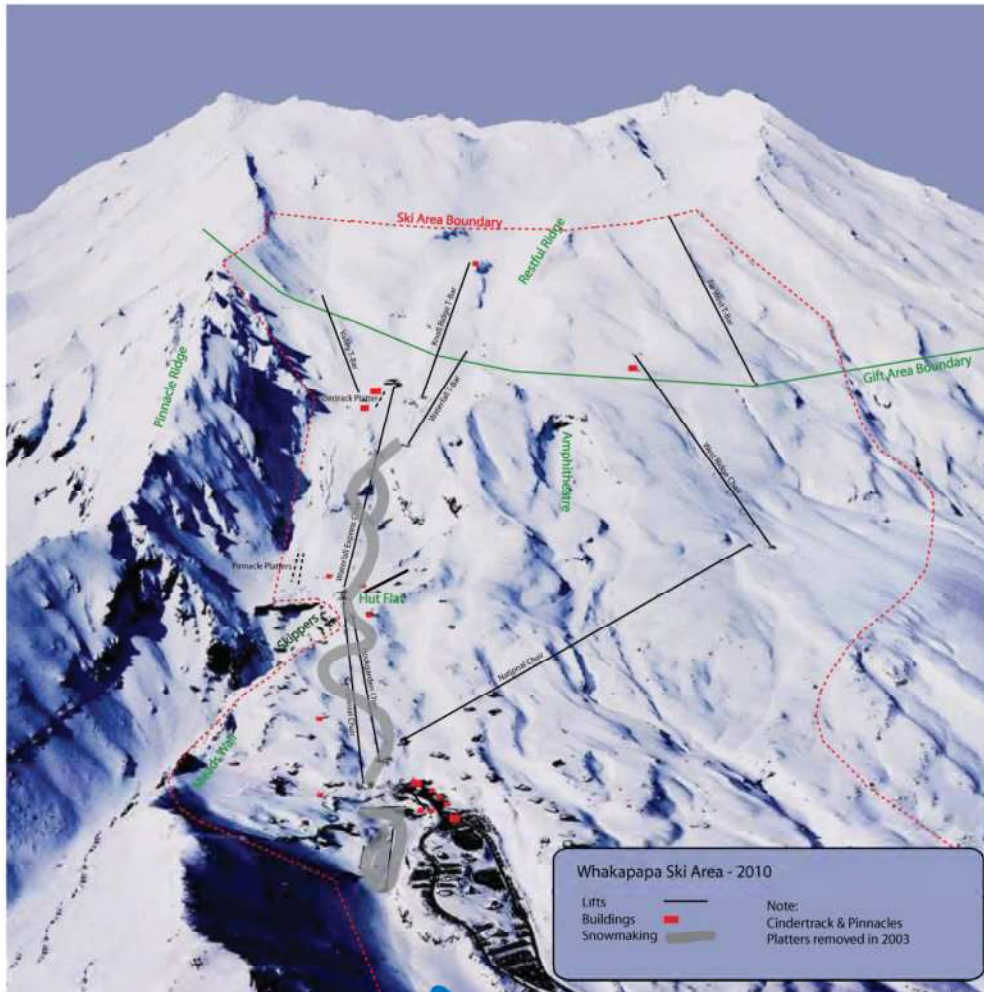
### Whakapapa

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

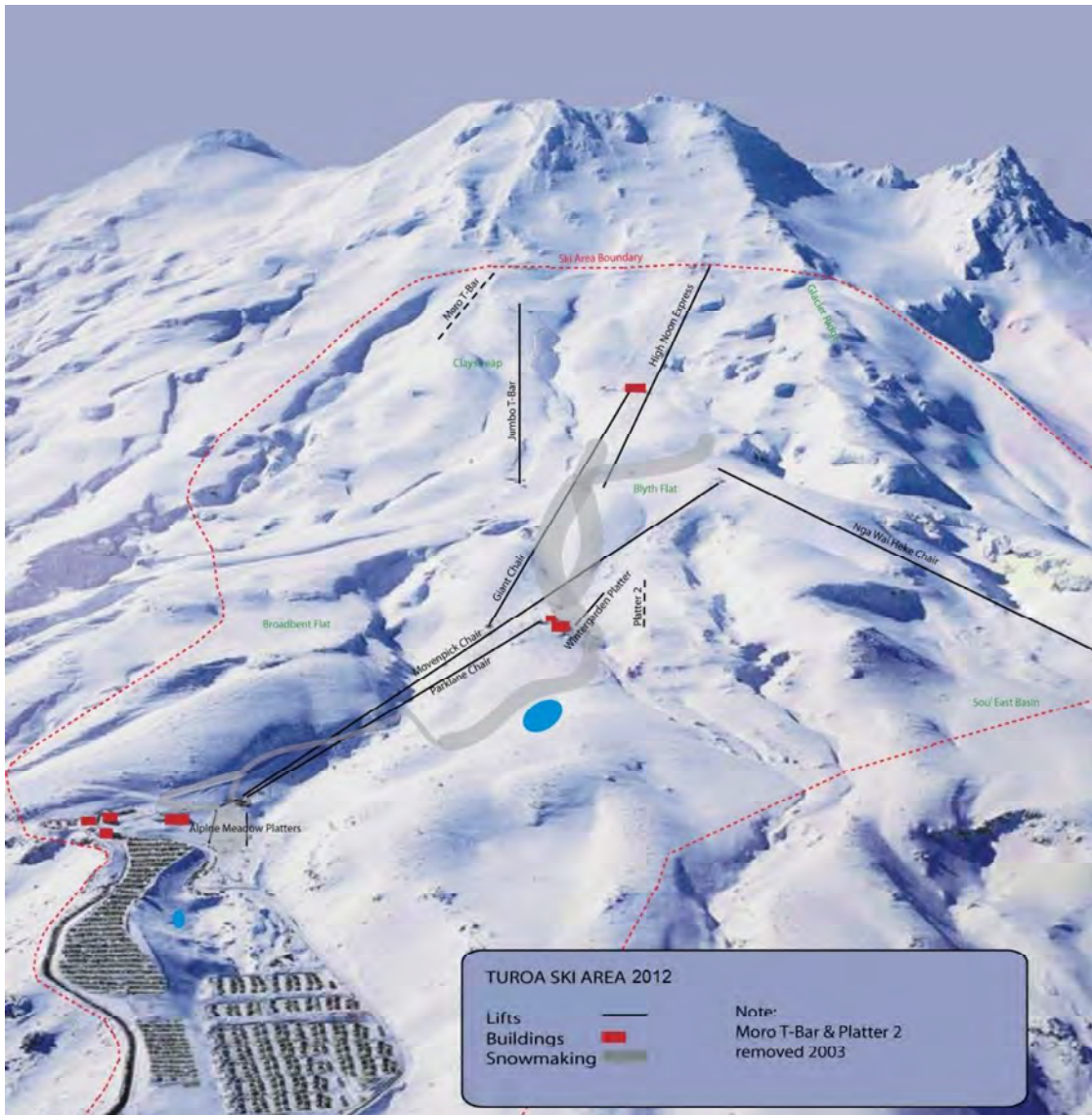
Turoa ski-field was commercially developed in 1978. Its location on the south western slopes of Mt Ruapehu means that it is more affected by typical New Zealand weather conditions than Whakapapa but is less affected by sunlight. The terrain and wider area available at the Turoa ski-field makes it particularly 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.<sup>6</sup>

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.

<sup>6</sup> Commerce Commission. (2000). *Media release: Commission authorises RAL to acquire Turoa*. 5 November 2000.

Figure 4 Turoa ski-field area



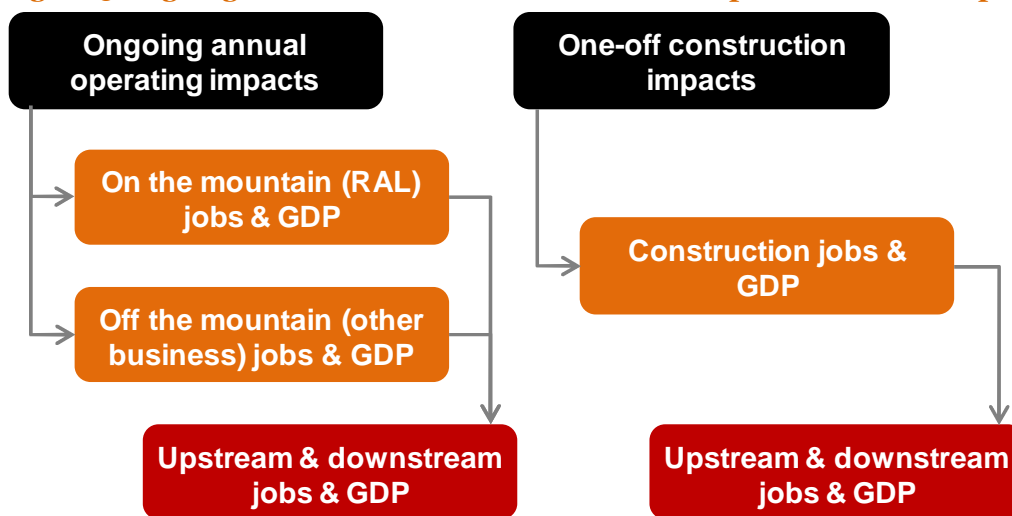
## Ruapehu ski-field combined impacts

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.

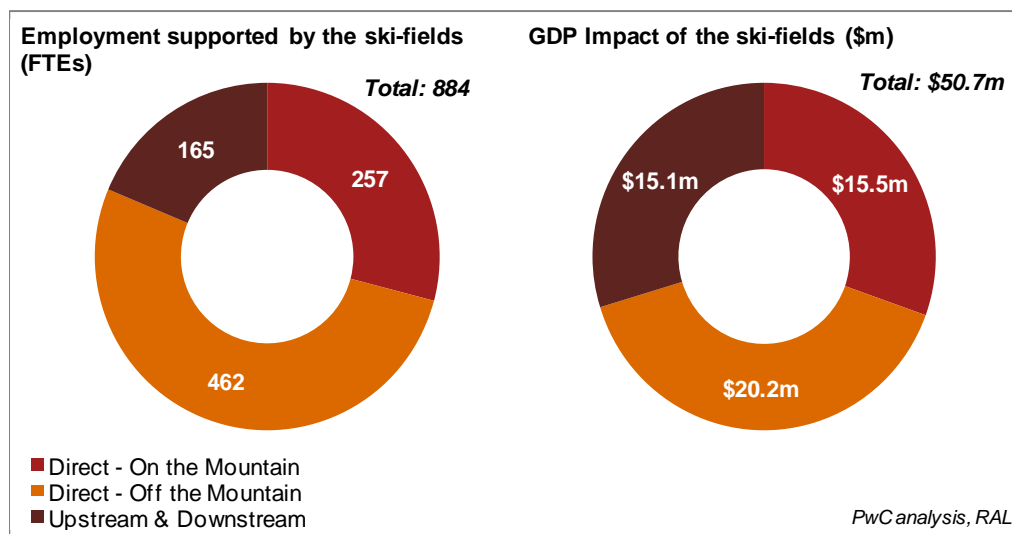
The ongoing operations of the ski-field create jobs and GDP in three ways:

- 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.

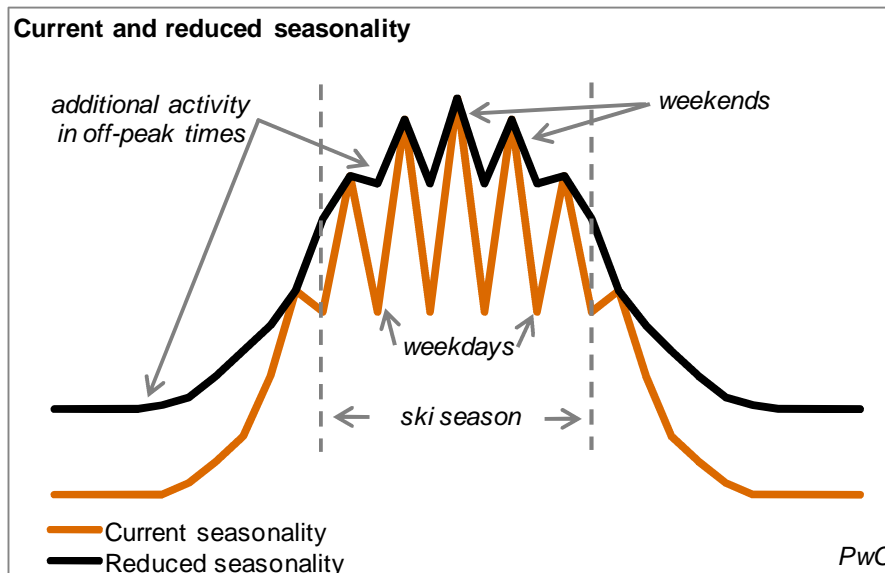
A key benefit to the local community of this strategy is that it will help make better use of existing accommodation and other tourism infrastructure. At present, tourism businesses have to put in place infrastructure to meet with the demands of peak-season weekends, while for most of the rest of the year, usage (and therefore return on investment) is low.

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.

**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.**

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.

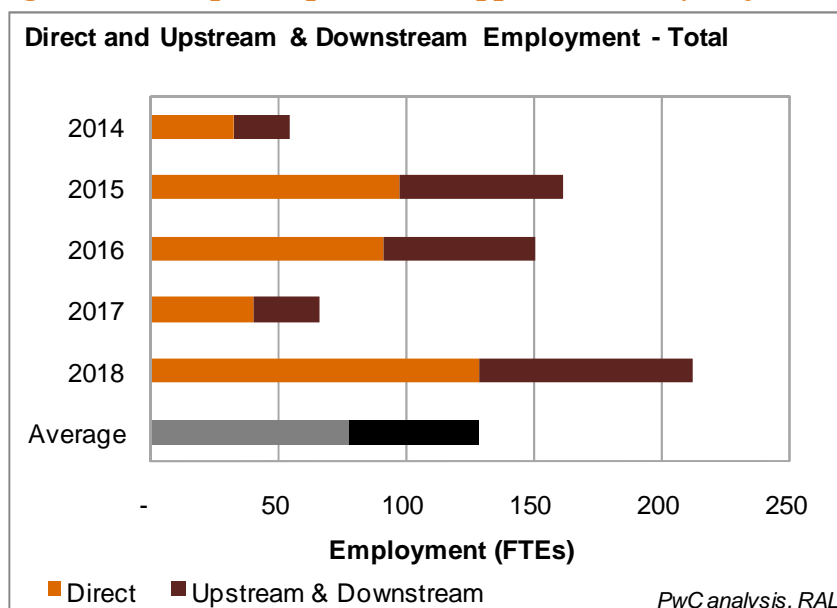
**Figure 8 Knoll Ridge cafe**



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**



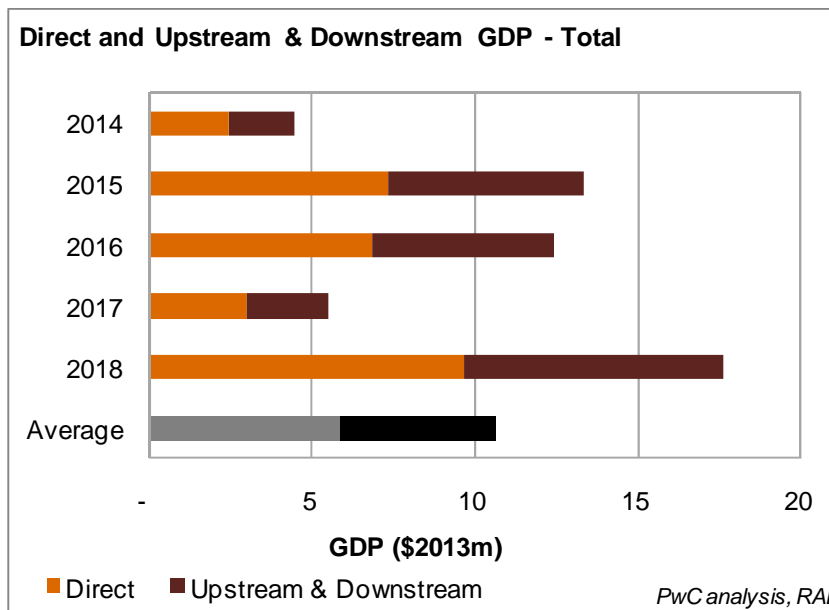




The proposed new developments are expected to lead to the equivalent of over **640 one-year FTEs** when both direct and upstream and downstream impacts are considered. This peaks in 2018, where total one-year FTEs rise to 210 as the proposed Western Chondola lift is constructed at Whakapapa and the Sunset 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**



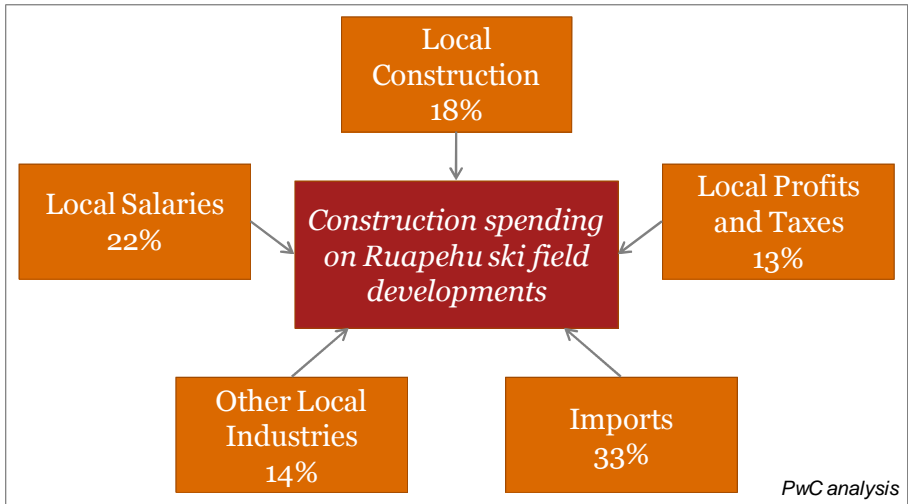
The total impact from the planned developments is **\$53m in GDP over the next five years**, or \$11m per year on average. Figure 10 highlights that as with employment, GDP from capital projects peaks in 2018 with the development of the Western Chondola and Sunset Express.

