Concession Application
Form 3b – Private/commercial facility/structures

The Department recommends that you contact the Department of Conservation Office closest to where the activity is proposed to discuss the application prior to completing the application forms. Please provide all information requested in as much detail as possible. Applicants will be advised if further information is required before this application can be processed by the Department.

This form is to be used when the proposed activity is the building or use of any private or commercial facility or structure on public conservation land managed by the Department of Conservation. Examples may include lease of land to erect an information centre; authorisation to erect a weather station; or construct or lease a private/commercial campground or lodge. This form is to be completed in conjunction with either Applicant Information Form 1a (longer term concession) or Applicant Information Form 1b (one-off concession) as appropriate.

Please complete this application form, attach Form 1a or Form 1b, and any other applicable forms and information and send to Department of Conservation Office closest to where the activity is proposed. The Department will process the application and issue a concession if it is satisfied that the application meets all the requirements for granting a concession under the Conservation Act 1987.

If you require extra space for answering please attach and label according to the relevant section.

A. Description of Activity

Please describe the proposed activity in detail – where the site is located, what you intend to use the building for, whether you intend to make any changes to the infrastructure.

Please include the name and status of the public conservation land, the size of the area you are applying for and why this area has been chosen.

If necessary, attach further information including a map, a detailed site plan and drawings of proposal and label Attachment 3b:A.

Introduction

Ohau Snow Holdings Ltd is seeking a variation to its concession CA/272/SKI to install a double chair (to be named the "Chairway") from the Top of Sun Run to beside 2nd Peak.

The concept of a second chair started being discussed with the Twizel Area in 2012 and staff were involved in the early planning for this lift. A DOC file note dated the 27 August 2013 records the discussion and consultation that took place prior to this date. (see Attachment 3b:A)

The chairlift and the installation plan

The chairlift is a second hand double Doppelmayr chair purchased from Cardrona (Whitestar chair). It is being refurbished, strengthened and certified to comply with modern standards prior to installation. There are 9 towers to be installed of various heights to fit the terrain. The towers will be painted in the standard tower green used on the other lifts. The underlining principle is that the chair lift and line are to be the only visual or physical impact on the Mt Sutton and the 2nd peak slopes.

Excavation of Foundations and Cable Trench

The digger's first job will be to build a dead man into the ground at the top of the proposed chair and set up a cable winch so that the digger can work its way down the lift line digging the tower foundations and cable trench.

Formwork, Shutters, Reinforcing and Concrete

Helicopters will be used to fly in the formwork, shutters, reinforcing and ready-mix concrete. The digger on its next rounds will backfill and assist the helicopter to place towers on their foundations. Following burial of the cable and completion of each tower foundation the disturbed scree and rock will be landscaped to match the surrounding terrain.

Drive Station and Top Shack

The materials for the top station building will be flown in and the design will be similar to the Top Shack of the main double chair lift otherwise known as the Couch. (see photo 3b:A). The bottom drive station building is a steel framed structure and part of the drive terminal. Both the drive station and the top shack will be roofed in corrugated Karaka Green colour steel. The walls will be in high strength ply and baton and built to withstand 240km winds!

A trench from the PS100 snow making pump station, along an existing track to the Sun Run will carry mains and low voltage power cable, snow making water, an air pipe and communication cable.

Access Track

The proposed access track route is to continue from the skier's right trail from the top of the existing double chair and to climb the north facing slope of Back Bowl through to its western saddle. From there it will stay on the western edge of the ridge and 2nd Peak to the chair offload.

The access track will have a build function and an operation function. The build function will be to provide a track for the digger to access the chair return station area on the top flat beside 2nd Peak.

The ongoing operational function will be to provide access for patrol and lift operators to access the return station to observe chairs lift line, that the cable is secure and free from ice build-up. The track is in an avalanche path (Back Bowl), which runs frequently after storm cycles and will need to be controlled before the initial access up the track can be secured after a storm cycle. This control will be done using the current avalanche control route, an established safe route to the ridge above the existing chair and around the ridge to the top of the Back Bowl path.

The new track will have a width of 3-4 metres and a gradient of 1:5. The terrain across which it will be constructed is mainly rock and scree. The trail will be constructed and landscaped so as to avoid any sharp and obvious lines across the slope and obvious spill over. There are only small areas of vegetation amongst the scree and rock and the route for the track will be designed to minimise any disturbance to any plant communities. Where plant communities have to be removed it will not be feasible to uplift them and replant them as the nature of the terrain and plant communities means survival of such transplanted vegetation is close to nil. The overall visual effects of the trail are considered to be minor.

The following information is attached as part of this application (see 3b:A)

1) Doppelmayr profile of the lift showing the locations of the drive station, return station and towers. It also contains specifications including the slope distance of 630 meters.
2) Topographical plan of the proposed chair, produced by Southern Land
3) A trail map showing the chairlift and the trails overlaid on a photograph of Mt Sutton / Second Peak north facing slopes.
4) Photo of the chairlift line and surrounding slopes and back bowls.
5) Photo of access track route.
6) Ecological report on the proposed new chairlift in the upper basin, by Neil Simpson.
7) Landscape Assessment report produced by Blakely Wallace Associates. This assesses the visual impact of the chairlift and the access track with relevant photos.

Description of the land

The public conservation land on which this facility is located is part of Ruataniwha Conservation Park, NaPALIS ID 2805048 and is all within the Ohau Snow Holdings licence area. The legal description of the land title is Otago Land District: Section 1 SO 413831.

B. Alternative sites considered

If your application is to **build, extend or add** to any permanent or temporary structures or facilities on public conservation land, please provide the following details:

- Could this structure or facility be reasonably located outside public conservation land? Provide details of other sites/areas considered. NO.
- Could any potential adverse effects be significantly less (and/or different) in another conservation area or another part of the conservation area to which the application relates? Give details/reasons. NO.

No alternative sites were considered as the proposed site is the logical and only feasible site for a second lift facility with significant gains in terrain access within the boundaries of the OSHL licence area and to the ridgeline. Currently the terrain this lift will give access to is accessed on foot only by way of a walk to the ridge above the existing chair and then along the ridge. The lift will provide safe access to this terrain.

C. Larger area

Is the size of the area you are applying for **larger** than the structure/facility **~~YES~~ / NO**

If **yes**, please detail the size difference in the box below, and answer the following 3 questions, if **no** please go on to the next section:

The chairlift and the track lie within the OSHL licence area under concession CA/272/SKI.

The chairlift has a small footprint (lease) with a base facility, a top shed and 9 towers. Each tower will have a concrete base but most of this will not be visible above ground. The towers are 500mm in diameter. The topshed will be a small building with an area of approximately 10m^2 which is yet to be designed.