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

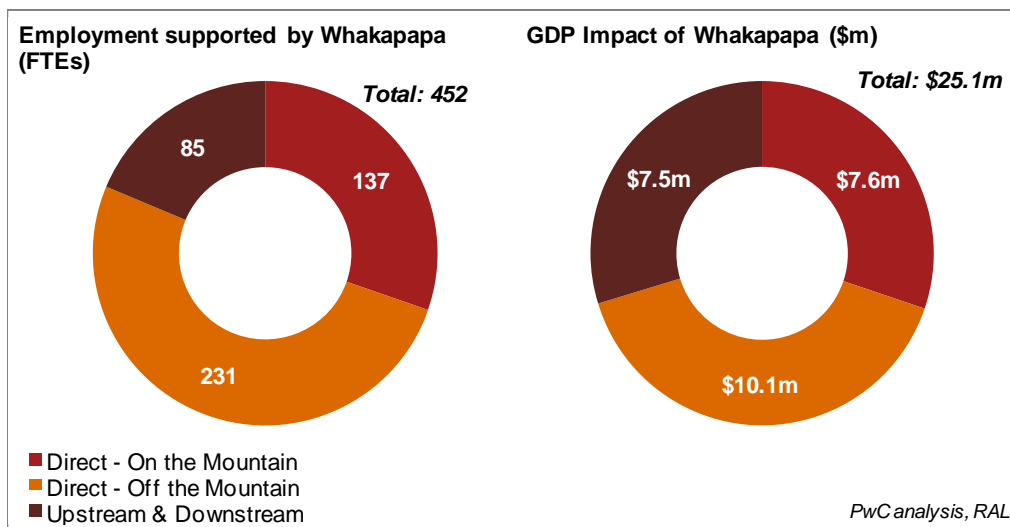
Whakapapa ski-field is located on the northern slopes of Mt Ruapehu and is considered one of the best locations in New Zealand to learn to ski and snowboard. With approximately 185,000 skier days per year, Whakapapa makes up approximately half of RAL's skier days and resultant operations. Since the late 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.

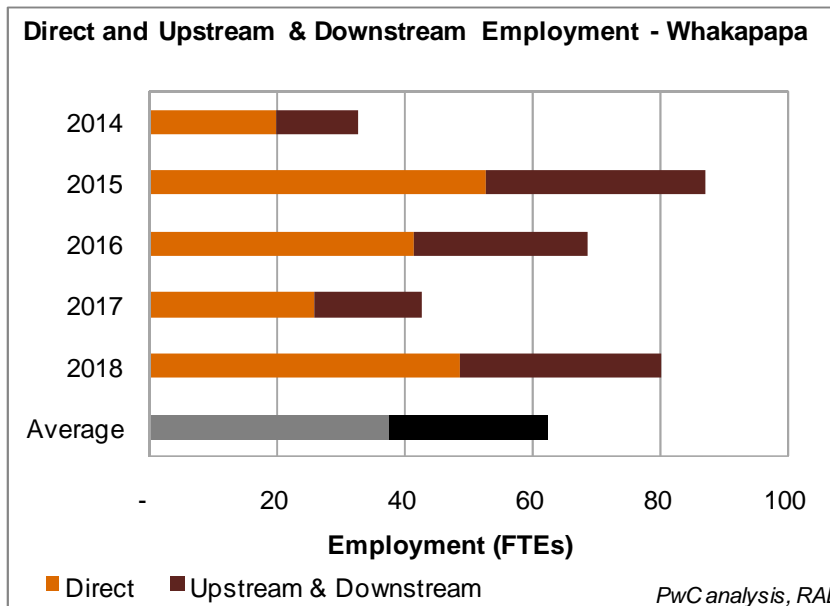
**Total employment generated in the local economy as a result of the Whakapapa ski-field is equivalent to 8.0% of total Ruapehu District employment.**

### 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**

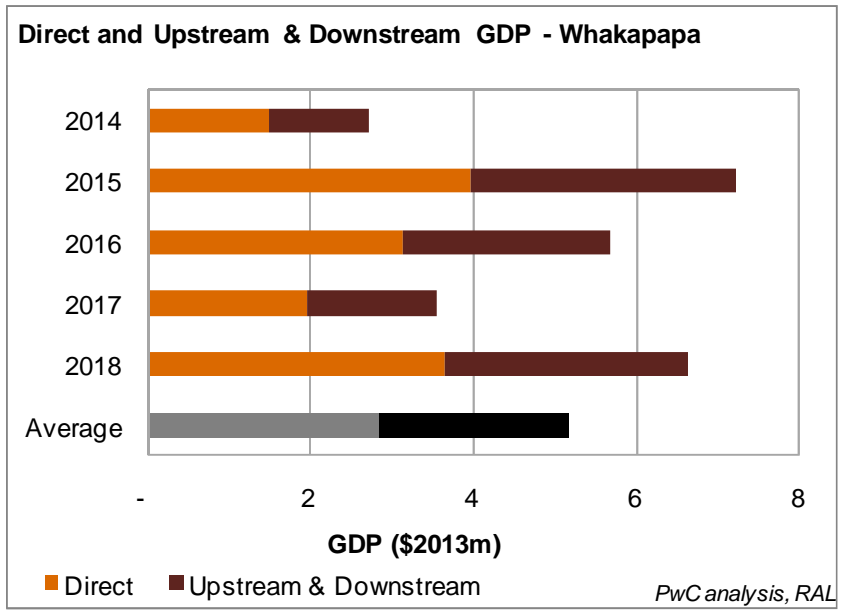


Proposed developments at Whakapapa are expected to lead to the **equivalent of over 310 one-year FTEs** when both direct and upstream and downstream impacts are considered. In line with the construction of the Knoll Ridge Express and Western Chondola, employment peaks at approximately 87 and 80 one-year 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**

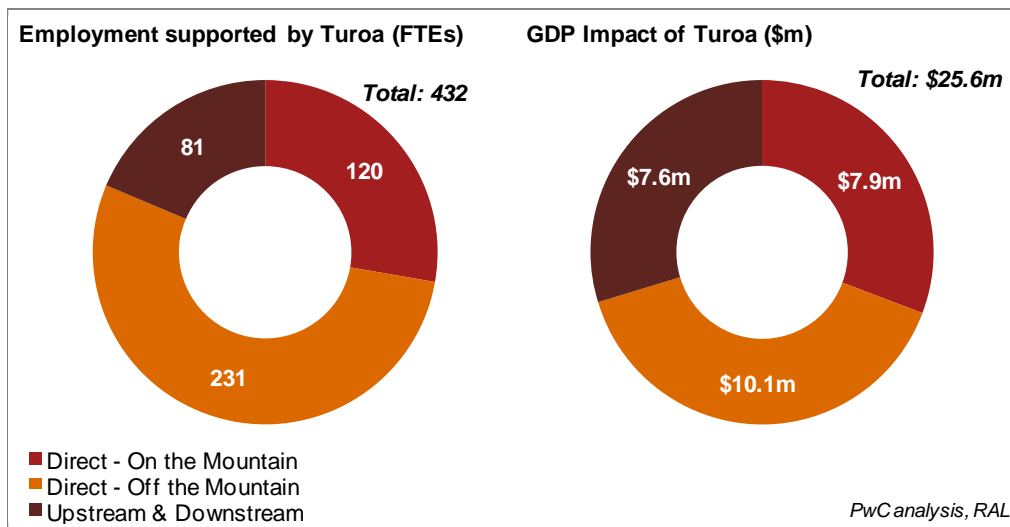


Figure 15 shows that Turoa ski-field employs an average of **120 FTEs throughout the year on the mountain** (with far higher numbers in winter and lower numbers in summer). The majority of visitors to Turoa are from Auckland, Wellington, and areas to the south / south west of the Ruapehu region such 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.**



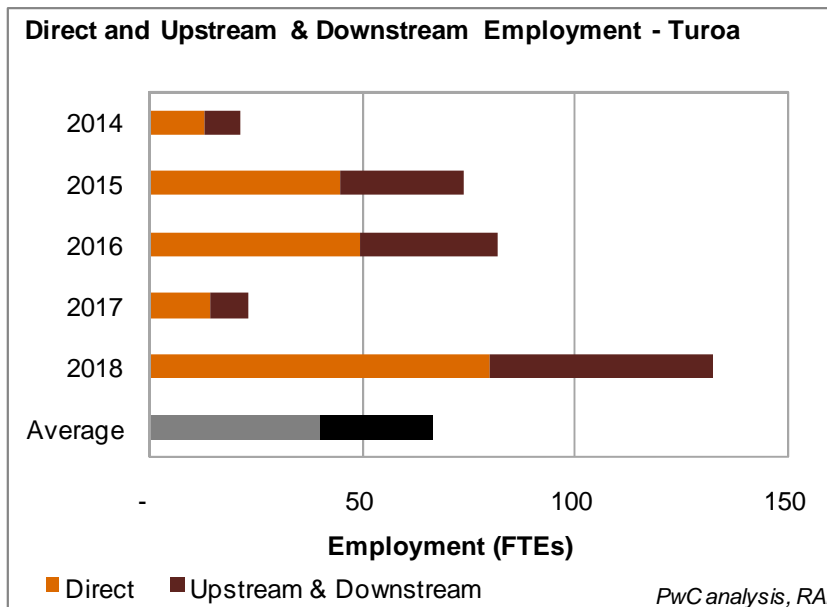
On average over the last three years, the Turoa ski-field has directly contributed approximately **\$7.9 million** per year to regional GDP from on the mountain operations. A further **\$10.1 million of GDP** is generated as a result of direct off the mountain economic activity from visitors to the region. 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**

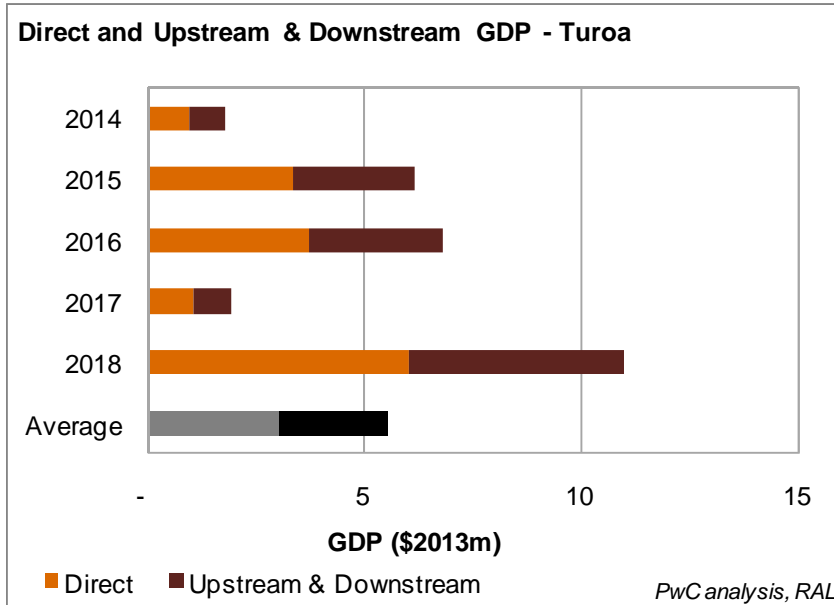


The proposed developments at Turoa are expected to lead to the equivalent of **over 330 one-year FTEs** when both direct and upstream and downstream impacts are considered. In line with the construction of the Sunset Express chairlift and snowmaking reticulation extensions, construction related employment 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 – 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**

<i>Cadetship Year One</i>	<i>Accelerator Programme Year Two</i>	<i>Apprenticeships Year Three</i>
<ul style="list-style-type: none"> <li>• Up to 20 places</li> <li>• March – April (6 weeks) for ready for workplace preparation</li> <li>• May – October (24 weeks) for General Attendant role</li> </ul>	<ul style="list-style-type: none"> <li>• Up to 8 places</li> <li>• June – October (20 weeks)</li> </ul>	<ul style="list-style-type: none"> <li>• Up to 3 active apprenticeships</li> <li>• June – October (20 weeks)</li> </ul>
<i>Level 2 National Certificate in Employment Skills</i>	<i>Level 2 / 3 National Certificate</i>	<i>Level 3 / 4 National Certificate</i>
<p><b>Workplace Preparation</b></p> <ul style="list-style-type: none"> <li>• Introduction to programme</li> <li>• Cultural Significance</li> <li>• Introduction to RAL</li> <li>• Basic numeracy &amp; literacy</li> <li>• Resume building</li> <li>• Interview skills</li> <li>• Basic PC skills</li> <li>• Personal appearance &amp; hygiene</li> </ul> <p><b>General Attendant</b></p> <ul style="list-style-type: none"> <li>• Health &amp; Safety</li> <li>• Employment relationship obligations</li> <li>• Working in a team</li> <li>• Tourism industry of NZ</li> <li>• Customer Service</li> <li>• Communication skills in work environment</li> </ul>	<p><b>Skilled Attendant</b></p> <ul style="list-style-type: none"> <li>• Driver Licensing</li> <li>• Rental Technician</li> <li>• Avalanche Level One</li> <li>• NZSIA Stage One</li> <li>• Hospitality/Tourism</li> <li>• Cook</li> <li>• Trade Assistant</li> <li>• Senior Attendant / Entry Level Supervisor</li> </ul>	<p><b>Apprenticeship / Career</b></p> <ul style="list-style-type: none"> <li>• Heavy Equipment</li> <li>• Workshop Technician</li> <li>• Avalanche Level Two</li> <li>• NZSIA Stage Two</li> <li>• Hospitality/Tourism</li> <li>• Chef</li> <li>• Trade Apprenticeships</li> <li>• Front line Supervisor</li> </ul>

### *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).<sup>7</sup>
- 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).<sup>8</sup>
- 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

---

<sup>7</sup> MBIE. (2012). *Regional Tourism summary: Lake Taupo RTO and Regional Tourism summary: Ruapehu RTO*.

<sup>8</sup> 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.





[www.tri.org.nz](http://www.tri.org.nz)

# **MOUNT RUAPEHU SKI-FIELDS: AN ECONOMIC IMPACT STUDY**

A Study for the Ski Areas Association of New Zealand

March 2002



**Auckland University  
of Technology**

## TABLE OF CONTENTS

	Page
Executive Summary	3
Introduction	5
The Case Study	6
Methodology	7
Mountain Surveys:	
Whakapapa	10
Turoa	17
Accommodation Monitor	24
Expenditure Analysis	26
The Economic Impacts	29
Expenditure Diary	33
Business Survey	39
Respondent's Comments	41
Conclusions	44
Appendix A: Whakapapa Mountain Survey	
Appendix B: Turoa Mountain Survey	
Appendix C: Expenditure Diary	
Appendix D: Accommodation Monitor	
Appendix E: Employee Survey	
Appendix F: Business Survey- Costs Sheet	

## 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 Whakapapa 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 6<sup>th</sup> of August and the 19<sup>th</sup> 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



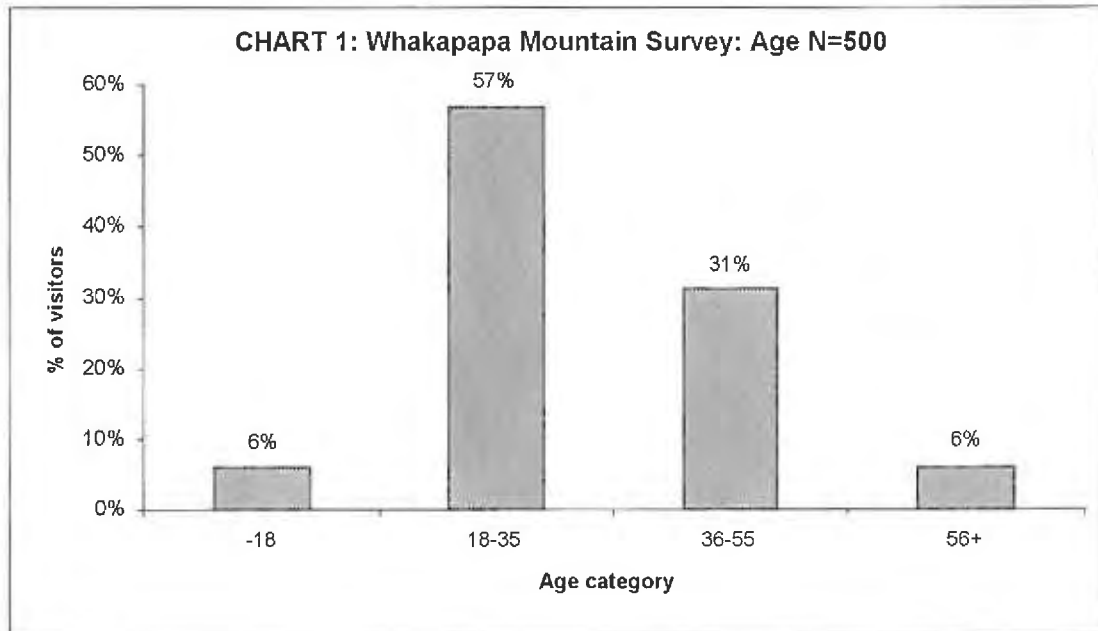
input. As a result, school-groups and teenagers travelling alone or with peers may be under-represented.

- 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.

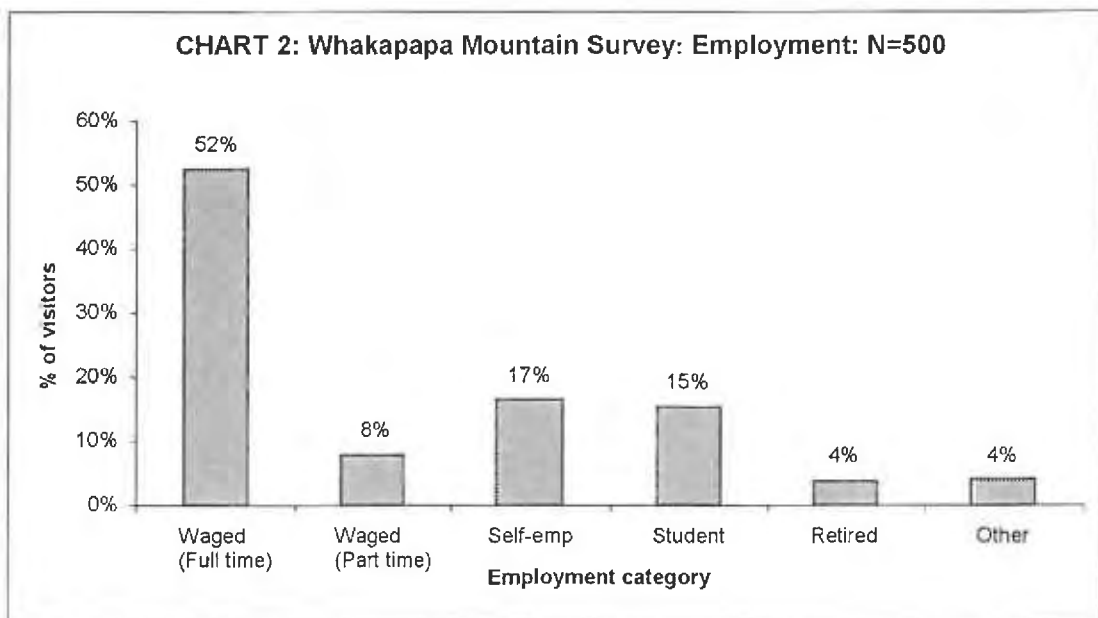
## WHAKAPAPA MOUNTAIN SURVEY

### WHAKAPAPA VISITOR DEMOGRAPHICS

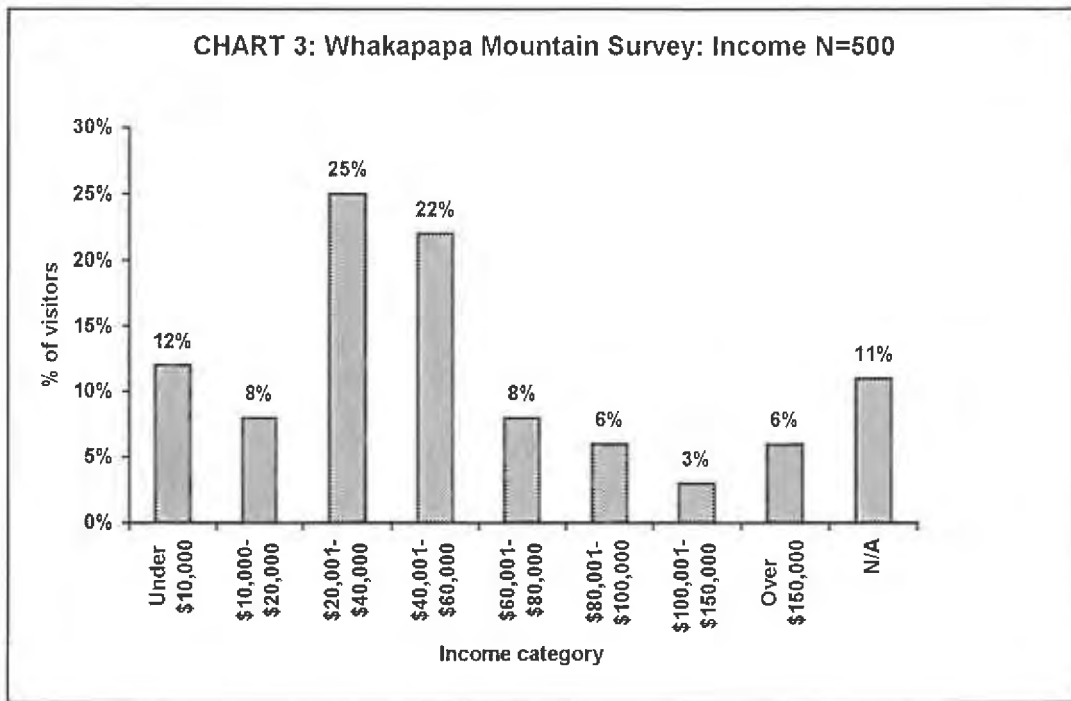
\* 56% of all visitors surveyed were Male while 44% were Female



- 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%)

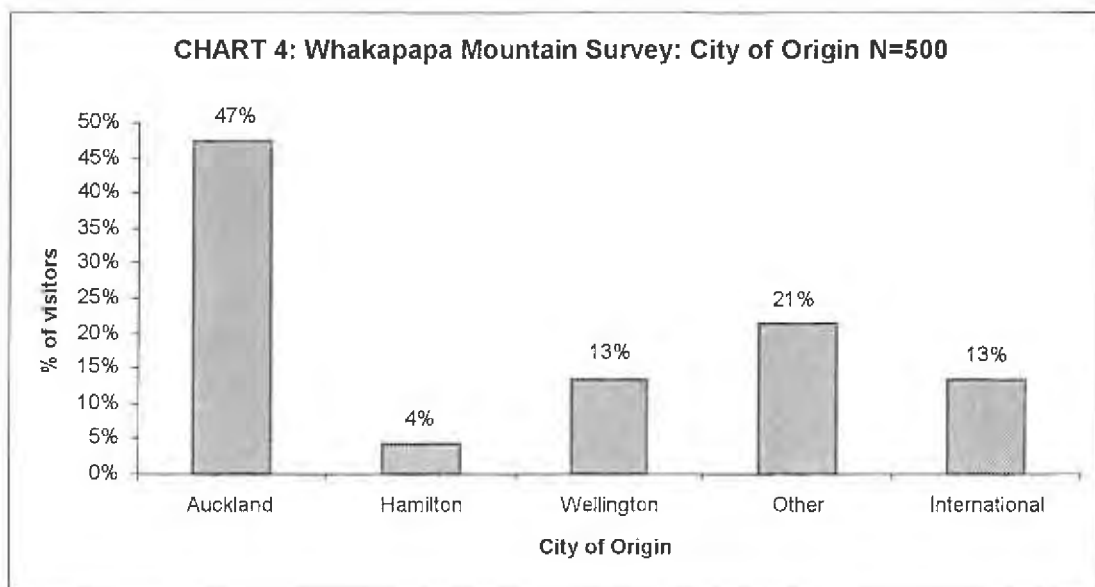


- Over half of all visitors are waged (full-time) employees (52%)
- Self-employed was the second highest employment category at 17%, closely followed by student at 15%

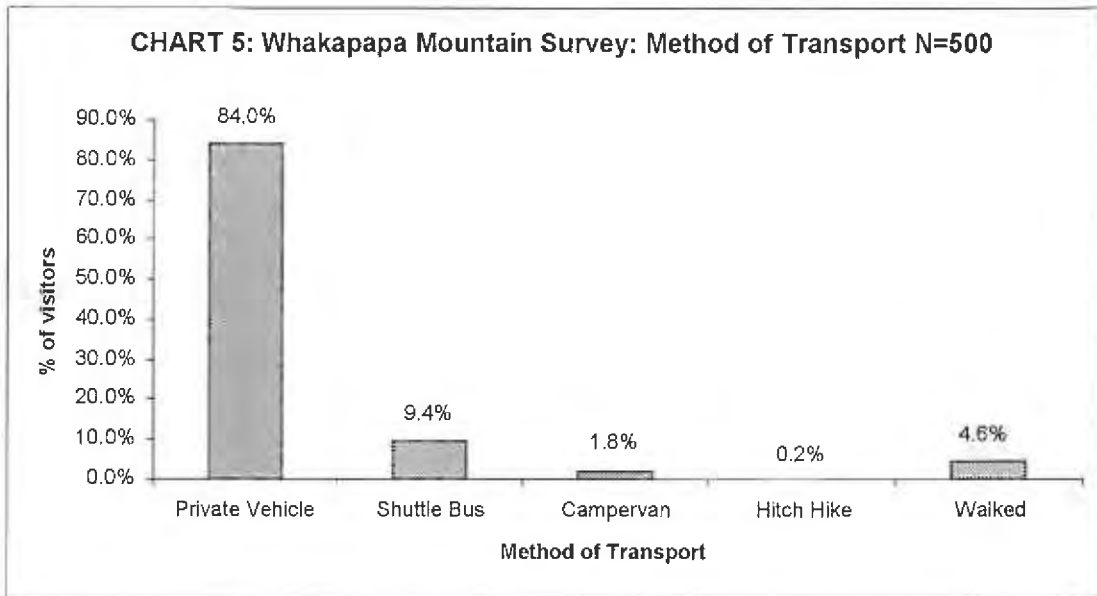


- 25% of visitors have an individual income between \$20,000 and \$40,000
- 22% of visitors have an individual income between \$40,000 and \$60,000

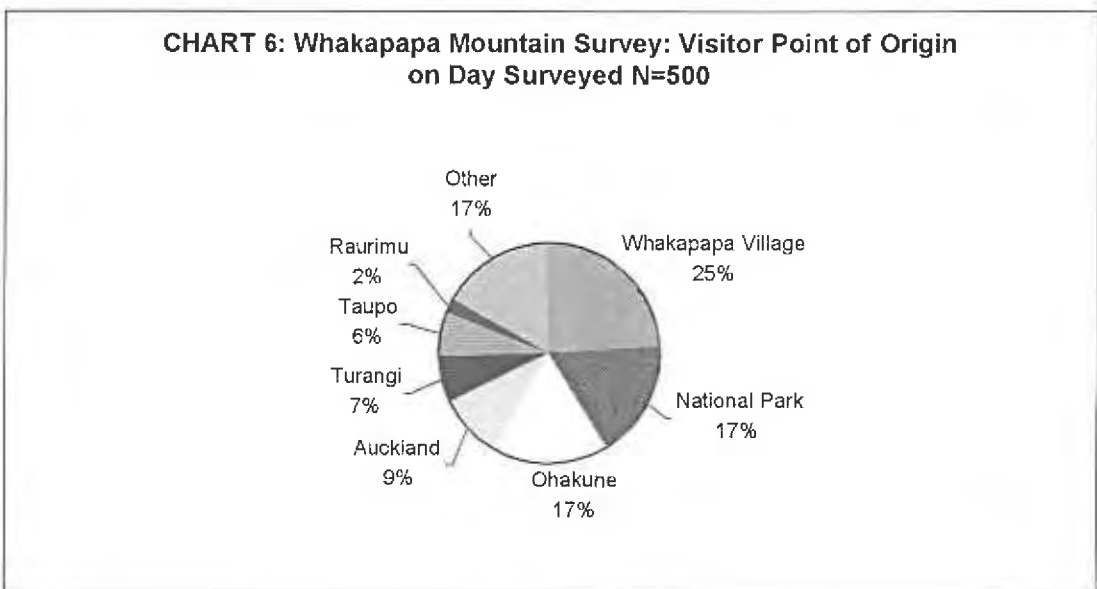
**WHAKAPAPA VISITOR CHARACTERISTICS**



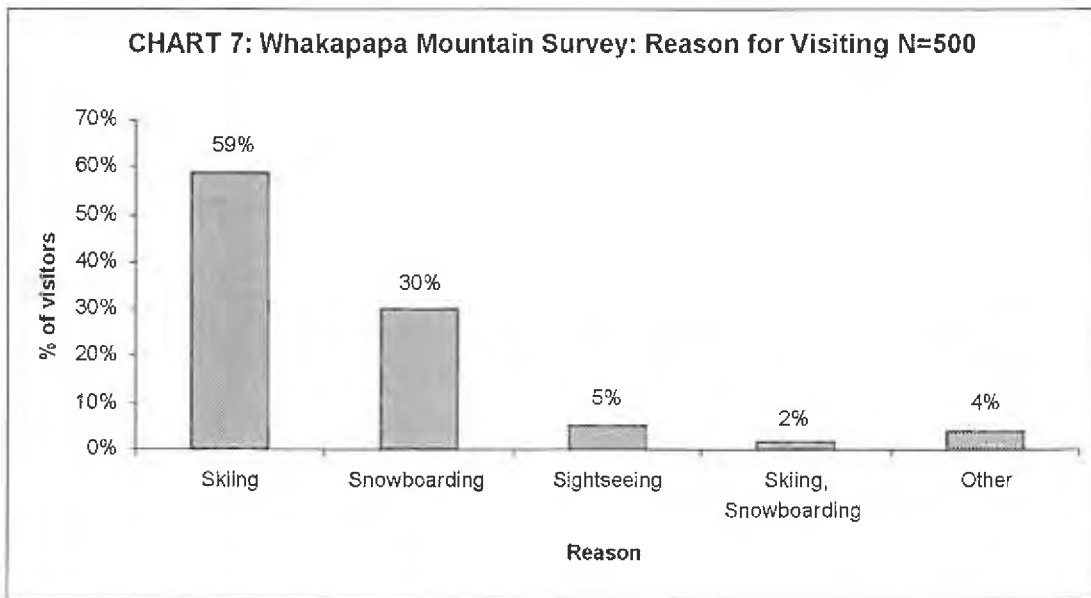
- Nearly half of all visitors to Whakapapa surveyed are from Auckland (47%)
- 13% of all visitors surveyed are from Wellington



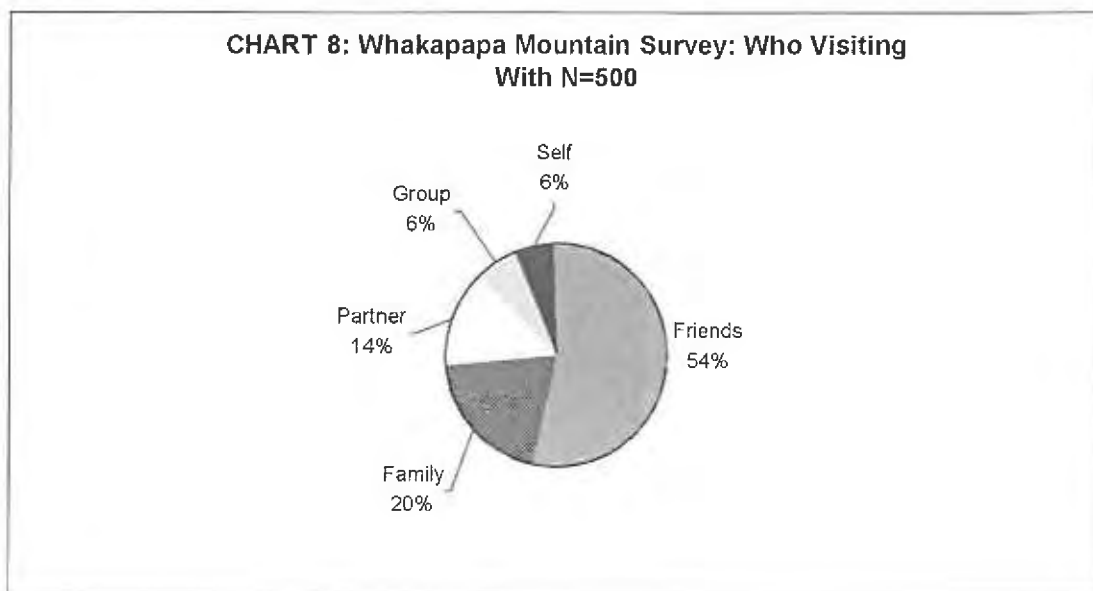
- 84% of all visitors travel to Whakapapa Ski Area by private vehicle
- Shuttle Bus was the next highest transport category (9.4%)



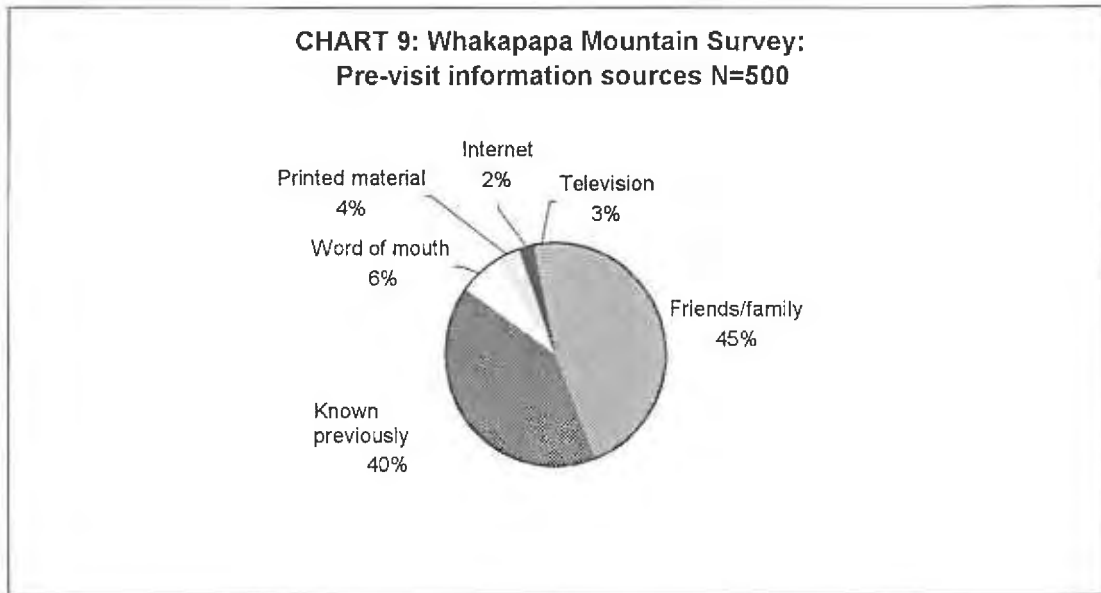
- The highest number of visitors came from Whakapapa Village (25%) on the day surveyed
- National Park and Ohakune were the next two visitor-generating areas, both accounting for 17% of all visitors surveyed



- 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

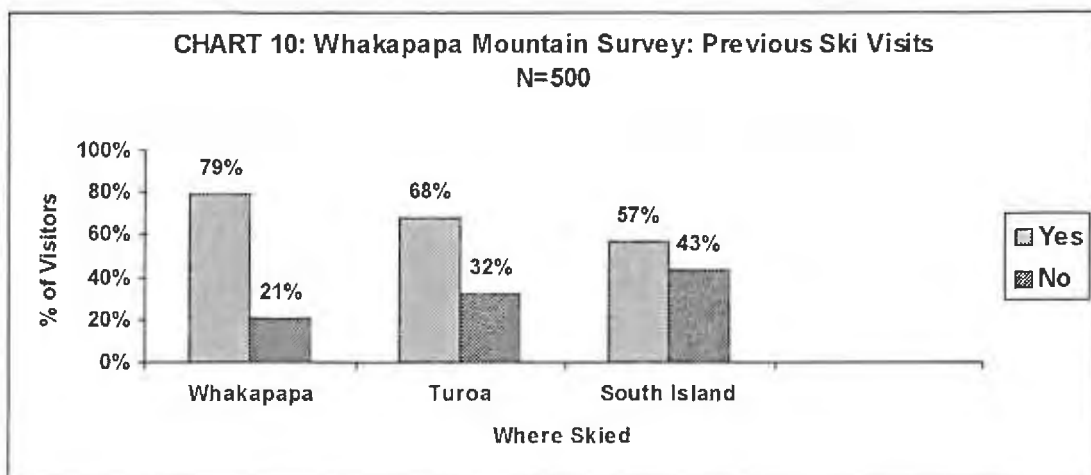


- 54% of all visitors visited with friends, 20% with family
- Partner's accounted for 14% of all travelling companions, while the smallest number of visitors travelled in a group or by themselves (both 6%)



- 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%

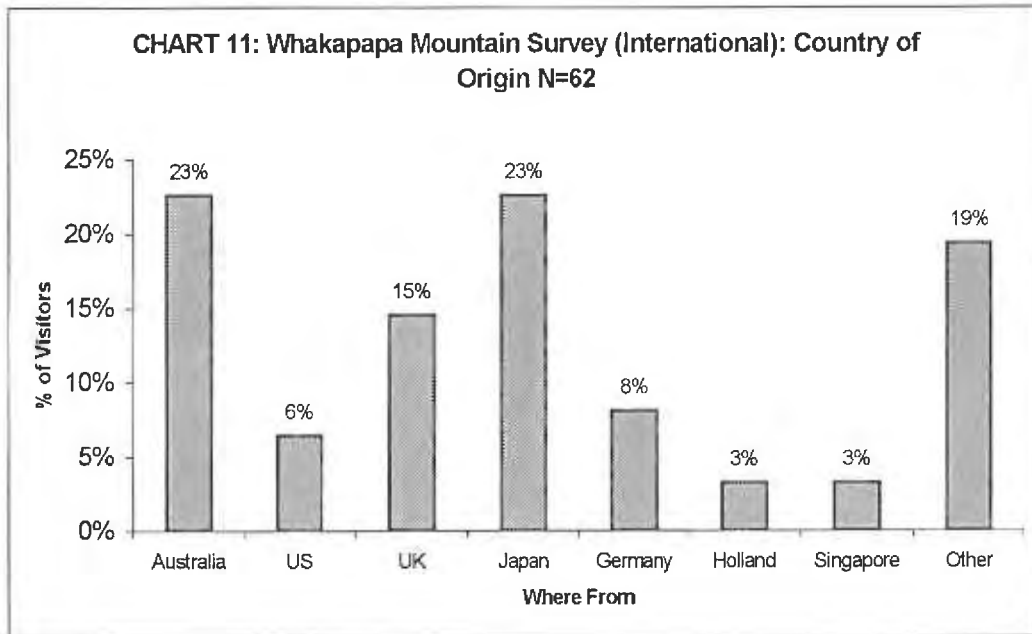
\* 88% of all visitors surveyed have access to the Internet while 12% do not