The access track will be 3-4m wide.

Is this necessary for safety or security purposes? **YES / NO**

Is this necessary as an integral part of the activity? **YES / NO**

Is this essential to carrying on the activity? **YES / NO**

If the answer to any of the above is yes, please provide details and attach supporting evidence if necessary and label Attachment 3b:C.

D. Exclusive possession

Do you believe you need **exclusive possession** of the public conservation land on which your structure/building is located, i.e. no one else can use the land during your use of it? ~~**YES**~~ / **NO**

(Exclusive occupation requires a lease which requires public notification of the application)

If **yes**, please answer the following 3 questions, if no please go to the next section:

Is exclusive possession necessary to protect public safety? **YES / NO**

Is exclusive possession necessary to protect physical security of the activity? **YES / NO**

Is exclusive possession necessary for the competent operation of the activity? **YES / NO**

If the answer to any of the above is yes, please provide details and attach supporting evidence if necessary and label Attachment 3b:D.

Exclusive possession is not required.

E. Technical Specifications (for telecommunications sites only) - N/A.

Frequencies on which the equipment is to operate

Power to be used (transmitter output)

Polarisation of the signal

Type of antennae

The likely portion of a 24 hour period that transmitting will occur

Heaviest period of use

F. Term

Please detail the length of the term sought (i.e. number of years or months) and why.

Note: An application for a concession for a period over 10 years must be publicly notified, an application for a concession up to 10 years will not be publicly notified unless the adverse effects of the activity are such that it is required, or if an exclusive interest in the land is required.

14 years. We are suggesting that this concession be granted for 14 years with an expiry date which coincides with the main concession for Ohau Snowfields – 30 April 2032.

G. Environmental Impact Assessment

This section is one of the most important factors that will determine the Department's decision on the application. Please answer in detail.

In column 1 please list all the locations of your proposal. In column 2 list any special features of the environment or the recreation values of that area. Then in column 3 list any effects (positive or adverse) that your activity may have on the values or features in column 2. In column 4 list the ways you intend to mitigate, remedy or avoid any adverse effects noted in column 3. Please add extra information or supporting evidence as necessary and label Attachment 3b:G.

Refer to Steps 1 and 2 in your Guide to Environmental Impact Assessment to help you fill in this section.

Location on public conservation land	**Special feature or value**	**Potential effects of your activity on the feature or value (positive or adverse)**	**Methods to remedy, mitigate or avoid any adverse effects identified**
Ruataniwha Conservation Park. Section 1 SO 413831	Alpine and subalpine plant communities.	Minimal.	Disturbance to plant communities will be minimised by avoiding plant communities wherever possible in the siting of the towers and track. Refer to the Ecological Report for detail on the plant communities. (Simpson, 2012)
Ruataniwha Conservation Park. Section 1 SO 413831	Wildlife	Pipits and falcon.	No known adverse effects.
Ruataniwha Conservation Park. Section 1 SO 413831	Landscape and visual	Limited effect as it is obscured from view from the Lake Ohau Road, the Lodge or the nearby A2O cycle trail. The upper part of the track will be visible from some areas but it will be well integrated into the natural environment.	No significant adverse effects. The effects have been assessed as minor in the Landscape Assessment Report. (Blakely Wallace Associates, 2013)
Ruataniwha Conservation Park. Section 1 SO 413831	Recreation	This facility will increase the recreational use of the Ohau Snow Fields terrain which can be accessed from this lift. It will provide a larger area for visitors to ski and snowboard. It is also likely to increase use of the	No known adverse effects on the environment. None of this area will be groomed or have trails constructed across it.

		slack country surrounding Ohau for ski touring.	
Ruataniwha Conservation Park. Section 1 SO 413831	Rock glaciers	Excavation in this area may occur in areas where ice remnants of rock glaciers may be present. This occurred when the storage ponds for the snow making was being constructed.	No significant adverse effects. If ice is disturbed then the Department will be notified in case there is some scientific interest in recovering some of the ice and recording the details of the find.

H. Other

Is there any further information you wish to supply in support of your application? Please attach if necessary and label Attachment 3b:H.

Department of Conservation
Te Papa Atawbai

Note For File

File No: PAC 12-06-412

Date: 27 August 2013

File Note

On the 26th August 2013 Phil Blakely, Landscape Architect, Mike Neilson, Craig Ovenden (Ohau Snowfields) and myself inspected the proposed access track route for the new lift proposed by Ohau Snowfields. This access track will be used during the construction phase of the new lift to get machinery and gear to the ridge and then for snow cat access for operational purposes in the winter.

The rough line of the proposed access is marked on the attached photo as the "redline". The track will then go up the flat ridge to the top of the proposed lift. This part of the trail will be not seen from the ski area as it will be on top of the ridge or behind it. Phil Blakely will be producing a report on the proposal over the next few weeks. The lift is now not going to proceed this summer but Mike is planning on completing the planning for its construction.

I am of the view that the chosen line and width of the trail at 4-5m will be fine in this environment. The visual impact will be minimal and unlikely to be highly visible from a distance. I cannot see any issues with the proposal and subject to the conditions that Phil may wish to see placed on the construction it should be approved as the most pragmatic and less visual route.

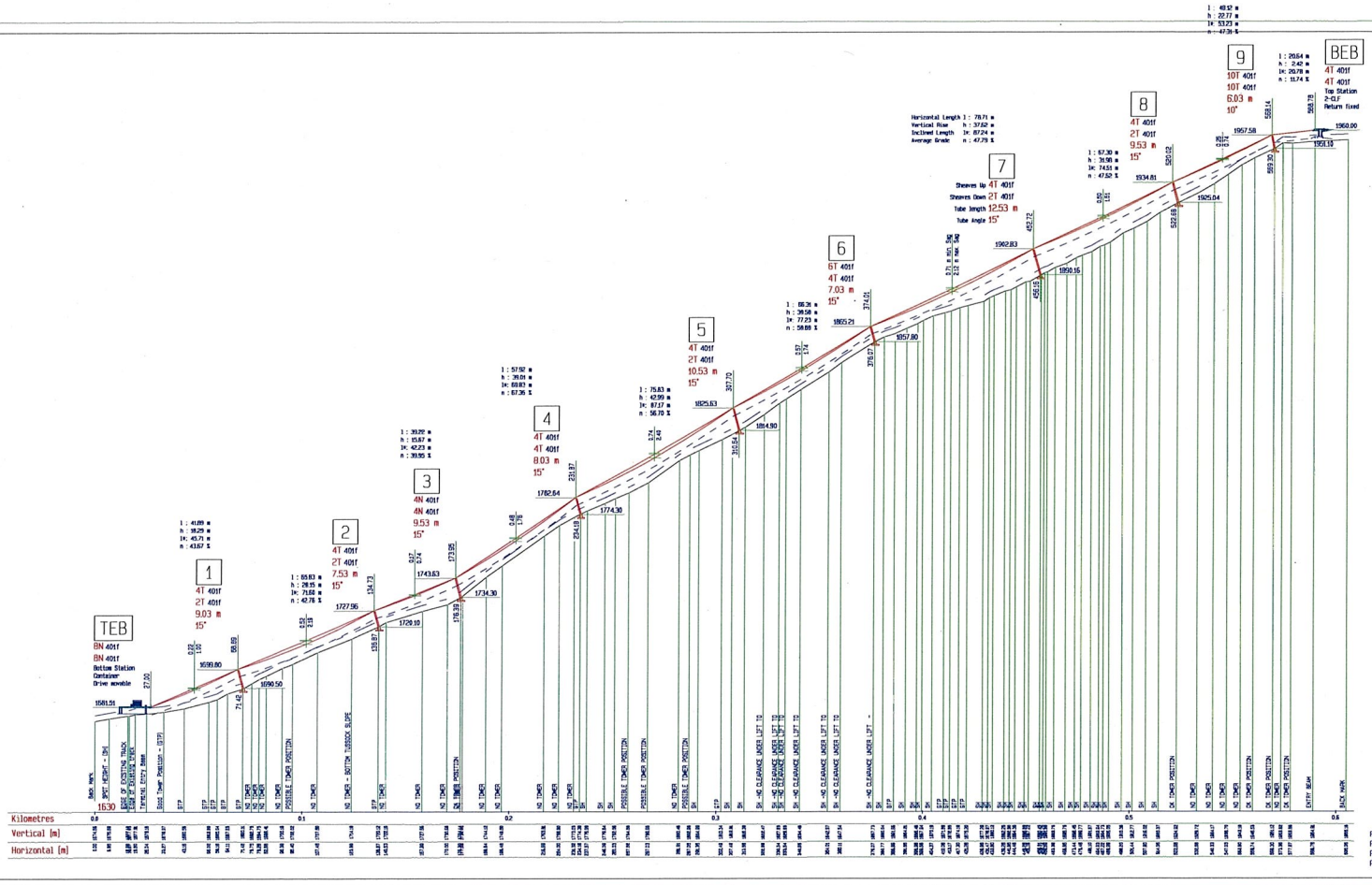
There are 3 elements to the application for this lift construction:

1. Botanical report produced in 2012 by Neil Simpson
2. Plan of the lift line and towers
3. The landscape assessment of the liftline and access track

All 3 will make up the final application that Ohau will provide for approval in due course.

Rob Young
Area Manager
Te Manahuna, Twizel

Canterbury Conservancy
Twizel *Te Manahuna* Area Office, Private Bag, Wairepo Road, Twizel, New Zealand
Telephone 03-435 0802, Fax 03-435 0852



Profile origin:
Profile file: Second_Peak_Chairgel
Ropeway file: Second_Peak_170613_1.clf
Program: Seilba 156.1 CDK1371555828

Profile
2-CLF Second Peak Chair

Customer: Doppelmayr Lifts (NZ) Ltd.
Location: Ohau

Technical Data:

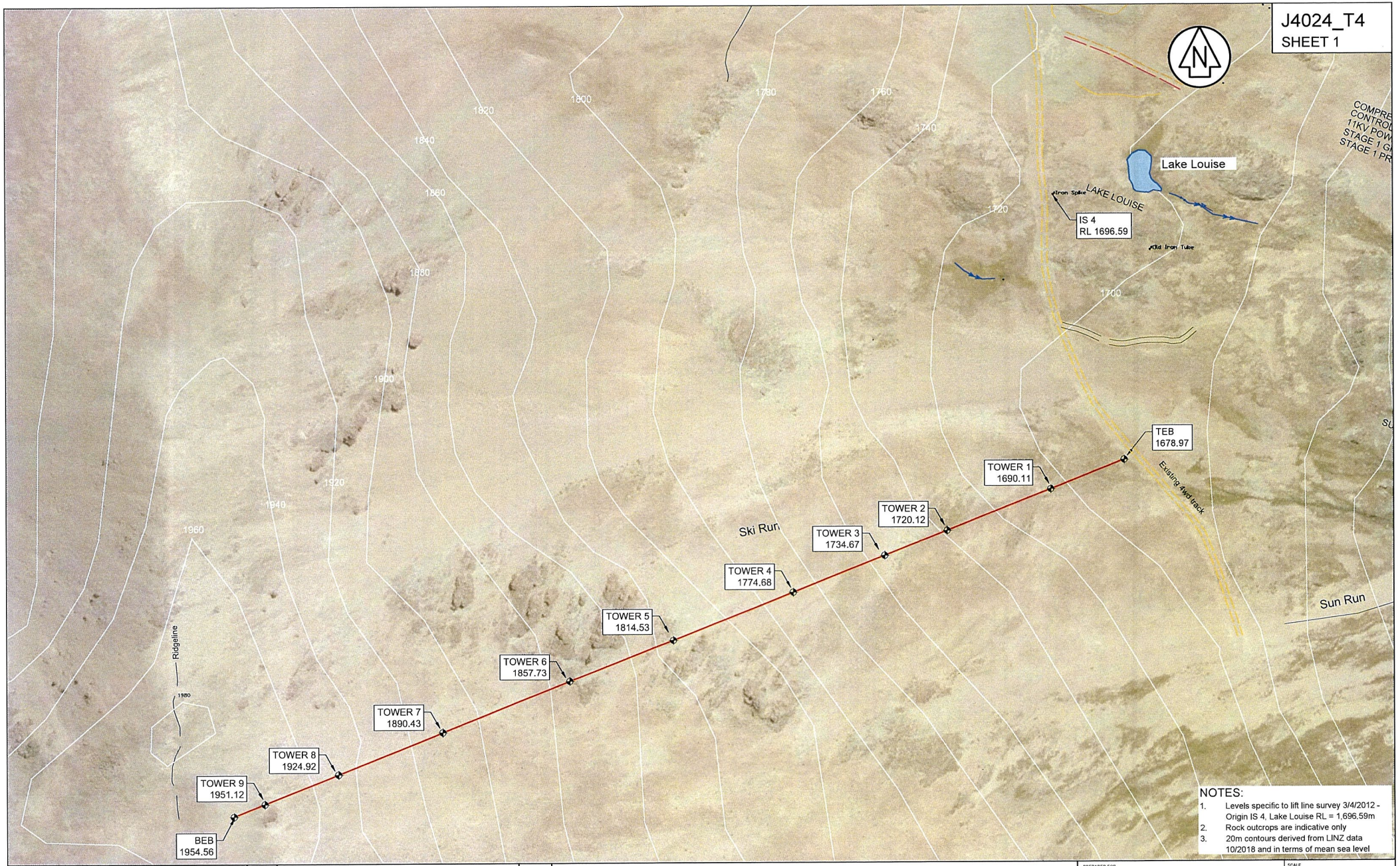
Uphill Side	Right	ø Haul Rope	32 mm
Drive Station	Bottom	Minimum Breaking Strength	614 kN
Tension Station	Bottom	ø Drive Bullwheel	3.10 m
Return Station	Top	ø Return Bullwheel	3.10 m
Horizontal Length	561.78 m	Rope Gauge on Line	3.60 m
Vertical Rise	278.49 m	Drive Output Continuous	104 kW
Average Geade	49.57 %	Drive Output Starting (0.15 m/s²)	131 kW
Max. Rope Inclination	81.16 %	Elevation of Drive Station	1682 m
Inclined Length	629.54 m	Uphill Transportation	100 %
Spliced Rope Length	1288.42 m	Downhill Transportation	15 %