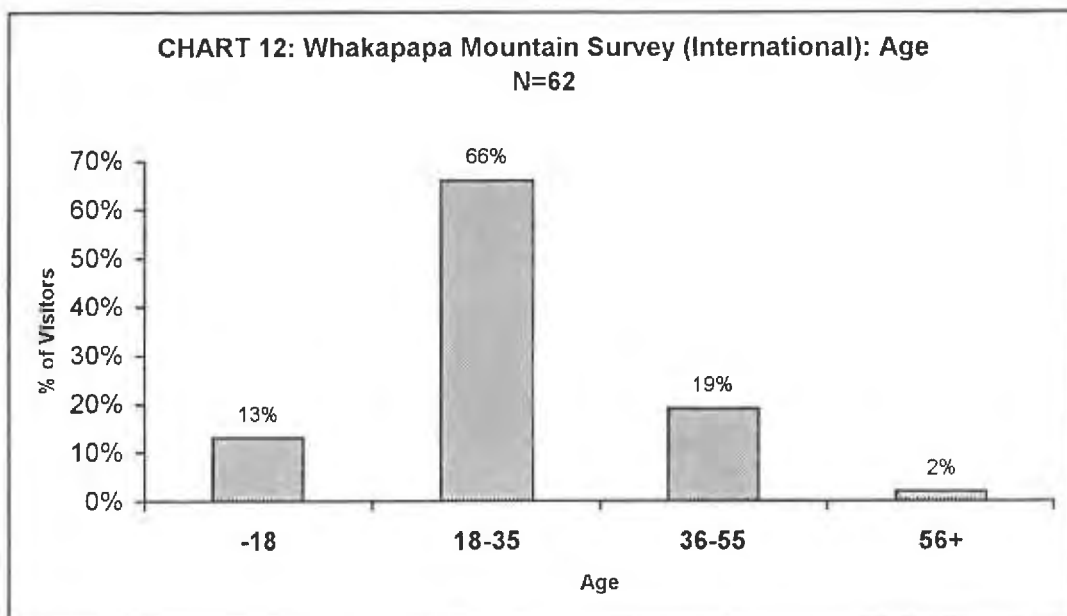
- 79% of respondents have skied/boarded Whakapapa previously
- 68% of respondents have skied/boarded Turoa previously
- 57% of all surveyed have visited the South Island to ski/board

## WHAKAPAPA MOUNTAIN SURVEY: INTERNATIONAL VISITORS

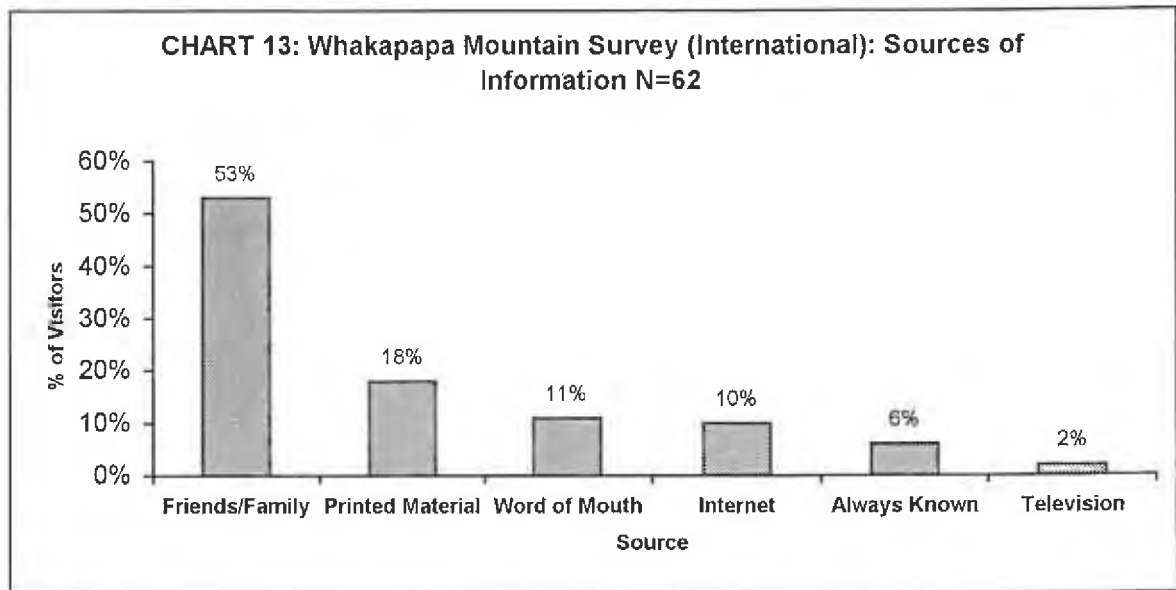
- \* 58% of all International visitors surveyed were Male while 42% were Female



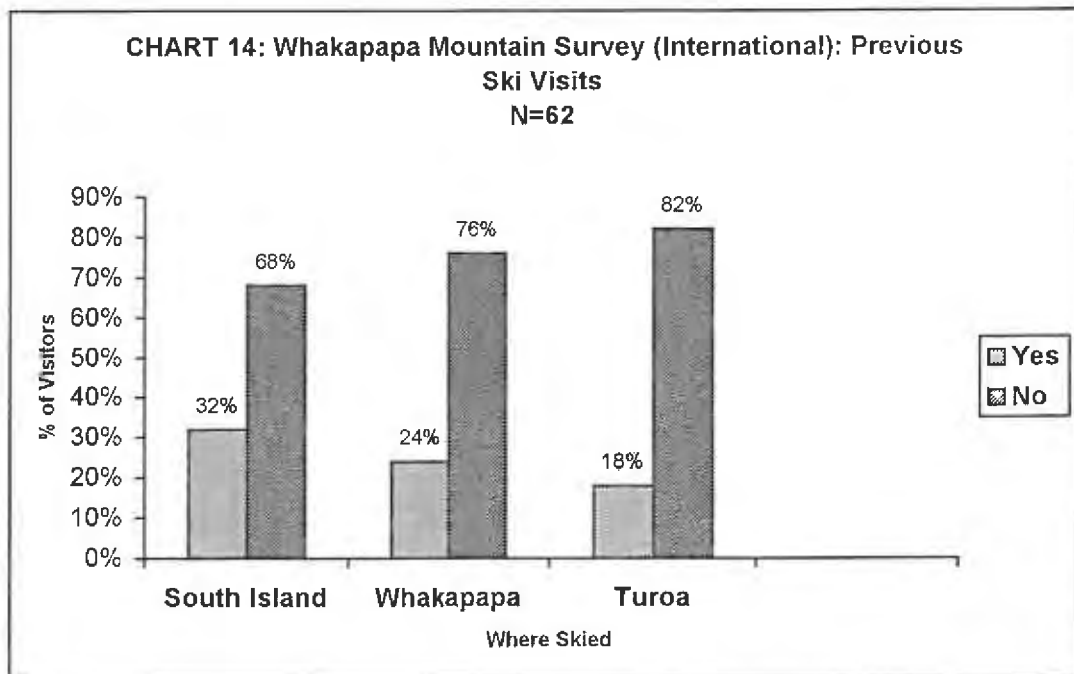
- Australia (23%) and Japan (23%) accounted for the majority of International visitors to Whakapapa
- The United Kingdom was the next largest market at 15%



- The majority of international visitors are between 18 and 35 (66%)
- The 56+ age group was the least significant at 2%



- 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



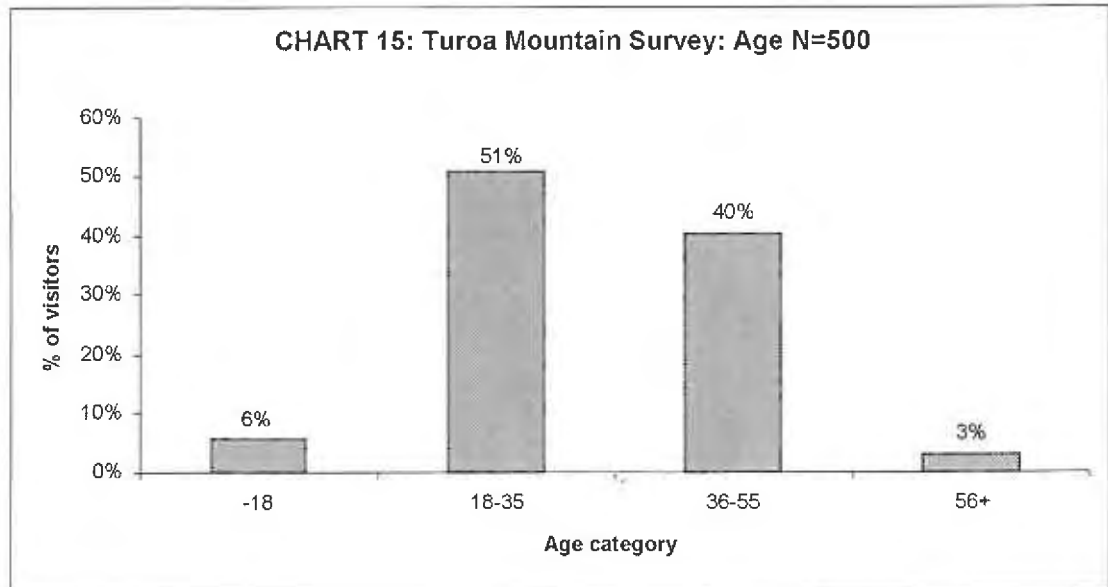
- 32% of International visitors have visited the South Island to ski/board
- 24% of International visitors have visited Whakapapa previously
- 18% of International visitors have visited Turoa previously



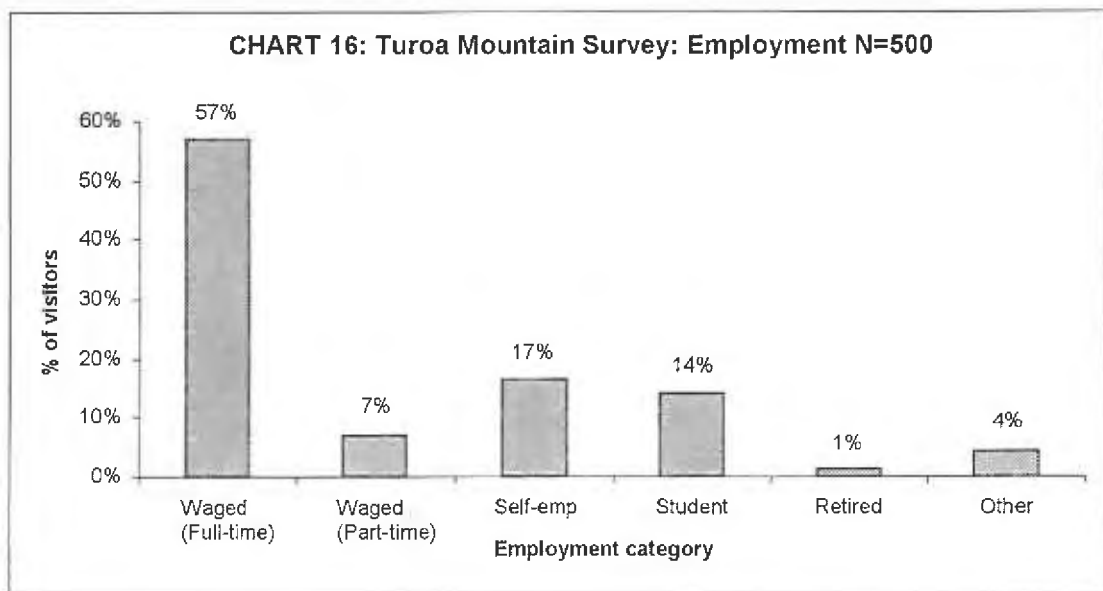
## TUROA MOUNTAIN SURVEY

### TUROA VISITOR DEMOGRAPHICS

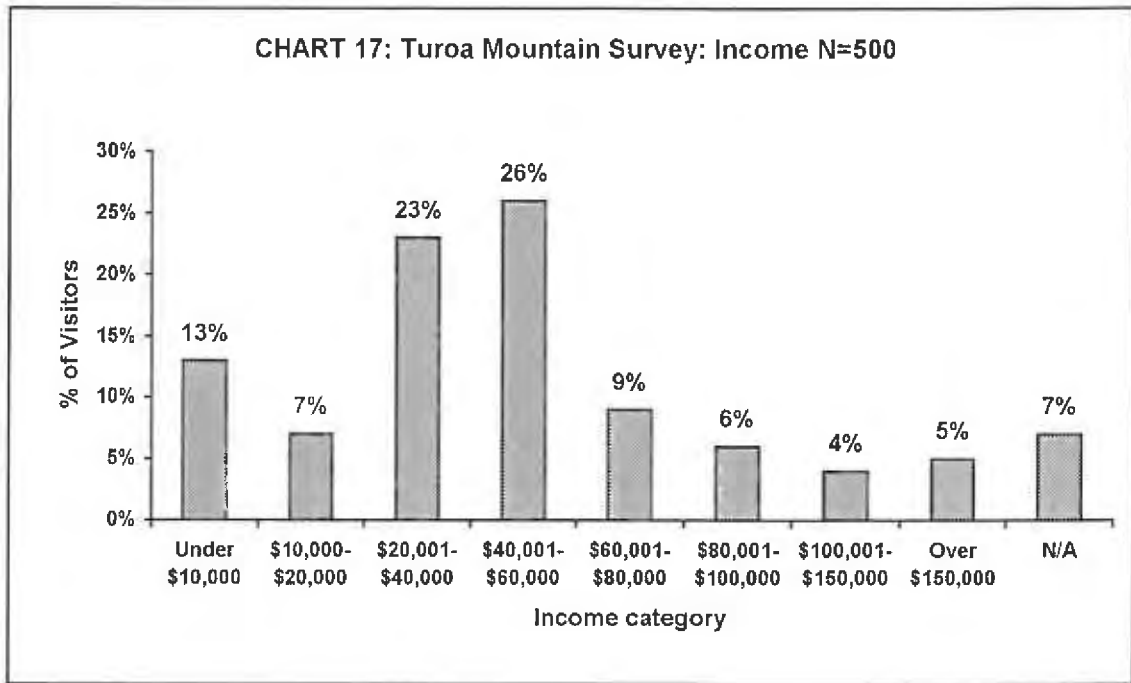
\* 52% of all visitors surveyed were Female while 48% were Male



- 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%)

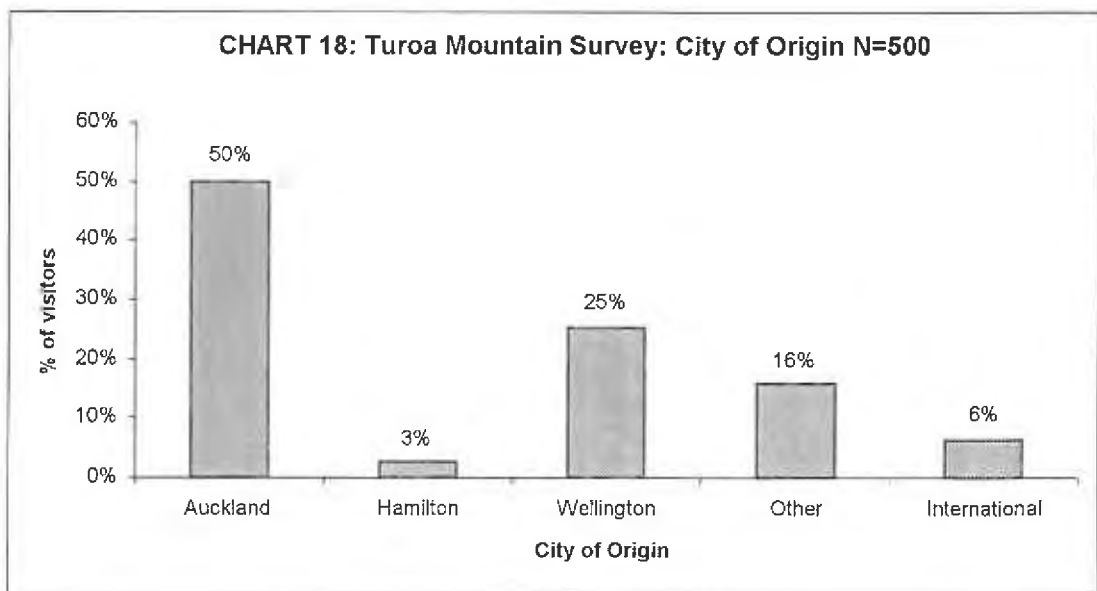


- Over half of all visitors are waged (full-time) employees (57%)
- Self-employed was the second highest employment category at 17%, closely followed by Student at 14%

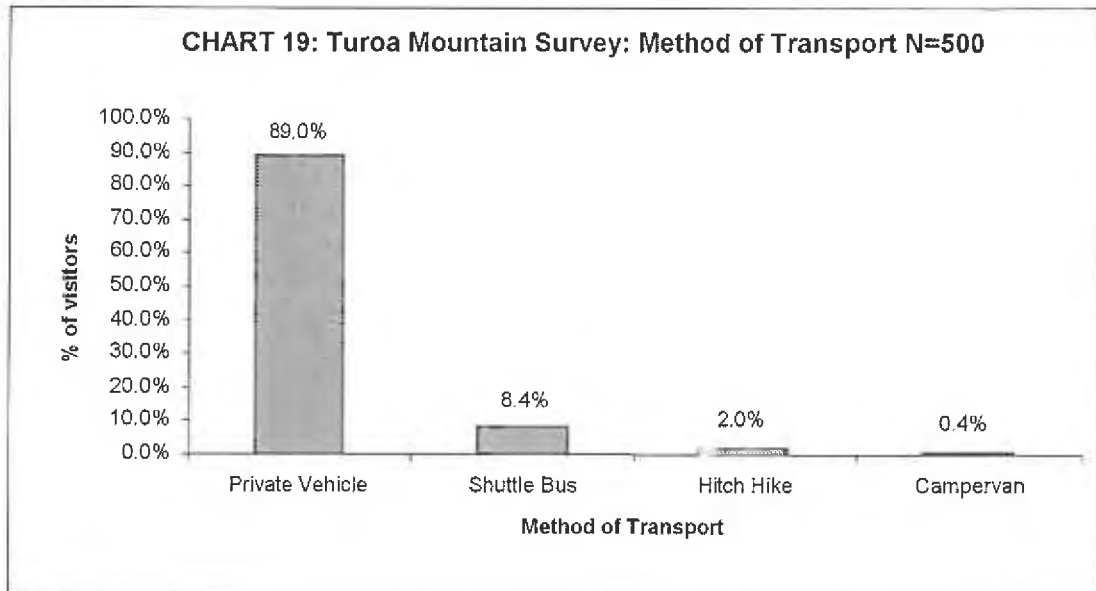


- 26% of visitors have an individual income between \$40,000 and \$60,000
- 23% of visitors have an individual income between \$20,000 and \$40,000
- 13% of visitors have an individual income under \$10,000