	Initial	Final
Drive Speed	m/s	2.30 m/s
Capacity	pph	1195 pph
Number of Carriers		93
Carrier Spacing	m	13.85 m
Carrier Interval	s	6.02 s
Trip Time	min	4.56 min

Index	Revision	Date	Name
		Drawn 2012-07-11	FN
		Approved	

Doppelmayr
Innova Patent GmbH
Rickenbacherstr. 8-10
A-6960 WOLFURT / AUSTRIA

Scale 1:1000 | Project No. WAA0003229 | Drawing No. | Index



SOUTHERN LAND

SURVEYING | PLANNING | LAND DEVELOPMENT

Level 2 Brownston House, 21 Brownston St, Wanaka. Ph: (03) 443 5577. E-mail: contact@southernland.co.nz. www.southernland.co.nz

CSNZ

REVISION	DESCRIPTION	DATE
A	ORIGINAL ISSUE	3/4/2012
B	ADD CHAIR DESIGN TO PLAN	15/10/18

PLAN OF PROPOSED PEAK CHAIR
OHAU SNOW FIELD

PREPARED FOR
OHAU SNOW HOLDINGS LTD

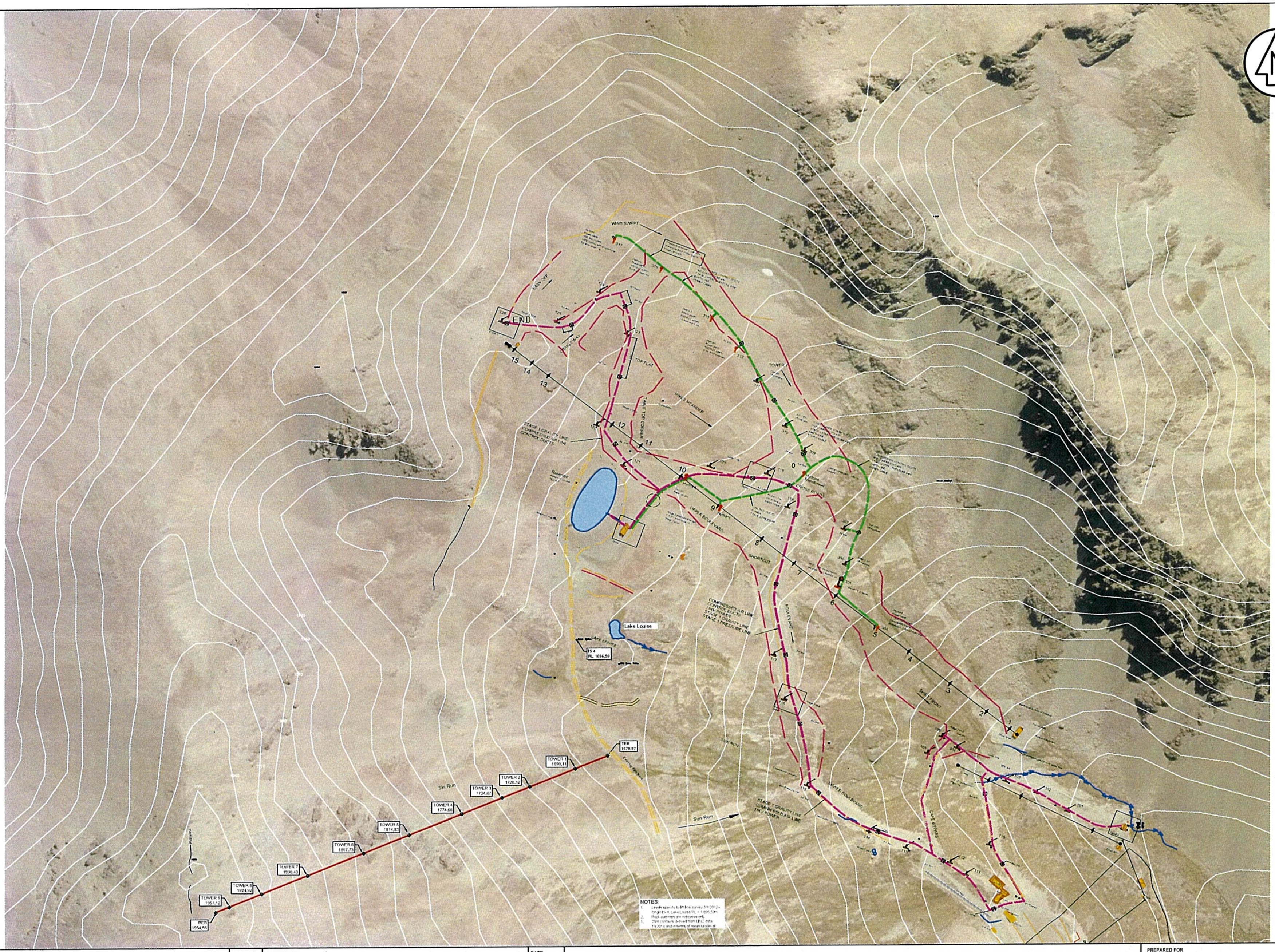
SCALE
1: 2,000 @ A3

DATUM & LEVEL
LINDIS PEAK 2000

SURVEYED	DATE	CHECKED	DATE
TD	25/9/08	TD	12/10/18
DRAWN	DATE	APPROVED	DATE
TD	12/10/18	TD	12/10/18

DRAWING REFERENCE
J4024_T4

REVISION
B



J4024_T4
SHEET 2

REVISION	DESCRIPTION	DATE
A	ORIGINAL ISSUE	15/10/18

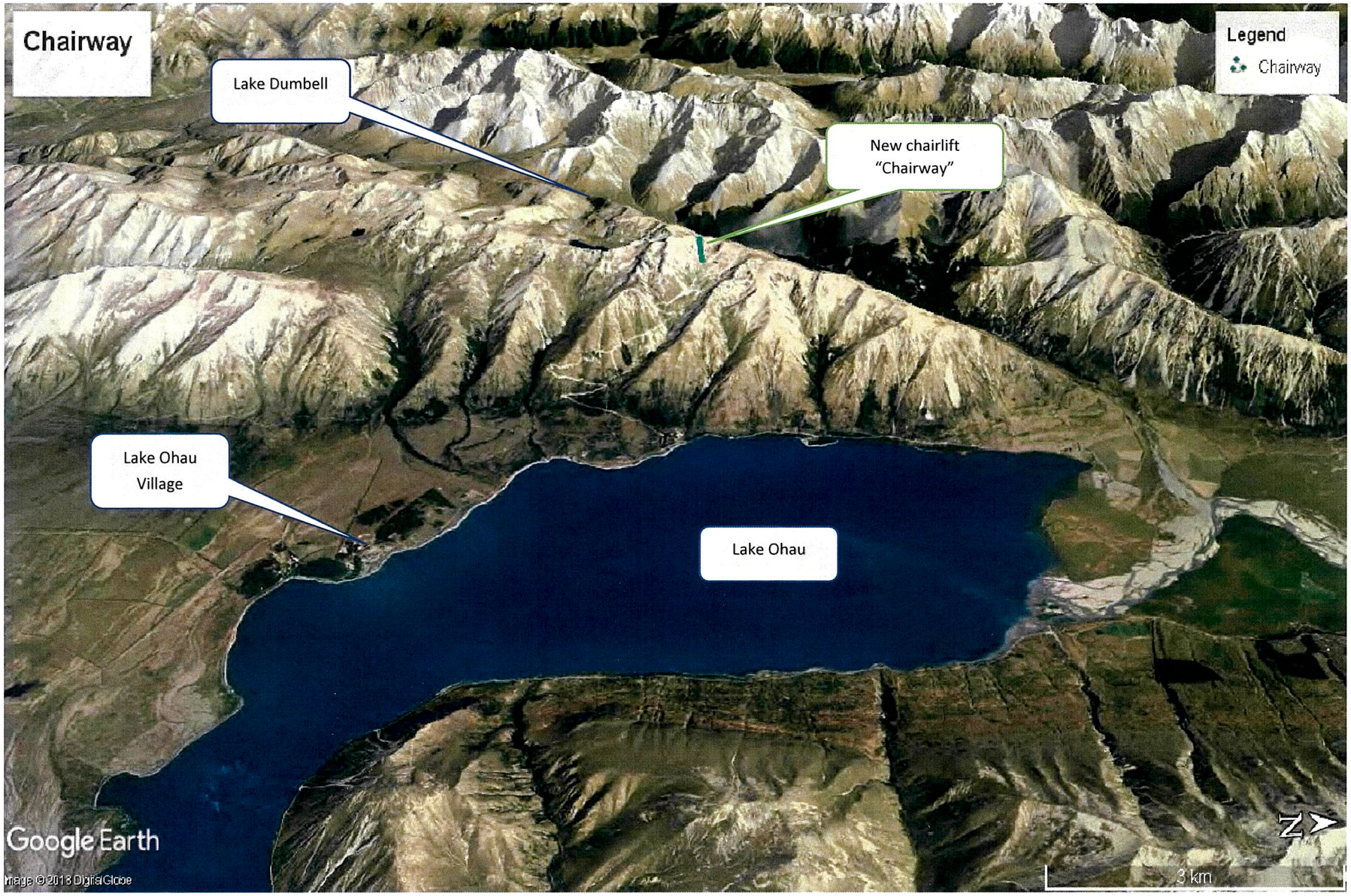
SOUTHERN LAND
SURVEYING | PLANNING | LAND DEVELOPMENT
Level 2 Brownston House, 21 Brownston St., Wanaka. Ph: (03) 443 5577. Email: contact@southernland.co.nz. www.southernland.co.nz

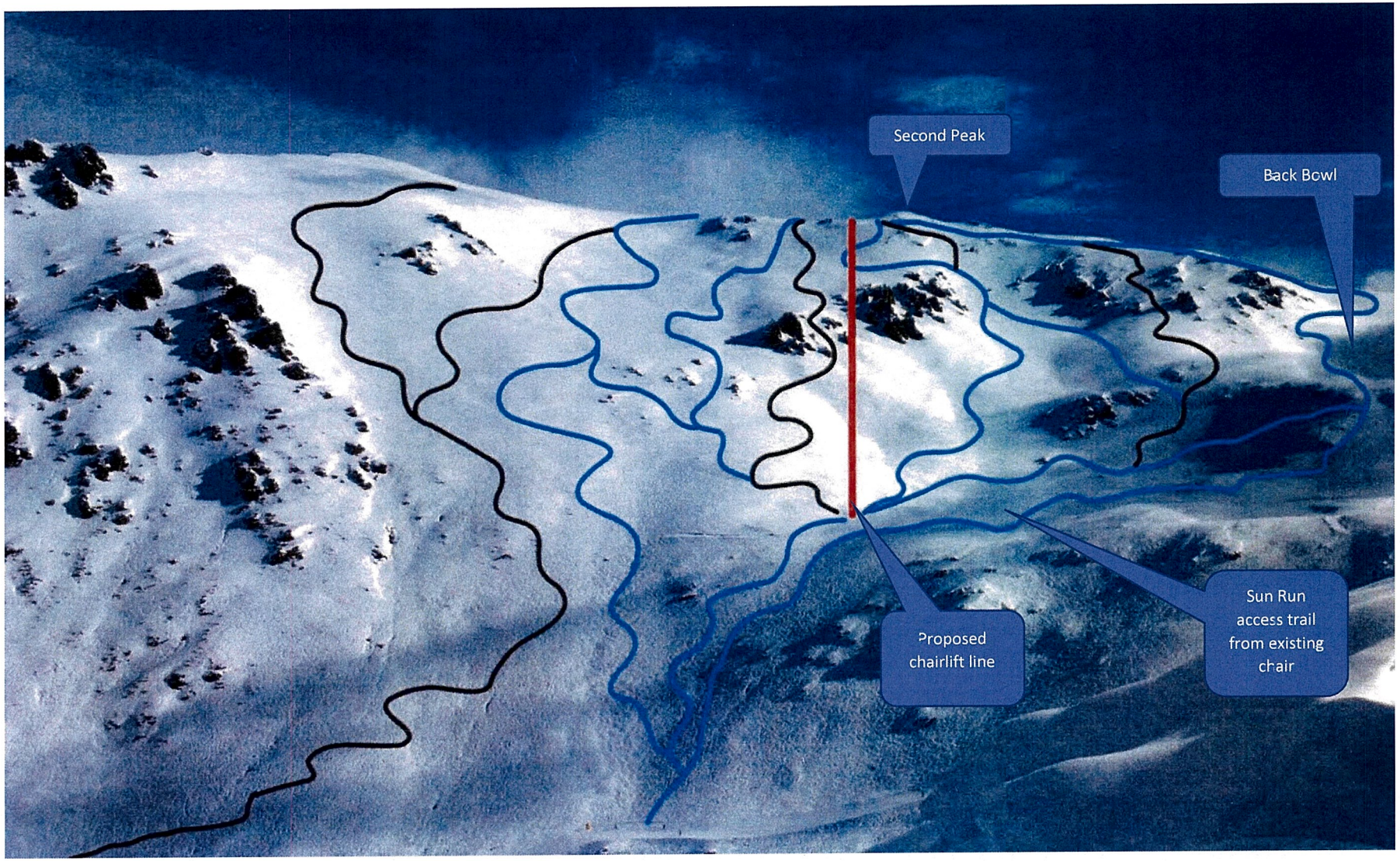
PLAN OF EXISTING & PROPOSED SKI AREA INFRASTRUCTURE
OHAU SNOW FIELDS

PREPARED FOR
OHAU SNOW HOLDINGS LTD

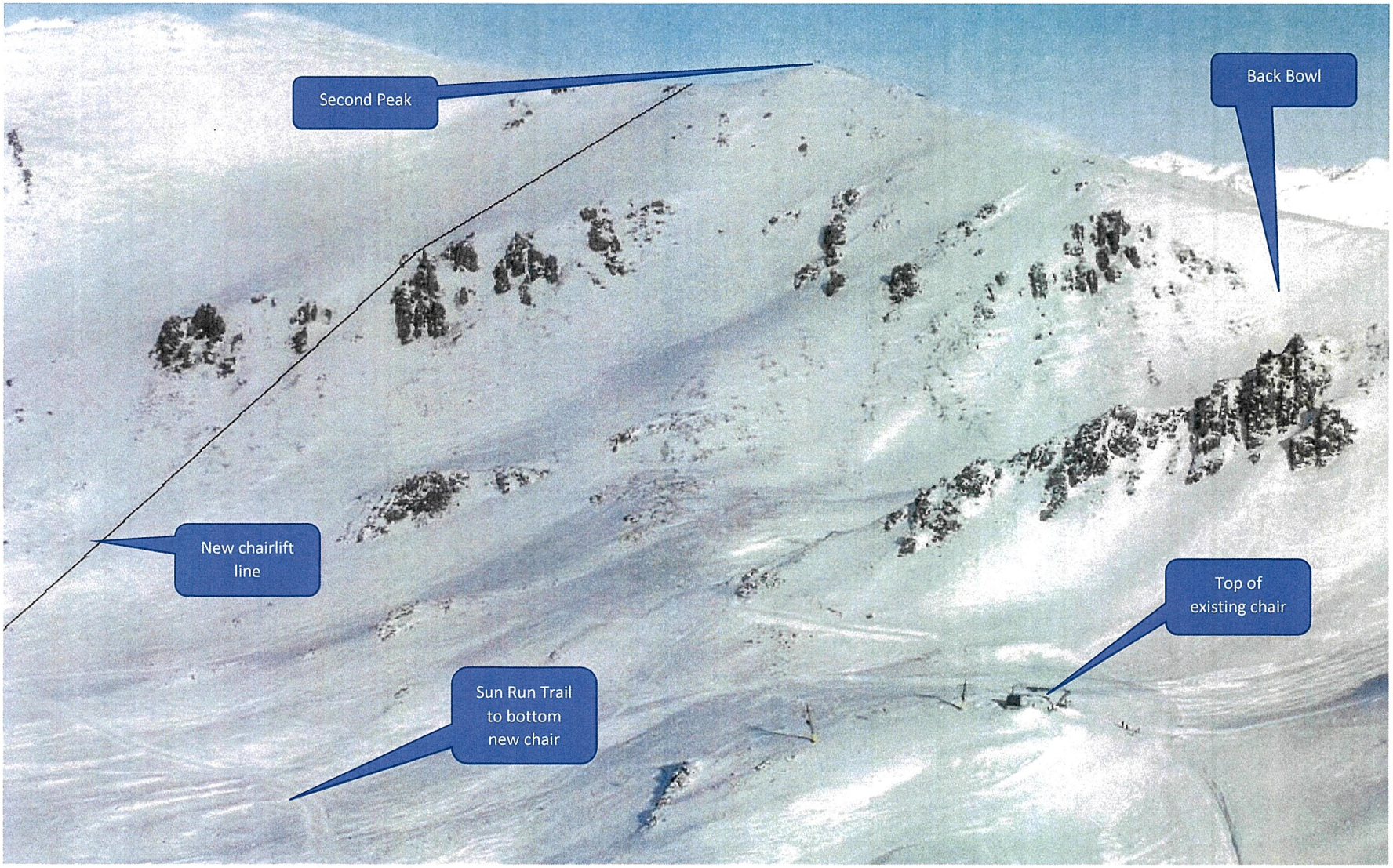
SURVEYED	DATE	CHECKED	DATE
TD	25/9/08	TD	12/10/18
DRAWN	**DATE**	**APPROVED**	**DATE**
TD	12/10/18	TD	12/10/18