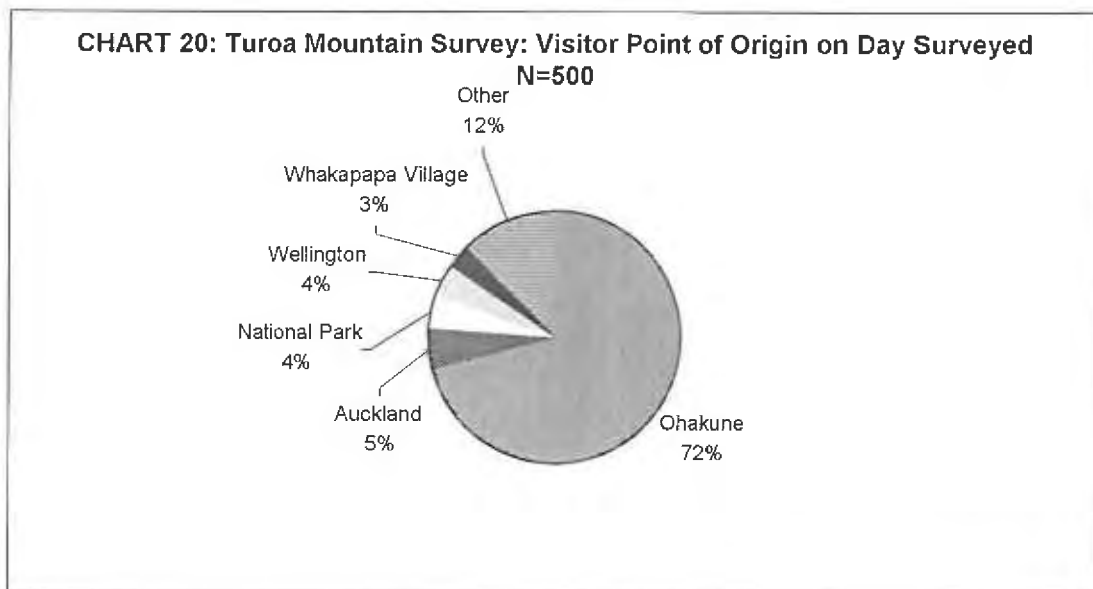
**TUROA VISITOR CHARACTERISTICS**



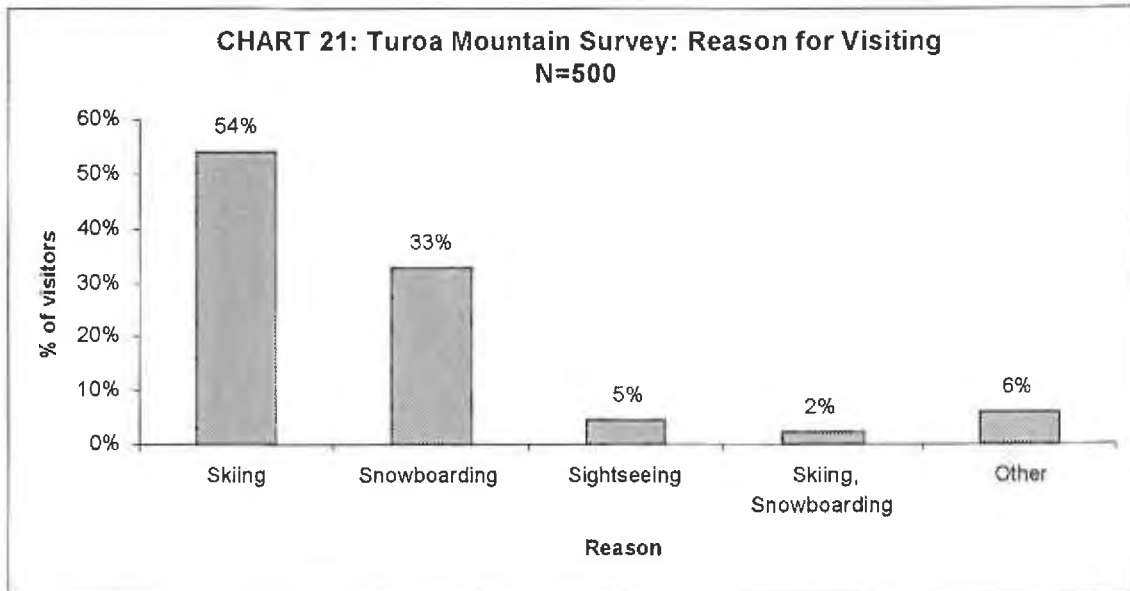
- Half of all visitors to Turoa surveyed are from Auckland (50%)
- 25% of all visitors surveyed are from Wellington
- 6% of all visitors surveyed are international



- 89% of all visitors travel to Whakapapa Ski Area by private vehicle
- Shuttle Bus was the next highest transport category (8.4%)

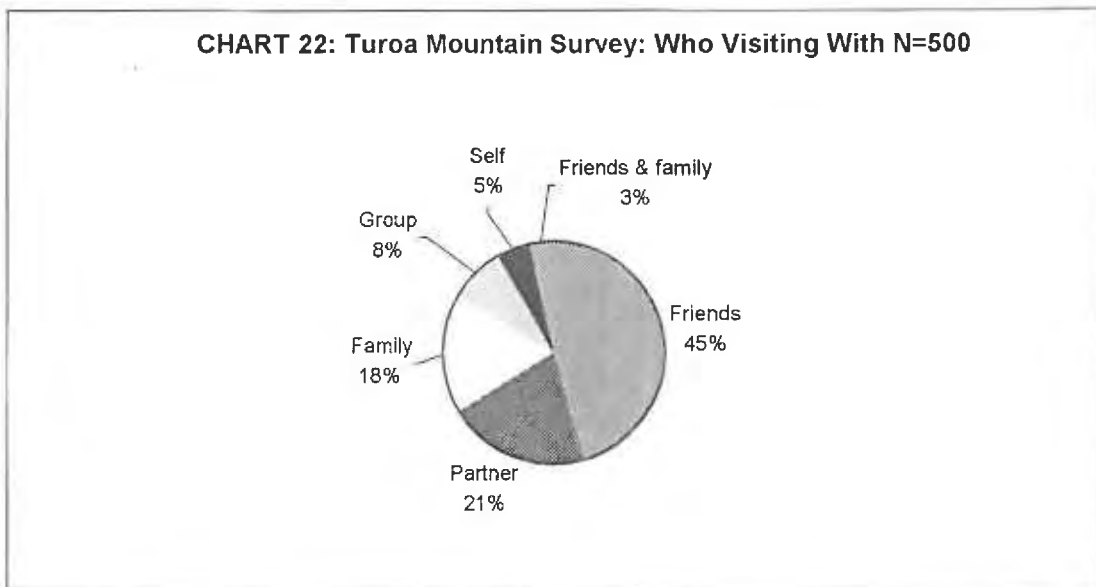


- The highest number of visitors came from Ohakune (72%) on the day surveyed
- Auckland is the next largest visitor-generating area, accounting for 5% of all visitors on the day of the survey, closely followed by Wellington and National Park (both 4%)

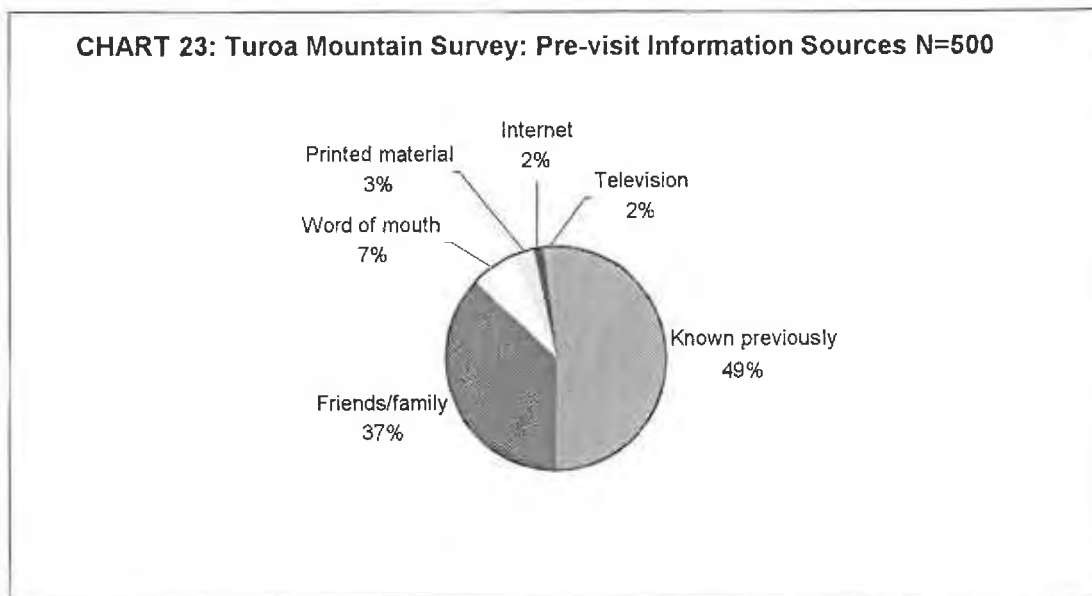


- A majority of all visitors to Turoa surveyed visited to ski (54%)
- Snowboarding was the next reason for visiting at 33%
- Sightseeing visitors constituted 5% of all visitors surveyed

\* 3% of all visitors surveyed indicated they were travelling as part of a packaged tour while 97% were not

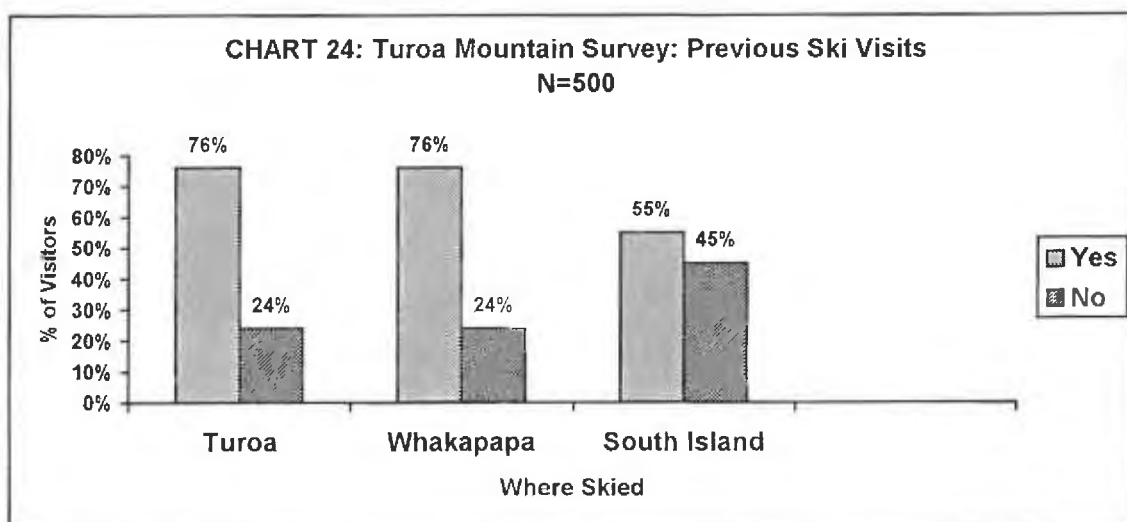


- 45% of all visitors visited with friends, 21% with their partner
- Family accounted for 18% of all travelling company, while the smallest number of visitors travelled with both friends and family (3%)
- 8% of all visitors surveyed visited in a group



- 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%

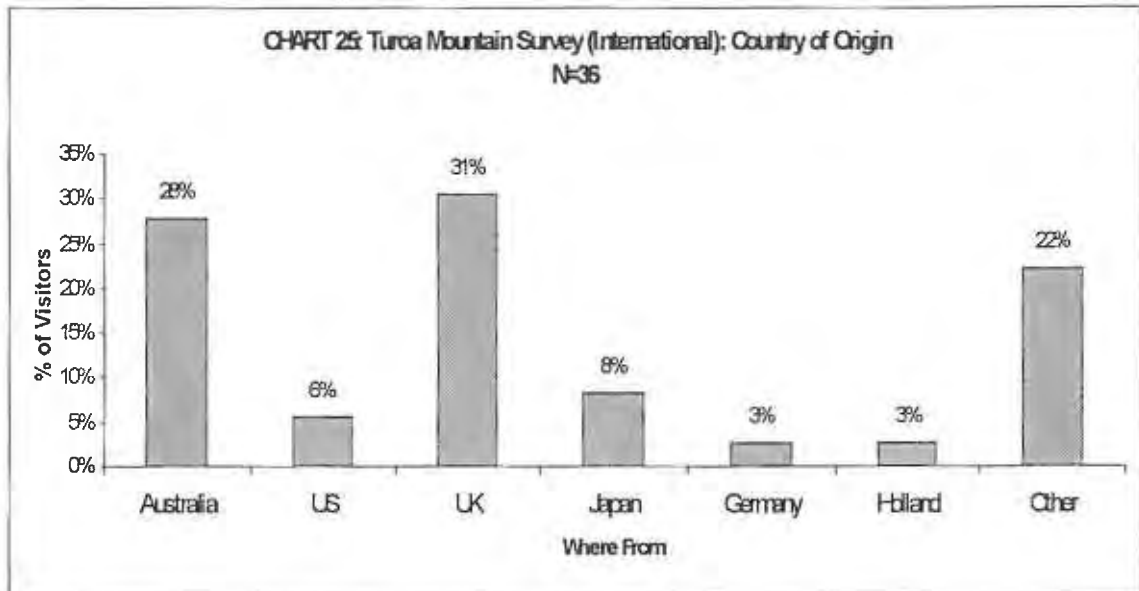
\* 93% of all visitors surveyed have access to the Internet while 7% do not



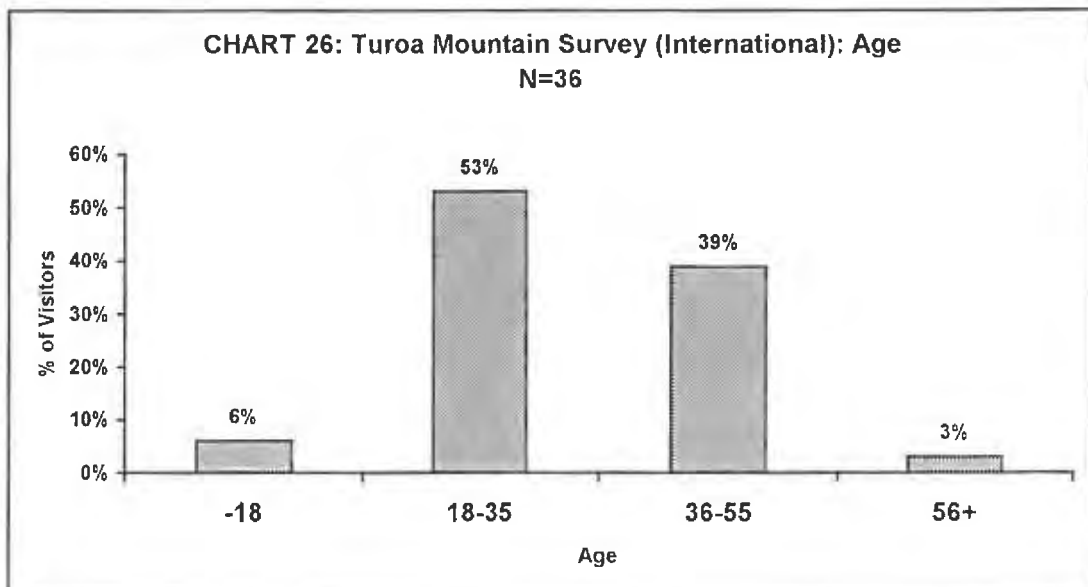
- 76% of respondents have previously visited both Whakapapa and Turoa on a ski visit
- 55% of respondents have previously visited the South Island on a ski visit

### TUROA INTERNATIONAL VISITORS

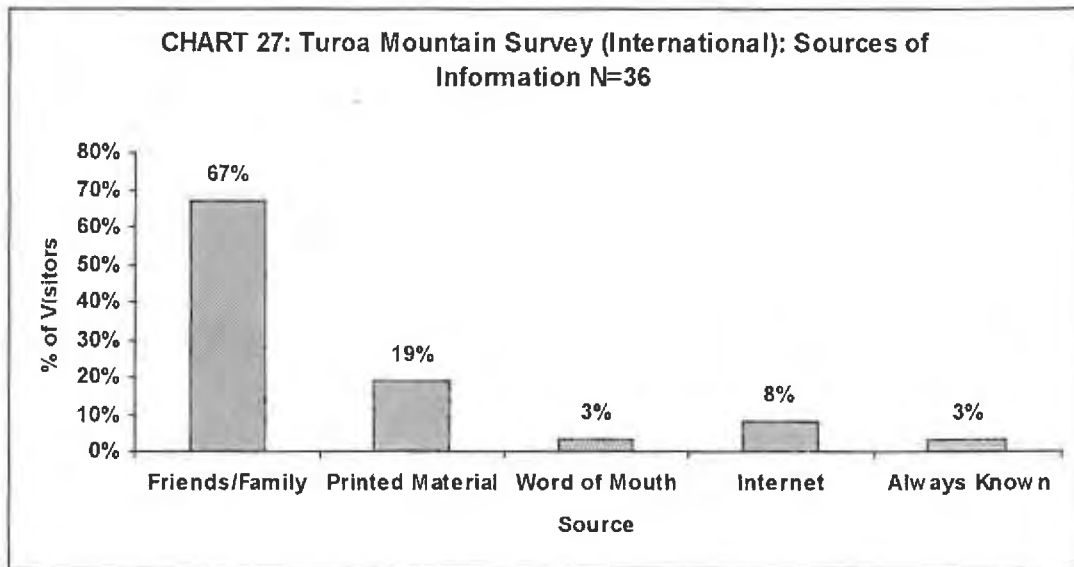
- \* 56% of all International visitors surveyed were Male while 44% were Female