SCALE: 1: 5,000 @ A3
DATUM & LEVEL: LINDIS PEAK 2000
DRAWING REFERENCE: J4024_T4
REVISION: B

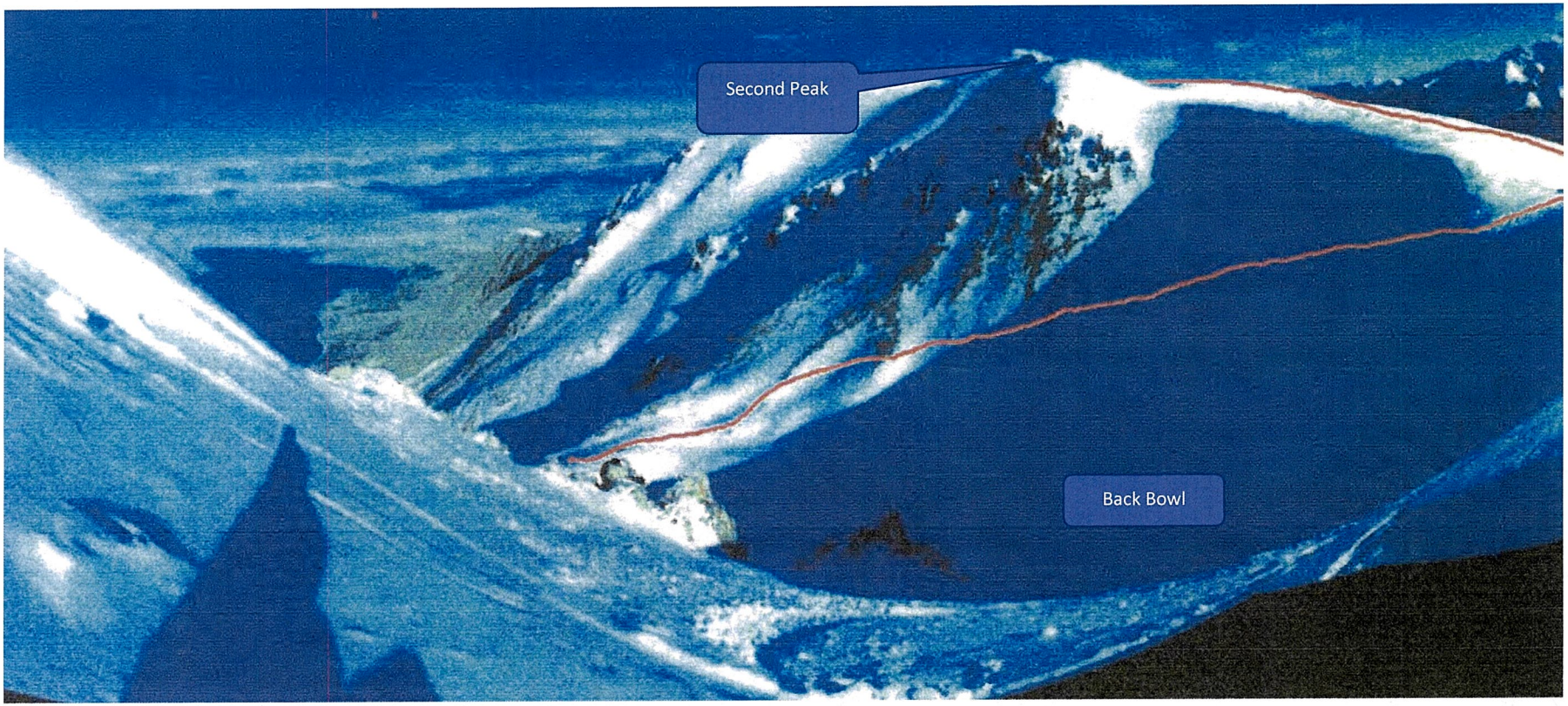

Chairway
Lake Dumbell
New chairlift
"Chairway"
Legend
Chairway
Lake Ohau
Village
Lake Ohau
Google Earth
Image © 2013 DigitalGlobe
N
3 km



Chairlift Location and existing trails



Chairlift Line



Proposed Access Track in Back Bowl

OHAU SNOW FIELDS

ECOLOGICAL REPORT on the PROPOSED NEW CHAIRLIFT in the UPPER BASIN

INTRODUCTION

The Ohau Ski Field is proposing to install a new chairlift to open up a considerable area of the upper slopes for skiing and snowboarding an area presently only accessible in winter by climbing on foot or skinning on skis.

An initial inspection/survey was made of the chairlift line and adjacent slopes on 12th June 2012. There was a thin cover of snow in places but the lift line was largely clear of snow allowing a reasonable assessment of the vegetation growing here and likely to be affected by the installation of a chairlift..

TOPOGRAPHY

The lift line starts on an upper shelf at about 1730 m and slightly downhill and several hundred metres south of the top of the main chairlift terminal. The proposed new chairlift runs steeply, straight uphill passing through a line of small rocky knobs and then to the ridge top at about 1880 m.

The whole slope is composed primarily of medium to large, angular blocks of undifferentiated greywacke. Occasional patches of finer material allow the small patches of vegetation to survive and grow. To the immediate north of the top of the proposed new lift a steep, narrow basin descends to easier slopes at the base of the lift. Further north is a larger, more symmetrical basin that extends from the ridge top down towards the water reservoir and main chairlift. To the south extensive steep rocky slopes drop down to easier slopes at roughly the level of the proposed new lift base before continuing steeply to the skifield base area and road end. These latter slopes are east and north facing.

VEGETATION

Although the snow and the time of year did not allow for a complete survey of the vegetation with some small herbs already "hibernating" underground, there was enough visible to obtain a good idea of the plants and plant communities of this area. This was supplemented by knowledge gained from previous visits to this area.

The whole area from the proposed new lift base to the ridge top has very sparse vegetation. Plant communities and individual plants are mainly confined to the small pockets of finer material that collects where the slope eases slightly or around some larger rocks or on small seepage areas.

Occasional small patches of slim leaved snow tussock (*Chionochloa macra*) occur on or near the proposed lift line. Blue tussock (*Poa colensoi*) and the tiny alpine grass *Rytidosperma pumilum* are part of this community together with a few small herbs.

Around some of the larger rocks a number of small shrubs and herbs grow, all common and typical of these alpine rock areas. All are low growing or form cushions. They include snowberry (*Gaultheria depressa* var. *novae-zelandiae*), *Dracophyllum pronum, Dracophyllum muscoides, Pimelea oreophylla, Kellaria dieffenbachia, Stellaria gracilenta,* the small alpine daisies *Celmisia laricifolia* and *Celmisia sessisiliflora,* a tiny rush *Carex pumila,* the alpine cushion *Phyllachne colensoi, Anisotome flexuosa,* a harebell (*Wahlenbergia albomarginata*), orange cushions of *Scleranthus uniflora,* a fern *Blechnum penna marina, Leptinella pectinata* and a bidibidi (*Acaena saccaticupula*). Large clumped rosettes of the cushion speargrass *Aciphylla dobsonii* are scattered amongst the rocks

The exotic sheep's sorrel (*Rumex acetosella*) is widespread and small patches of mouse-ear hawkweed (*Pilosella officinarum*) and the exotic grass brown top (*Agrostis capillaris*) occur.

Just below the proposed base station a small wetland or flush contains a patch of a wetland community with comb sedge (*Oreobolus pectinatus*), marsh marigold (*Psychrophylla obtusa*), *Collobanthus strictus,* a tiny cress (*Cardamins* sp.), mosses and a few tiny herbs, sedges and grasses not identifiable at this time of the year.