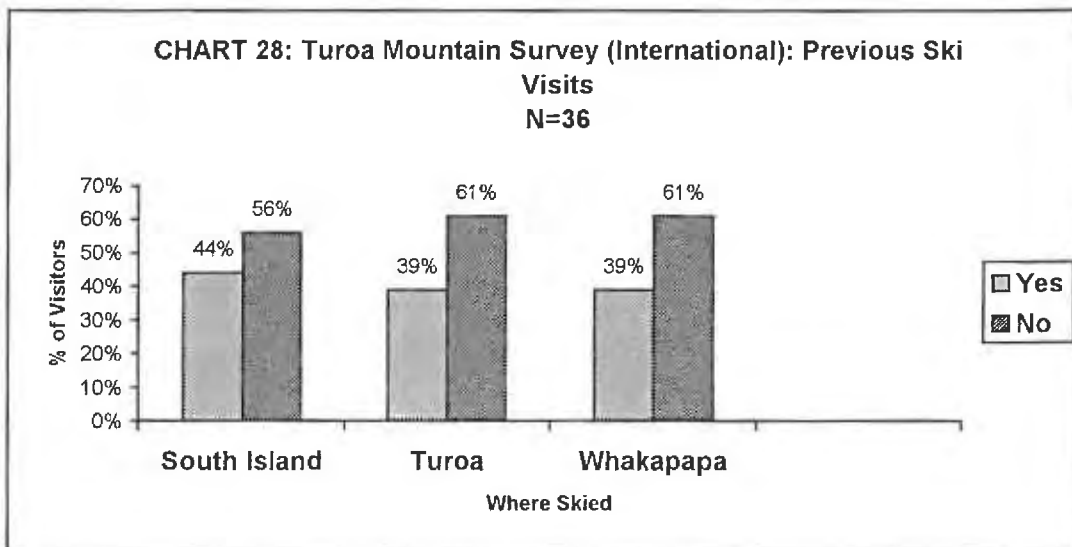
- The United Kingdom accounted for 31% of International visitors to Turoa
- Australia is the next highest market at 28%



- 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

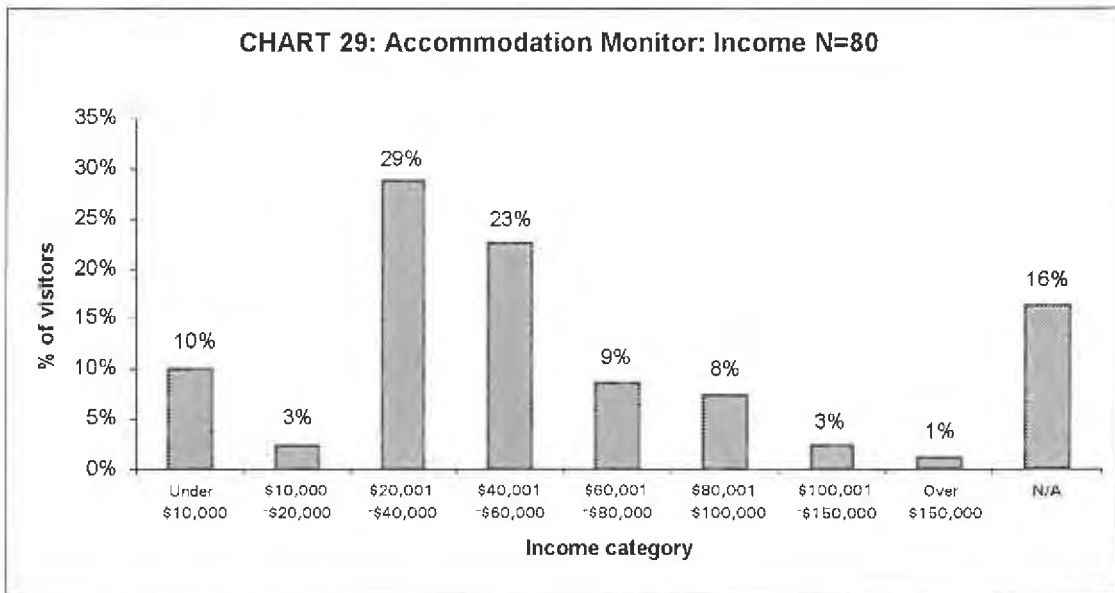
### Internet Access:

- 94% of respondents have access to the Internet whereas 6% do not

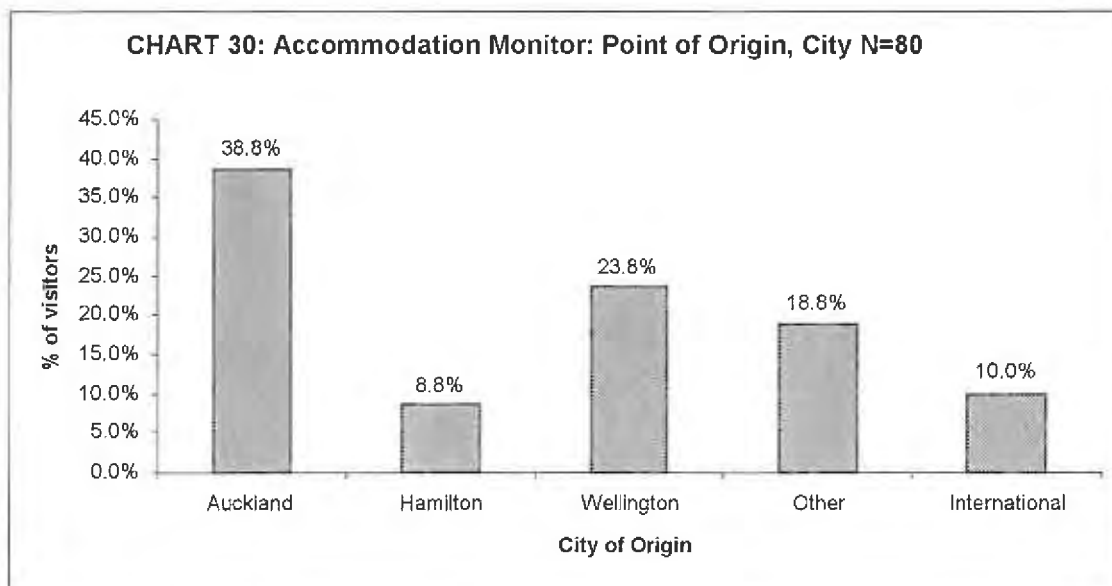
### Pre-booked Accommodation:

- 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%
<b>Total</b>	<b>\$43.87</b>	<b>100%</b>

# 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%
<b>Total</b>	<b>\$72.55</b>	<b>100%</b>

- 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%
<b>Total</b>	<b>\$44.77</b>	<b>100%</b>

\* 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%
<b>Total</b>	<b>\$77.49</b>	<b>100%</b>

- 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%
<b>Total</b>	<b>\$119.34</b>	<b>100.00%</b>

- 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).

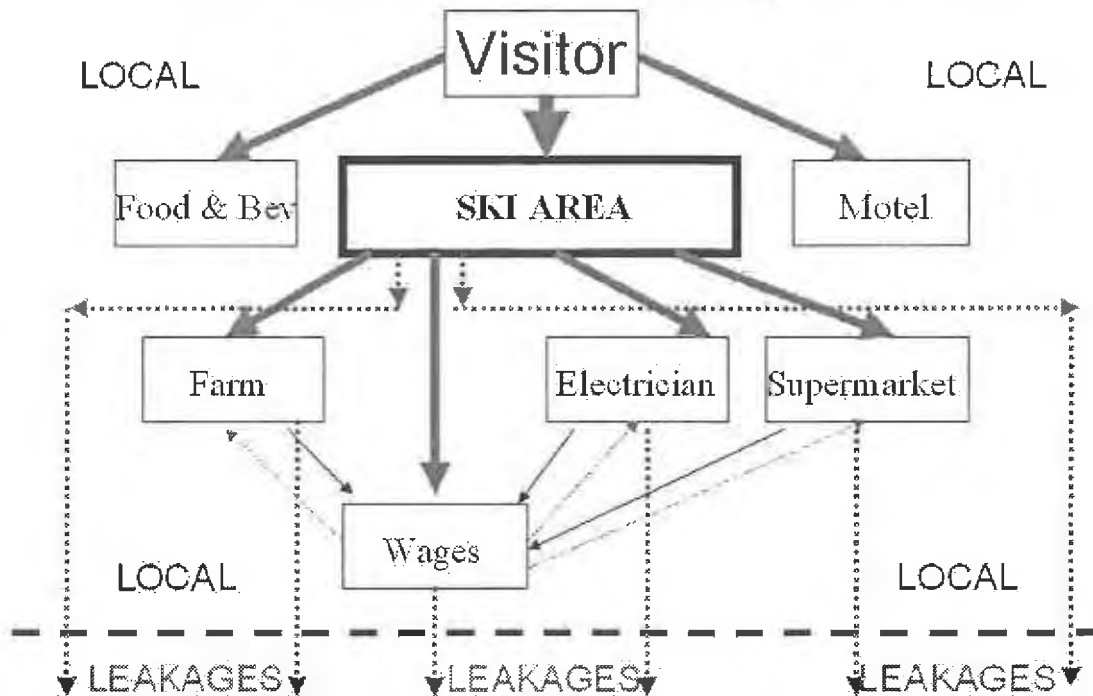
Another company may employ 100 staff and generate sales revenue of \$1 million. This means that one job is generated for every \$10,000 that the firm turns over. In this case the employment generation coefficient is 1.0.

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
<b>Total</b>	<b>\$17,728.00</b>	<b>100.00%</b>	<b>\$168.82</b>

- 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
<b>Total</b>	<b>\$707.50</b>	<b>100%</b>	<b>\$6.68</b>

- 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**

<b>INCOME GENERATION</b>	<b>Cents per skier dollar spent</b>
Direct Income	0.33
Indirect Income	0.04
Induced	0.05
<b>TOTAL</b>	<b>0.42</b>
<b>EMPLOYMENT GENERATION</b>	<b>Jobs per \$10,000 of skier spend</b>
Direct Employment	0.36
Indirect Employment	0.05
Induced	0.06
<b>TOTAL</b>	<b>0.47</b>

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 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).

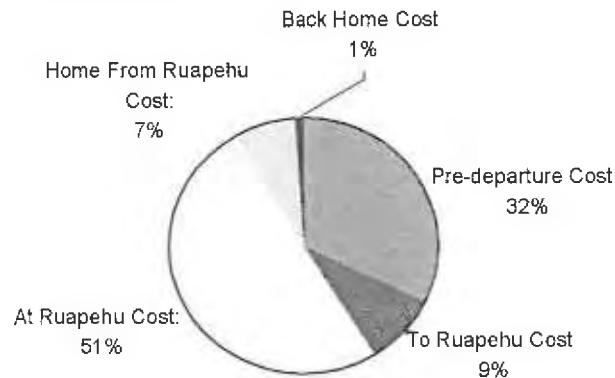
The respondents to the Expenditure Diary were not a random sample of Mt Ruapehu users. Rather, the respondents were drawn from the RAL database of previous visitors. This factor and the sample size mean the results should not be used as a stand-alone set of data. However, used in conjunction with other 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

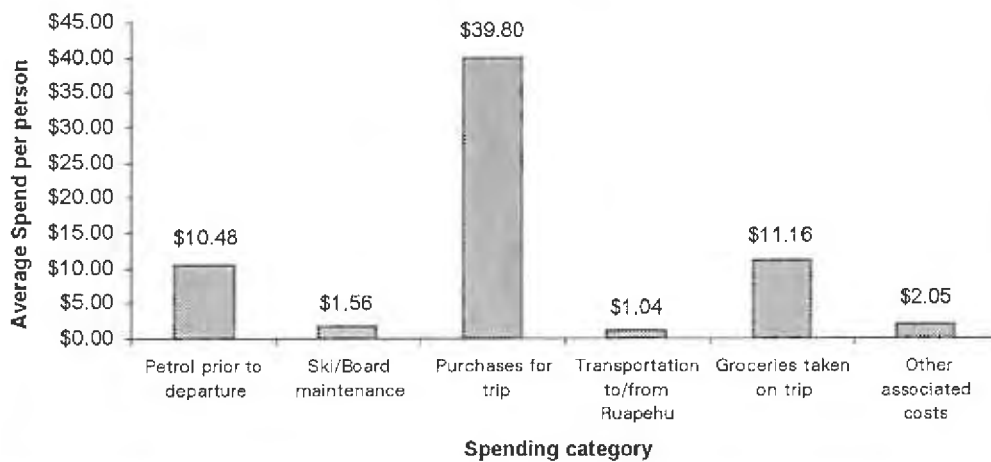
- The average Expenditure Diary respondent spends a total of \$205.26 on a ski trip
- The average Expenditure Diary respondent spends just under half of total ski trip expenditure on pre-trip and travel related expenses (49.4%)
- The second highest spending time is prior to ski trip departure, when 32.2% (\$66.09) is spent

**CHART 41: Expenditure Diary: Total Spending Proportions N=25**

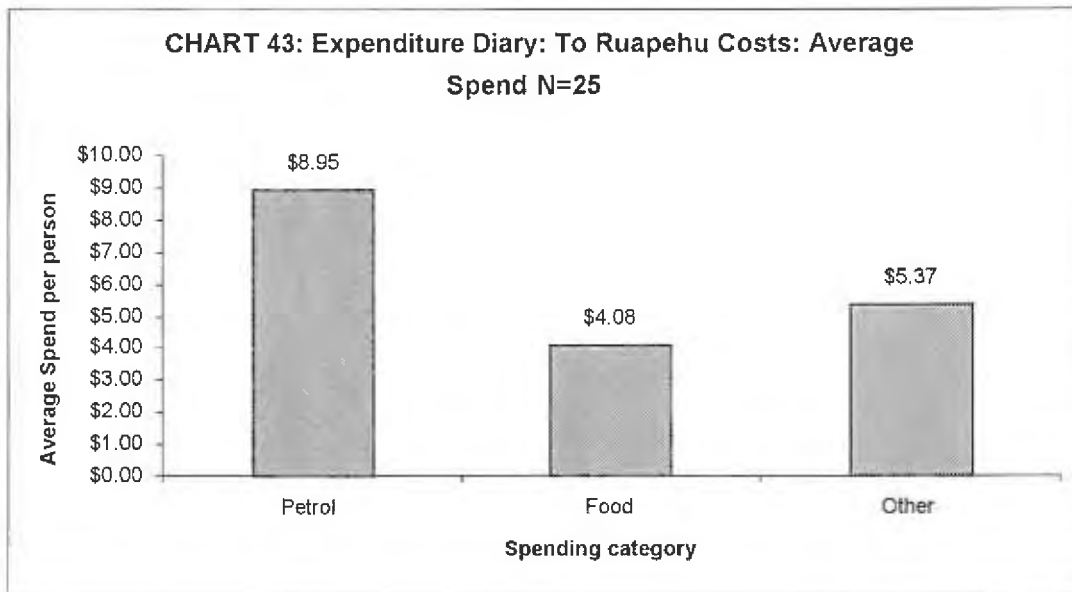


- Just over half of all ski trip expenditure occurred while At Ruapehu (51%)
- The second highest spending time is the time prior to Ski trip departure, when 32% of total expenditure is incurred

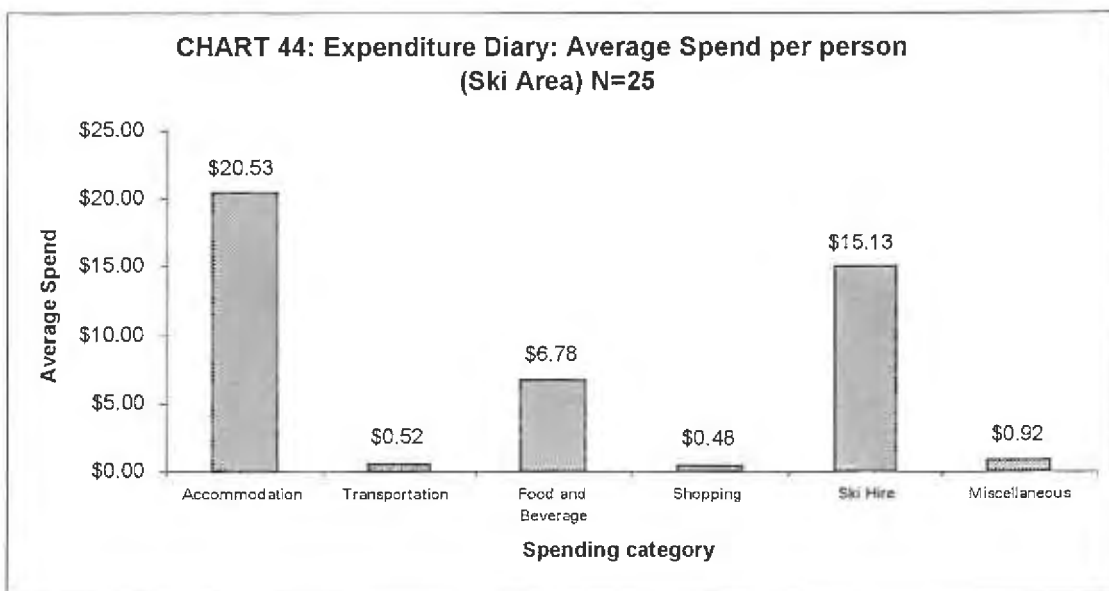
**CHART 42: Expenditure Diary: Pre-Departure Costs: Average Spend n=25**



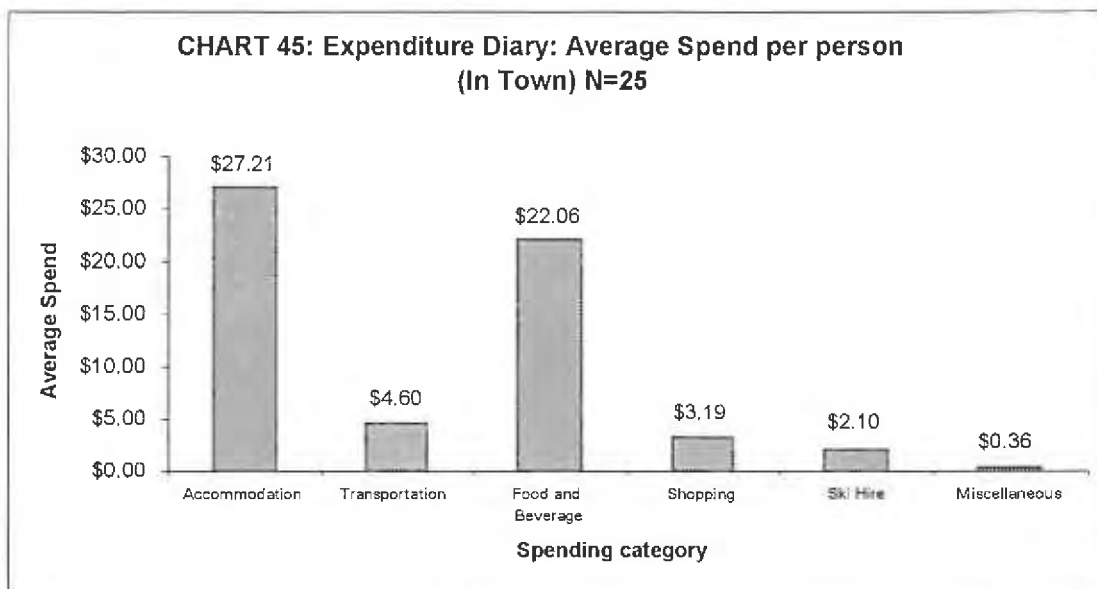
- The highest spending category for the average respondent is purchases for the trip (\$39.80)
- Groceries taken on the trip rate second (\$11.16), and petrol purchases prior to departure (\$10.48) are the next most significant item
- The lowest spending category is transportation to/from Ruapehu (\$1.04)
- The total average pre-departure spend is \$66.09



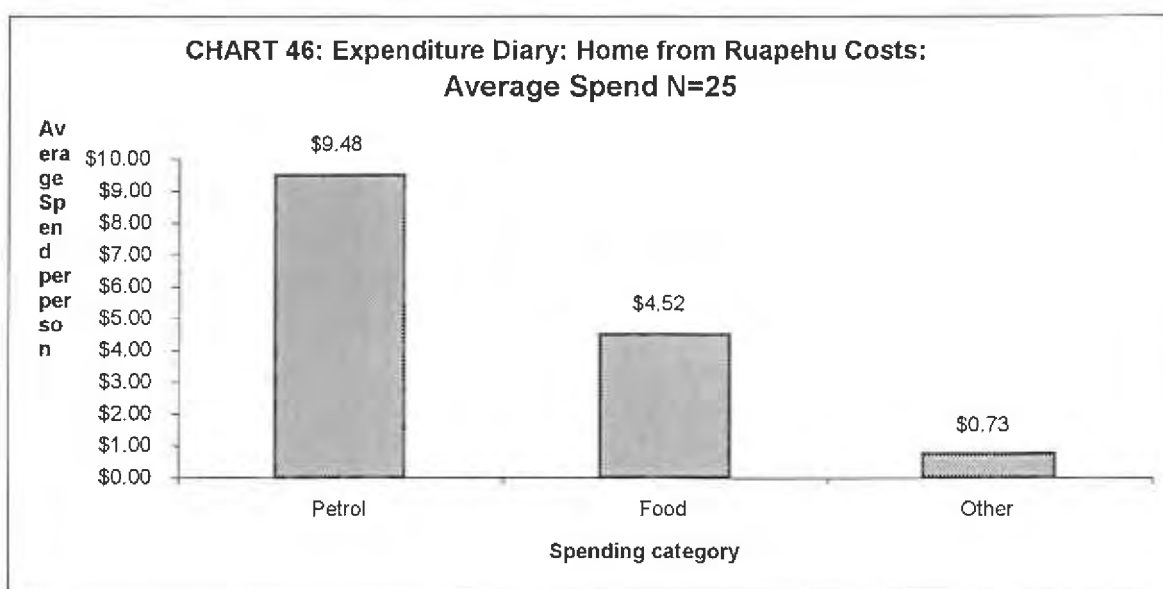
- Petrol is the biggest expense on the way to Ruapehu (\$8.95)
- Food is the smallest 'to Ruapehu' cost (\$4.08)
- The total average 'to Ruapehu' cost is \$18.40



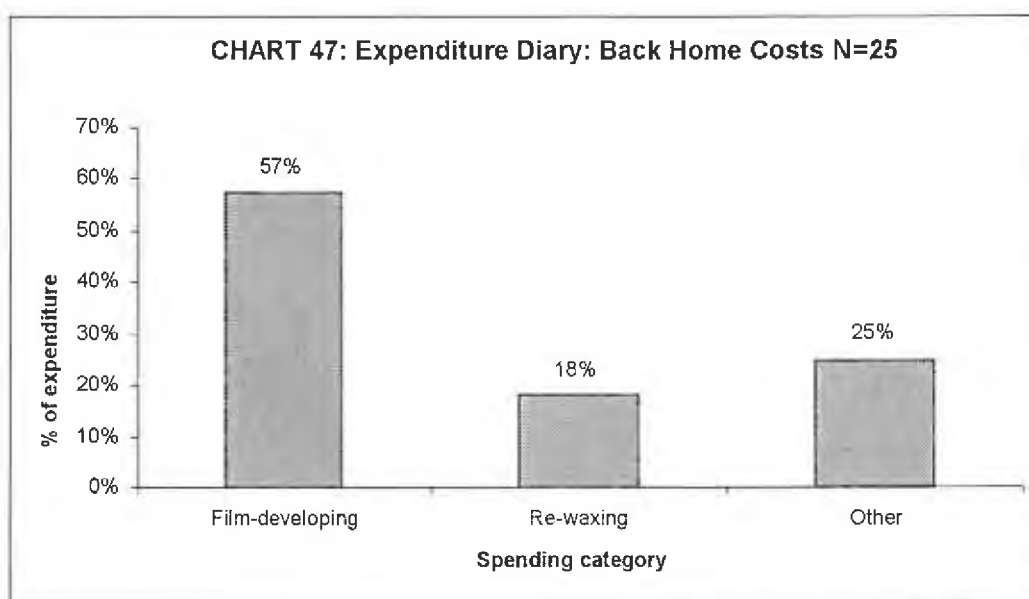
- Accommodation is the category with the highest spend on the ski-field (\$20.53)
- Ski hire is the second highest category at \$15.13 per person per day on the ski-field
- Transportation is the lowest spending category, at \$0.52 per day
- The total average spend, at the ski area, is \$44.36



- 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**

<b>Where Stopped (Petrol)</b>	<b>% of respondents</b>
Te Kuiti	26.7%
Otorahanga	13.3%
Turangi	6.7%
Bulls	13.3%
Other	40%
Total	100%
<b>Where Stopped (Food)</b>	
Te Kuiti	26.3%
Bulls	10.5%
Turangi	10.5%
Taupo	10.5%
Other	42.2%
Total	100%
<b>Where Stopped (Other)</b>	
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**

<b>Where Stopped (Petrol)</b>	<b>% of respondents</b>
Taumaranui	11%
Otorahanga	11%
Turangi	17%
Ngarauwahia	11%
Other	50%
Total	100%
<b>Where Stopped (Food)</b>	
Te Kuiti	29%
Ngarauwahia	10%
Turangi	10%
Taumaranui	10%
Other	41%
Total	100%
<b>Where Stopped (Other)</b>	
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 knowledgeably 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 unrateable 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
<b>Positive</b>	9	Improved greatly in recent years
<b>Negative</b>	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
<b>Positive</b>	30	Service has improved since merger Cheaper season passes are excellent Staff are very friendly and helpful
<b>Negative</b>	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
<b>Positive</b>	30	Staff are outstanding, friendly and helpful Service has improved since merger Cheaper season passes are excellent
<b>Negative</b>	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
<b>Positive</b>	0	
<b>Negative</b>	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
<b>Positive</b>	6	Good to see an improvement
<b>Negative</b>	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
<b>Positive</b>	0	
<b>Negative</b>	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 the 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 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 <small>(passes, skis, chains, lessons, etc.)</small>	Food & Drink	Product Purchases <small>(clothing, skis, etc)</small>	Other <small>(please specify)</small>
Spend \$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**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 <small>(souvenirs etc)</small>	Shopping <small>(groceries)</small>	Mountain transfers	Other Expenses <small>(please specify, eg fuel, tours etc)</small>
Spend \$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

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 <small>(passes, skis, chains, lessons, etc.)</small>	Food & Drink	Product Purchases <small>(clothing, skis, etc)</small>	Other <small>(please specify)</small>
Spend \$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

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 <small>(souvenirs etc)</small>	Shopping <small>(groceries)</small>	Mountain transfers	Other Expenses <small>(please specify, eg fuel, tours etc)</small>
Spend \$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**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.

---



---



---



---



---



---



---



---



---



---



**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 \$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**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 \$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

# 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 <small>(passes, skis, chains, lessons, etc.)</small>	Food & Drink	Product Purchases <small>(clothing, skis, etc)</small>	Other <small>(please specify)</small>
Spend \$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

## 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 <small>(souvenirs etc)</small>	Shopping <small>(groceries)</small>	Mountain transfers	Other Expenses <small>(please specify, eg fuel, tours etc)</small>
Spend \$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>



## 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.	\$ <input style="width: 100%; height: 20px;" type="text"/>
Transportation to/from Ruapehu: eg) vehicle rental, bus, train tickets etc.	\$ <input style="width: 100%; height: 20px;" type="text"/>
Groceries taken on trip:	\$ <input style="width: 100%; height: 20px;" type="text"/>
Ski / Snowboard Maintenance: eg) waxing, edge grinding etc.	\$ <input style="width: 100%; height: 20px;" type="text"/>
Purchase of clothes and/or Equipment for trip:	\$ <input style="width: 100%; height: 20px;" type="text"/>
Other associated costs: eg) babysitter, house sitter, pet kennel, gym/fitness etc.	\$ <input style="width: 100%; height: 20px;" type="text"/>
<b>Total Pre-departure Costs:</b>	<b>\$ <input style="width: 100%; height: 20px;" type="text"/></b>

### "TO RUAPEHU COSTS"

Purchase:	Where purchased: eg) Hamilton, Taupo, Palmerston North etc.	Cost of Purchase:	
Petrol	Stop 1:	Stop 1 \$:	Stop 2 \$:
	Stop 2:		
Food (meals, snacks etc)	Stop 1:	Stop 1 \$:	Stop 2 \$:
	Stop 2:		
Other (oil, antifreeze etc)	Stop 1:	Stop 1 \$:	Stop 2 \$:
	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.
<b>Accommodation</b> (including linen hire, room charges etc)	Field: \$	Town: \$
<b>Transportation</b> (petrol, mountain transfers etc)	Field: \$	Town: \$
<b>Food and Beverage</b> (restaurants, pubs, cafes etc)	Field: \$	Town: \$
<b>Shopping</b> (groceries etc)	Field: \$	Town: \$
<b>Ski Hire</b> (clothing, equipment, mountain passes, lessons, chains, locker hire etc)	Field: \$	Town: \$
<b>Miscellaneous</b> (souvenirs, tours, activities, attractions, movies etc)	Field: \$	Town: \$



**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 \$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**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?





**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 \$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**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 \$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

What is your gender? Male  Female

Do you have access to the internet? Y  N

Which age group do you belong to?

under 15	<input type="checkbox"/>	15-24	<input type="checkbox"/>
25-34	<input type="checkbox"/>	35-44	<input type="checkbox"/>
45-54	<input type="checkbox"/>	55-64	<input type="checkbox"/>
65-74	<input type="checkbox"/>	Over 74	<input type="checkbox"/>

What is your highest level of education?

School	<input type="checkbox"/>
Tertiary certificate or diploma	<input type="checkbox"/>
Undergraduate degree	<input type="checkbox"/>
Postgraduate degree	<input type="checkbox"/>

What is your employment situation while working at Mt Ruapehu?

Full time wage or salary	<input type="checkbox"/>	Part time	<input type="checkbox"/>	Casual/On call	<input type="checkbox"/>
--------------------------	--------------------------	-----------	--------------------------	----------------	--------------------------

What is your employment situation normally (while not working at Mt Ruapehu)?

Full time wage or salary	<input type="checkbox"/>	Part time/casual	<input type="checkbox"/>	Self-employed	<input type="checkbox"/>
Student	<input type="checkbox"/>	Retired	<input type="checkbox"/>	Other	<input type="checkbox"/>

What is your annual personal income before tax?

under \$10,000	<input type="checkbox"/>	\$10,000-20,000	<input type="checkbox"/>	\$20,001-40,000	<input type="checkbox"/>	\$40,001-60,000	<input type="checkbox"/>
\$60,001-80,000	<input type="checkbox"/>	\$80,001-100,000	<input type="checkbox"/>	\$100,001-150,000	<input type="checkbox"/>	over \$150,000	<input type="checkbox"/>

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 (%)
<b>TOTAL INCOME</b>		

#### Annual Costs Table

Cost Category	Payments made to...		Total (including other areas)
	Ohakune, Whakapapa Village, and National Park (including Ski Areas)	Ruapehu Region	
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)			

## **Appendix 6**

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.

---

#### 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 Paramount 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 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 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.

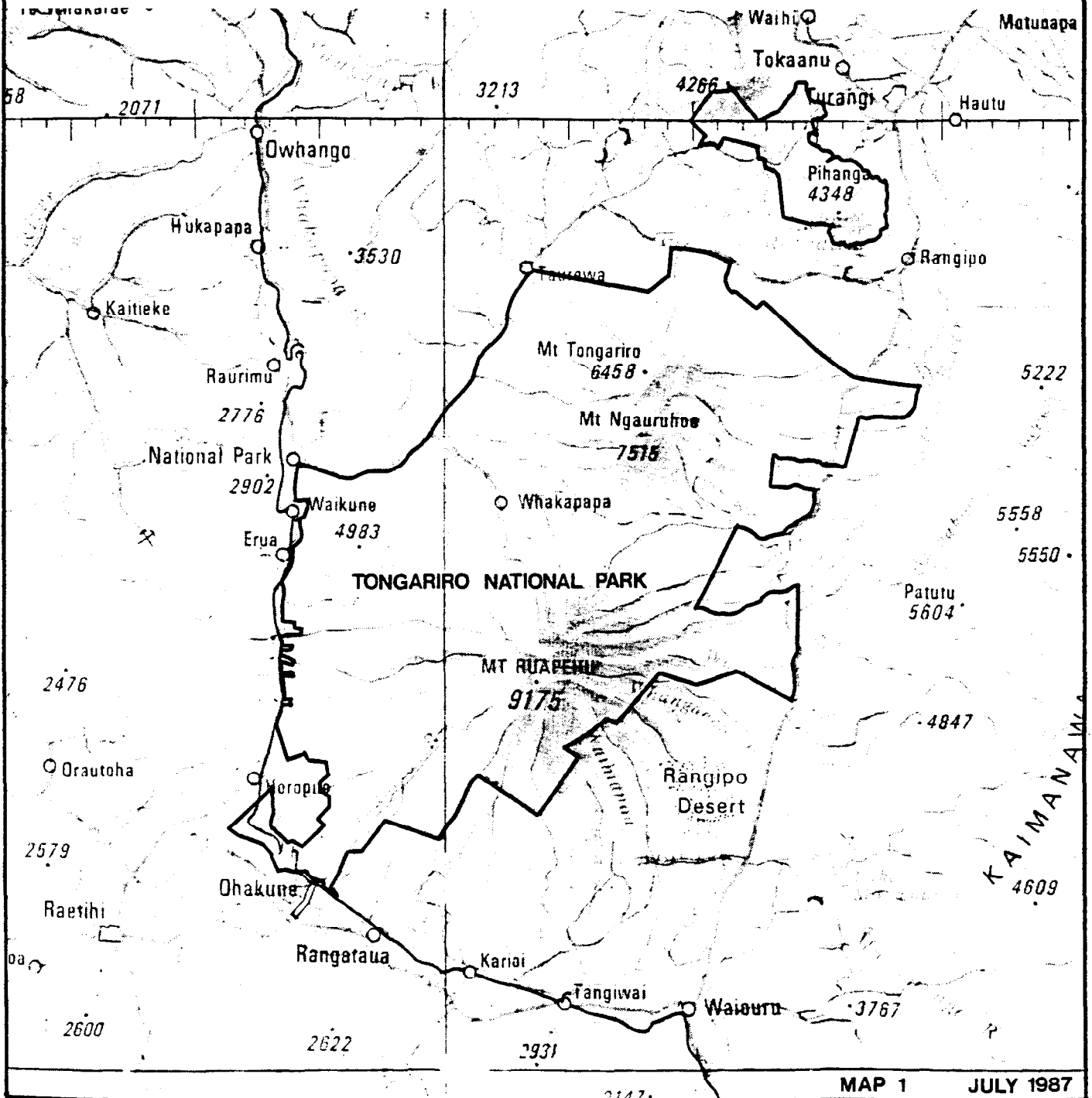
(iii) Superlative natural phenomena and natural beauty. The main volcanic peaks are outstanding scenic features of the island.

b) Cultural property

Criteria for cultural property are being assessed by ICOMOS.

# TONGARIRO NATIONAL PARK MANAGEMENT PLAN

## 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 Neozelandia 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 occurring 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.

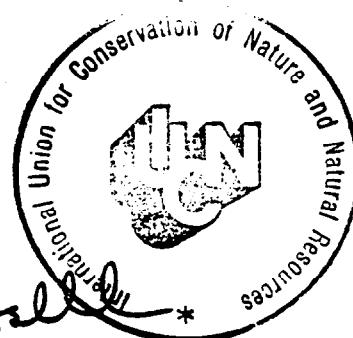
During a field mission to the area in August 1987 by several members of CNPPA, strong concern was expressed on two aspects of management of the area that relate to conditions of integrity:

- 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; Debreceeny, 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

Infobase produced by WCMC, January 1992

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; Debreceeny, 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; Debreceeny, 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. scoparium, 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 novaezealandiae and Poa colensoi. 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

Infobase produced by WCMC, January 1992

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 Oryctolagus 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 (Debreceeny, 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 visitors, 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; Debreceeny, 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

Infobase produced by WCMC, January 1992

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 Debreceeny, (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 processes 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 and natural processes 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 preservation 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 opportunities 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 of 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 Ruapehu. 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; Debreceeny, 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).

Infobase produced by WCMC, January 1992

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

#### REFERENCES

- Atkinson, I.A.E. (1981). Vegetation map of Tongariro National Park, North Island, New Zealand. Scale 1:50,000. Wellington, New Zealand  
Department of Scientific and Industrial Research. Government Printer.  
27 pp.
- Cockayne, L. (1908) Report on a botanical survey of the Tongariro National Park. In: Department of Lands Botanical Reports. Wellington. New Zealand. (Unseen)
- Debreceny, P. (Ed.). (1981). The restless land: the story of Tongariro National Park. Tongariro National Park Board. Wellington. 112 pp.
- Department of Lands and Survey (1986). Tongariro National Park. World Heritage Nomination. Department of Lands & Survey, Wellington, New Zealand. 22 pp.
- DoC (1990a). Tongariro National Park management plan. Volume One. Objectives and policies. Department of Conservation, Turangi, New Zealand. 126 pp.
- DoC (1990b). Tongariro National Park management plan. Volume Two. Skifield management. Department of Conservation, Turangi, New Zealand. 55 pp.
- DoC (1990c). Tongariro National Park management plan. Volume Three. Whakapapa Village. Department of Conservation, Turangi, New Zealand. 31 pp.
- Gabites, I. (1986). Roots of fire: a guide to the plant ecology of Tongariro National Park. Tongariro Natural History Society, Wellington, New Zealand. 112 pp
- Johnson G.W. (1976). Tongariro National Park. Bascands Limited, Christchurch, New Zealand. 32 pp.
- Tongariro National Park Board (1979). Tongariro National Park: management plan. 96 pp.
- Turnbull, L.H. (1979). Bibliography for Tongariro National Park. Department of Lands and Survey. Wellington, New Zealand. (Unseen).
- Williams, K. (1985). Volcanoes of the south wind. A field guide to the volcanoes and landscape of the Tongariro National Park. Tongariro

Natural History Society, Wellington. 128 pp.

DATE April 1987, revised March 1989, October 1990

DOCUMENT 0206W

Infobase produced by WCMC, January 1992

**Identification**

<u>Nomination</u>	Tongariro National Park
<u>Location</u>	Tongariro and Wanganui Regions, North Island
<u>State Party</u>	New Zealand (Aotearoa)
<u>Date</u>	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 (Ngatoroirangi) 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:

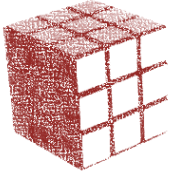
- Criterion vi The mountains that lie at the heart of the Tongariro National Park are of great cultural and religious significance to the Maori people and are potent symbols of the fundamental spiritual connections between this human community and its natural environment.

ICOMOS, October 1993



## **Appendix 7**

Memorandum from Ian Dickson to Dave Mazey regarding Exceptional Circumstances, 17 February 2015;  
Report on Ski Area Business Viability and Resilience, Ian Dickson, 27 May 2015



## Memorandum

To: Dave Mazey  
Copies: [copies to]  
From: Ian Dickson  
Date: 17 February 2015  
Document ref:  
Subject: Exceptional Circumstances

---

### 1. Introduction

You have asked me to prepare some notes on the “exceptional circumstances” that justify RAL being granted a long licence term than 30 years.

Under the Conservation Act 1987 (the Act):-

#### **17 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.

and

(3) An easement may be granted for a term not exceeding 30 years, but—

(a) in exceptional circumstances, the Minister may grant a term not exceeding 60 years:

These words are repeated in the management strategy covering the Tongariro national Park<sup>1</sup>.

It is a function of the Department of Conservation ( DoC) under the Act:-

#### **6 Functions of Department**

The functions of the Department are to administer this Act ..., and, subject to this Act and those enactments and to the directions (if any) of the Minister, —

(a) to manage for conservation purposes, all land, and all other natural and historic resources, for the time being held under this Act, and all other land and natural and historic resources whose owner agrees with the Minister that they should be managed by the Department:

and

(e) to the extent that the use of any natural or historic resource for recreation or tourism is not inconsistent with its conservation, to foster the use of natural and historic resources for recreation, and to allow their use for tourism:

### 2. Exceptional Circumstances Definition and Meaning

“Exceptional Circumstances” is a legal phrase. It is not a defined term in the Act. The following definitions are relevant:

---

<sup>1</sup> See also Tongariro/Taupo Conservation Management Strategy 2002 – 2012 [www.doc.govt.nz/documents/about-doc/role/policies-and-plans/011-tongariro-taupo-cms-concessions.pdf](http://www.doc.govt.nz/documents/about-doc/role/policies-and-plans/011-tongariro-taupo-cms-concessions.pdf)

- “Exceptional” to be uncommon, singular, strange, unnatural, aberrant, anomalous, irregular or much above the average. The antonym is average, ordinary, run-of the mill.
- “Circumstances” means a fact or condition connected with or relevant to an event or action<sup>2</sup>.

Exceptional circumstances are the conditions required to grant additional powers to a government or so as to alleviate, or mitigate, unforeseen or unconventional hardship. DoC does not appear to have a policy outlining criteria for determining exceptional circumstances. Instead the Minister considers applications for exceptional circumstances, on a case-by-case basis. It would be helpful, if when advising the Minister, DoC had criteria help assess whether a circumstance was exceptional circumstances. Based on the ordinary use of the words, the following five criteria flow naturally:

1. **Causation**, whether the circumstance was proximately caused by the events being assessed.
2. **Control**, the circumstances must be beyond the reasonable control of the party impacted.
3. **Foreseeability**, an assessment of whether the circumstances were able to be reasonably predicted and/or planned for.
4. Frequency and likelihood of **reoccurrence** – an assessment of how unusual the events are.
5. **Purpose** of the Act, whether a determination that circumstances were exceptional is consistent with the purpose of the Act.

The legislation uses the term “Exceptional Circumstances” and not “Most Exceptional Circumstances” or “Highly Exceptional Circumstances”. This suggests the framers of the law had in mind something abnormal (i.e., deviating from what is normal or usual), but not necessarily rare in a statistical sense<sup>3</sup>. In this context it is reasonable to interpret the legal words to include events which are probabilistically rare.

Probabilistically rare events relate to circumstances where individually low occurrences (e.g., a tyre blowout under normal operating conditions) but over a large number of units (aggregate daily vehicle kilometres driven) there will be a noticeable number of blowouts<sup>4</sup>.

Having identified the relevant criteria and an applicable standard, we now develop the matters that are value drivers for RAL’s business that may be potentially exceptional.

### 3. Value Drivers for RAL’s Business

RAL operates in an external environment that includes a number of matters that can be regarded as non-standard from a commercial perspective. In the following section there value drivers will be assess against the criteria for being exceptional developed above. The matters and their attendant circumstances are outlined as follows:

- Non-standard philanthropic purpose
  - RAL is an amateur sports promoter. Its purpose is to provide recreational facilities he public visiting the ski area.
  - RAL has no ability to distribute profits or reward holders for "philanthropic" shares.
  - RAL has no access to conventional capital markets. Limited ability to borrow.

---

<sup>2</sup> “Attendant circumstance” is a legal concept which Black’s Law Dictionary defines as the “facts surrounding an event”.

<sup>3</sup> Rare events are usually those with probabilities of less than 0.02 percent (1/50). Two kinds of rare events are understood:

- Probabilistically rare events, have a small probability of occurring per unit time.
- Statistically rare events, have a small probability of occurring over a whole sample space.

Probabilistically rare events relate to circumstances where individually low occurrences (e.g., a tyre blowout under normal operating conditions) but over a large number of units (aggregate daily vehicle kilometres driven) there will be a number of blowouts. Statistically rare events might be nuclear reactor meltdown of which there have been so few that despite a few thousand reactor-years of experience, no reasonable inferences can be drawn about the likelihood of meltdown.

<sup>4</sup> Statistically rare events might be nuclear reactor meltdown of which there have been so few that despite a few thousand reactor-years of experience, no reasonable inferences can be drawn about the likelihood of meltdown.

- Cannot capture the visitor attraction externality  
RAL cannot capture most of the expenditure by visitors that are motivated to come to Tongariro National Park by its services offerings. Travel, accommodation, (off mountain) ski hire, hospitality, retail etc. are all associated costs that are not part of RAL's income stream.  
RAL is therefore abnormal compared with ski destination resort businesses.
- Structurally high costs.  
RAL provides services at cost that might not be acceptable to a for-profit business:
  1. Location on an active volcano (monitoring, insurance).
  2. Location in a National Park (inability to do earth works, operating flexibility, snow grooming).
  3. Climate related (de-icing, snow grooming).
  4. Servicing weekend/school holiday peaks with low mid-week patronage.
  5. Electricity lines charges.
- Alpine weather  
Variably climate affects timing of snow fall and cover year to year.  
Dates for school holidays very important.  
Bad weather brings snow but closed days.  
Weather cycles affecting snowfall and open/closed days may last for years.
- Active volcanic hydrological system  
Some of the most catastrophic lahars and floods have resulted from volcanoes such as Ruapehu that are capped with a mantle of snow and ice. Even minor eruptions can be exacerbated when volcanic 'products' interact with snow and ice<sup>5</sup>.  
Volcanic events have the potential to close skifield operation for the remainder of the season and to last more than one season.  
Adds to abnormal business interruption risk.
- Concatenations  
Weather systems and volcanic hydrological systems are independent  
Independent events means the occurrence of one does not affect the probability of an occurrence of the other.  
Amplifies business interruption risk.
- Physical asset specificity  
RAL's physical assets demonstrate the following dimensions of asset specificity:
  - Site specificity, e.g. available at a certain location and movable only at great cost.
  - Physical asset specificity, e.g. a specialised machine designed for a single purpose.
  - Human asset specificity, i.e., highly specialized human skills, arising in a learning by doing fashion
  - Dedicated assets, i.e. a discrete investment in plant that cannot readily be put to work for other purposes.
  - Time specificity, an asset is time specific if its value is highly dependent on availability within a specified, relatively limited period of time, e.g., winter.
- Distance from population centres  
Limits market size due to time and cost of travel and accommodation.  
Factor in weekend/school holiday peaks and very low mid-week patronage.

---

<sup>5</sup> Volcanic events can affect snow and ice mantles in five ways, as follows:

- Scouring and melting by flowing pyroclastic debris or hot gas blasts and pyroclastic debris.
- Surface melting by lava flows.
- Basal melting of glacial ice or snow by sub-glacial eruptions or geothermal activity.
- Ejection of water by eruptions below the Crater Lake.
- Tephra fall.

- **Intensifying competition** Intermediate/advanced skiers can increasingly access South Island ski areas and Japan, Canada, USA. Low airfares, better snow, more modern facilities. Beginner/family markets competes with other winter recreation including Pacific Island tourism.
- **Market developments** An expensive sport. Patronage has declined ~25% since the 1990s in line with global trends. NZ skier population base very small ~300,000. 36% of skier days are foreigners, almost none on Ruapehu. Market is mature. RAL already capturing large share of potential skier market. Limited opportunities to grow patronage.
- **Regulatory & stakeholder issues** Rising costs associated with providing for safety of staff and public. Iwi expectations of less intensive/extensive use. Public expectations of improving facilities and wider range of on-mountain activities, e.g., mountain biking.

In the following section we analyse the value drivers in relation to the criteria developed in section for determining exceptional circumstances.

#### 4. Synthesis of Exceptional Circumstances

Value Drivers for RAL's Business	Causation	No Control	Foreseeability		Reoccurrence	Purpose of the Act	Determination
	Are proximately caused by the matters being assessed?	Beyond the reasonable control of the party impacted?	Able to be reasonably predicted?	Able to be reasonably planned for?	How unusual the matters are?	A determination is consistent with the purpose of the Act?	Is / is not an exceptional circumstance?
RAL's non-standard philanthropic purpose	No	Yes/No	Predictable	Plannable	Unusual	No	Not exceptional
Cannot capture the visitor attraction externality	Yes	Yes	Predictable	Plannable	Fairly unusual	Yes, tourism promotion	Exceptional
Structurally high costs	Yes	Yes	Predictable	Plannable	Fairly unusual	Possibly	Exceptional
Alpine weather	Yes	Yes	Not predictable	Not plannable	Fairly unusual	Yes, tourism promotion	Highly exceptional
Active volcanic hydrological system	Yes	Yes	Not predictable	Not plannable	Very unusual	Yes, tourism promotion	Very highly exceptional
Concatenations	Yes	Yes	Not predictable	Not plannable	Very unusual	Yes, tourism promotion	Very highly exceptional
Physical asset specificity	Yes	Yes	Predictable	Plannable	Quite unusual	Yes, tourism promotion	Exceptional
Distance from population centres	Yes	Yes	Predictable	Plannable	Not unusual	Yes, tourism promotion	Not exceptional
Intensifying competition	No	Yes	Predictable	Plannable	Not unusual	No	Not exceptional
Market developments	No	Yes	Predictable	Plannable	Not unusual	No	Not exceptional
Regulatory & stakeholder issues	Yes & No	Yes	Predictable	Plannable	Not unusual	In respect of cultural dimension	Not exceptional

The above synthesis of RAL's value drivers and exceptional circumstance criteria identifies that the following matters constitute exceptional circumstances that could be considered by the Minister as grounds for granting licences for a term longer than 30 years:

- Very highly exceptional (actively volcanic hydrothermal system, concatenation of weather and volcanic hydrothermal system).
- Highly exceptionable (alpine weather).
- Exceptionable (unable to capture visitor externality, structurally high costs, and physical asset specificity).

## 5. Optimal Licence Term

In this section we address the optimal licence term. Two theoretical streams are relevant to the design and analysis of contracts; agency theory and transaction costs economics:

- According to agency theory, the principal reason for entering into a contract, or for extending an existing contract, are risk transfer and incentive alignment. Thus contract length should be related to the level of risk inherent in the exchange.
- In transaction cost economics, contracts are viewed as mechanisms to constrain parties' wasteful attempts to expropriate available quasi-rents<sup>6</sup>. Thus, according to transaction cost economics, contract design, including length, should match the characteristics of the underlying transaction, most notably the level of the asset specificity.

According to both schools of thought, the gains from trade are maximised when the contract design is in line with the underlying characteristics of the trade. A misalignment results in inefficiency, at best, and discourages trade altogether, at worst. To achieve efficiency in the transaction, the parties must choose a contract length that matches the level of asset specificity. Assets that are costly to redeploy are specific<sup>7</sup>. Once specific assets are deployed a significant part of their value is "sunk"<sup>8</sup>.

Sunk cost is relevant to the question of optimal contract length because parties to transactions that involve material sunk costs are inclined to act opportunistically in an attempt to expropriate the available economic rents rather than devising genuinely value-adding arrangements (generally by encouraging flexibility and innovation that have the effect of increasing the rents available to the asset owner<sup>9</sup>).

The general conclusion is that:

- More complex and uncertain environments reduce the desirability to contract, and by extension, to lengthen the contract; and on the other hand
- The presence of material sunk costs resulting from specific assets increases the desire to contract, and by extension to lengthen the contract.

Empirical evidence on contract length generally supports the relationships between complexity and uncertainty on the one hand, and asset specificity and sunk costs on the other hand:

---

<sup>6</sup> Quasi-rent is a term in economics, for the income earned, in excess of post-investment opportunity cost, by a sunk cost investment. In other words, the difference between the income in the current use of the factor and the absolute minimum required to draw a factor into a particular use (from no use at all, or from the next best use).

<sup>7</sup> The opportunity cost of redeploying the asset generates a quasi-rent which corresponds to the difference between the current use value of the asset and the value in its next best alternative use. Such quasi rents may be large, as is observed in the difference between the going-concern value of business assets and liquidation value.

<sup>8</sup> Sunk costs are retrospective (past) costs that have already been incurred and cannot be recovered. In microeconomic theory, only prospective costs are relevant to an investment decision and rational economic actors do not let sunk costs influence decisions. Evidence from behavioural economics suggests this theory fails to explain real-world behaviour. It is observed that sunk costs greatly affect decisions, because humans are inherently loss-averse and thus act irrationally when making economic decisions.

<sup>9</sup> Relational contracting is a contract whose effect is based upon a relationship of trust between the parties. The explicit terms of the contract are just an outline as there are implicit terms and understandings which determine the behaviour of the parties. Relational contract theory is characterised by a view of contracts as relations rather than as discrete transactions. The public transport operating model (PTOM) deployed by the New Zealand Transport Agency is an example of relational contracting in action.

- Joskow (1987)<sup>10</sup> shows that longer distances between coal mines and fewer transport alternatives both of which affect profit certainty are associated with longer contracts.
- Crocker and Manson (1988)<sup>11</sup> show a similar association in an analysis of natural gas transportation contracts.
- Malatesta (2007)<sup>12</sup> finds in relation to cable television access-rights (re)franchise contracts that:
  - Franchise length is positively related to physical investments in cable plants, which are site-specific and dedicated to supplying services under contract.
  - Contract length is shorter in jurisdictions with higher subscriber densities and higher median household incomes, suggesting that these market conditions attenuate the costs associated with long-term contracts.

An important goal in contract design is to find the appropriate trade-off between incentives for unobservable investments and flexibility related to changing market circumstances. Attempts at achieving this goal are reflected in the contract length and other provisions, particularly those related to asset specificity and uncertainty. The goals of the contract management of conservation assets include encouraging innovation and greater cost efficiency, which have at their heart unobservable investments (in the absence of a “eureka” discovery). Longer contracts give the operator more time to experiment with small innovations that over time add up to productivity improvements.

## 6. Conclusion

Under the Conservation Act 1987 the Minister may extend the term of a licence or lease for as much as 60 years if she is satisfied that there are exceptional circumstances. In the absence of a definition and departmental policy on exceptional circumstances, this paper has developed five criteria that naturally encompass exceptional circumstances. Using those criteria, the paper identifies seven matters relating to RAL’s business that are exceptional. Thus ample grounds exist provided for the Minister to exercise her discretion under the Act.

The second question is then next what term of licence/lease should be granted and who should this be determined. The literature on contracting identifies two principal matters

- More complex and uncertain operating environment reduce the desirability to contract, and by extension, to lengthen the contract; and on the other hand
- The presence of material sunk costs resulting from specific assets increases the desire to contract, and by extension to lengthen the contract.

RAL’s physical assets demonstrate the five dimensions of asset specificity (site specificity, specialised machine designed for a single purpose, highly specialized human skills, arising in a learning by doing fashion, dedicated plant that cannot readily be put to work for other purposes, and time specificity dependent on availability within a specified, relatively limited period of time).

Finally we note that because winter operation of the alpine ski lift business is typically for four months of the year, a 30-year contract only represents 10 revenue-earning years and a 60-year contract is 20 revenue-earning years.

---

Document ref: exceptional circumstances feb 2015.docx

---

<sup>10</sup> Joskow, P.L. (1987). Contract duration and relationship-specific investments: Empirical evidence from coal markets. *The American economic review*, 77(1), 168-185.

<sup>11</sup> Crocker, K.J., & Masten, S.E. (1988). Mitigating contractual hazards: Unilateral options and contract length. *Rand Journal of Economics*, 19, 327-343.

<sup>12</sup> Malatesta, D (2007) The Determinants of Contract Duration in Cable Television Franchising in New Jersey, a Paper prepared for presentation at the 9th Public Management Research Conference, University of Arizona, Tucson, USA, October 2007.

## Appendix A      Statutory Scheme

The power of the Minister of Conservation to grant a concession in respect of a national park is set out in section 49(1) of the National Parks Act 1980. Under section 49(2), the Minister must be satisfied, before granting a concession, that it will not permanently affect the rights of the public in respect of the park and is not inconsistent with section 4.8.

Section 43 of the National Parks Act requires the Department of Conservation to administer national parks in accordance with *“(a) any statements of general policy adopted under section 44; (aa) any conservation management strategy for the time being in force in respect of a park; and (b) any management plan for the time being in force in respect of a park”*. Section 45(1) requires a management plan to be prepared for each national park.

The specific requirements for concessions in respect of national parks are set out in Part 3B of the Conservation Act 1987 which, by virtue of section 49(1) of the National Parks Act, *“apply as if references in that Part to a conservation area were references to a park and with any other necessary modifications”*.

Under section 17W(1) of the Conservation Act, *“a concession shall not be granted [in respect of a national park] unless the concession and its granting is consistent with the [conservation management] strategy or plan”* for the park.

Section 17T(2) of the Conservation Act is also relevant. It states: *“If the Minister is satisfied that the complete application [for a concession] ... is inconsistent with ... any relevant ... 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 had declined the application and the reasons for declining the application.”*

---