No plants were seen that are listed on the Threatened and Uncommon plants of New Zealand (2008 revision) (de Lange et al. 2009). At this altitude and with the coarse, rocky nature of the regolith and vegetation seen on this and on past surveys I consider that it is unlikely that plants listed as threatened will be found growing along the proposed lift line but this can only be confirmed conclusively by surveying in the summer when snow is not present and the small plants (grasses, sedges etc) are in flower.

On this terrain and at this altitude the small, widely spaced patches of slim-leaved snow tussock are important as are any small wet areas with their diverse cushion plants and turfs.

COMMENT ON THE PROPOSED CHAIRLIFT LINE

If the proposal is approved then the siting of the lift towers and base station will be important for reducing or eliminating damage to the very sparse vegetation. Because the vegetation is so spread out it should be relatively simple to site the towers on rocky areas devoid of plant life. If this is carried out then there the impact on the ecology will be negligible or extremely small.

TRACKS

It is not proposed to create tracks for access to build the lift towers. Tracks would add considerably to the visual impact and increase the risk of damage to the sparse ecology.

REFERENCES

de Lange, P.J.; Norton, D.A.; Courtney, S.P.; Heenan, P.B.; Barkla, J.W.; Cameron, E.K.; Hitchmough, R.; Townsend, A.J. 2009: Threatened and uncommon plants of New Zealand (2008 revision). *New Zealand Journal of Botany 47: 61-96*

Ohau Snowfields – Proposed Upper Chairlift and Access Track

Landscape Assessment Report

Prepared for Ohau Snowfields and Lake Ohau Lodge

September 2013

BLAKELY WALLACE ASSOCIATES

LANDSCAPE ASSESSMENT REPORT

1 OHAU SECOND PEAK LIFT AND TRACK

This report provides a landscape assessment on an application by Ohau Snow Fields and Lake Ohau Lodge to install a new upper level chair lift and access track.

The Snow Field was inspected on the 26 August 2013 for the purpose of viewing the proposed chairlift and track.

The Snow Field was snow covered at the time of the inspection. I have previously visited the area in summer conditions and also have photos provided by the applicant in summer and photos in light snow cover. I am familiar with the underlying landform, topography and vegetation patterns.

2. LANDSCAPE CONTEXT

Ohau Snow Fields is located on the Ohau Range above and west of Lake Ohau. The Ohau Range forms the western range fronting the extensive Ohau Basin which in turn forms part of the largest inter-montane basin in New Zealand, the Upper Waitaki/Mackenzie Basin.

West of the Snow Field is the mountainous Maitland Valley and the Barrier Range leading into the Main Divide of the Southern Alps.

The Canterbury Regional Landscape Study Review 2010 prepared by Environment Canterbury identifies Ohau Snow Field and adjoining mountain range within Landtype H14;

Landtype H14 - Central Sub-Humid to Humid Mountain Range Land Type

'Steep to very steep, dissected, central sub-humid to humid mountain ranges up to 2200 m; formerly valley and cirque glaciated with narrow rounded ridges, common cirques, extensive scree, and bedrock outcrop especially at higher elevations. The imprint of glaciation is very evident with moraine, kame terraces and thick colluvium mantling moderately steep to steep rectilinear lower mountain slopes. Snow tussock, subalpine scrub and alpine and rockfield vegetation features above 1220 with the induced short tussock grassland, scrubland or remnant beech forest on

the lower slopes[1]'

The Snow Field is within the Ruataniwha Conservation Park. It is zoned Rural Scenic in the Waitaki District Plan and has a Snow Field Operations Designation.

Ohau Snow Fields is classified as an 'Outstanding Natural Landscape' (ONL).

3.0 THE PROPOSAL

Ohau Snow Fields is proposing to install a new chairlift to open up the upper slopes for skiing and snowboarding in an area presently only accessible in winter by hiking on foot or skinning on skis.

The lift line starts on an upper shelf at about 1680m several hundred metres south and downhill of the main chairlift top terminal. The proposed new chairlift runs steeply, straight uphill passing through a line of small rocky outcrops and then to the ridge top at about 1950 m south of Second Peak.

The proposal also includes the formation of an access track linking from the end of the existing track (above Powder Bank) extending from the top station of the main chairlift climbing up Back Bowl to the summit ridge and then south along the ridge behind Second Peak to the top of the proposed new chair lift.

4.0 DESCRIPTION OF LANDSCAPE RESOURCE IN VICINITY OF PROPOSED LIFT LINE AND ACCESS TRACK

The Snow Field is entirely contained within one of numerous cirque basins of the Upper Ohau Range. The basin comprises extensive scree and bedrock on upper slopes with scree and pockets of snowbank and snow tussock on mid and lower slopes. A minor component of introduced grasses and plants is present remaining from past grazing and on rehabilitated formed trails. The basin has been a snow field since1956.

The facilities currently include the main access road, car parks, day lodge and associated base buildings adjacent to the car park; learners slope and platter lift below and north of the base buildings; the main chairlift on the northern side of the basin; various formed and unformed trails and a snow making pond on the upper shelf and south of the main chairlift.

5.0 INHERENT VALUES

As with the whole of the Ohau Range the Snow Field has high inherent natural

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[1] Canterbury Regional Landscape Study Review 2010
Landscape Assessment Report (final) for Ohau Snow Fields and Lake Ohau Lodge for application for upper chairlift and access track. **Blakely Wallace Associates**, September 2013

landscape values (reflected in its ONL status).

The Snow Field is located within the glaciated upper mountain consisting of upper bowls and shutes, extensive peri-glacial features and associated steep scree covered mountain slopes; a more gentle mid shelf area as well as minor ice formed shelves alternating with predominantly steep but variable terrain of scree, exposed bedrock and pockets of snow tussock on lower slopes.

Impressive rocky bluffs and outcrops intervening with rocky scree are a feature of upper slopes. The northern side of the basin is notable for highly impressive 'over-steepened ice gauged bluffs' contrasting with steep scree slopes below.

6.0 ASSESSMENT OF EFFECTS

The scope of effects on landscape and visual values includes effects from within the Snow Field including the upper mountain, from the Snow Field access road and effects from public viewing areas within the Ohau Basin.

The effects are limited to;

- the introduction of the new Second Peak chairlift including terminals, lift towers and chairs and their installation.

- the proposed track from the top of the Powder Bank (from end of existing track) up Back Bowl to the ridge.

The bottom terminal of the chair lift will be located on gentle topography on the shelf with the lift towers spaced up the slope to the top terminal located on the ridge crest (refer images 1-4 Appendix1). The topography of both the proposed lift line and within Back Bowl where the track is to be located is predominately broken rock and scree.

The alignment of the proposed track is from the end of the current track and then climbing up the north side of Back Bowl in a 'corkscrew' alignment around the Bowl up to the lowest point on the ridge within Back Bowl. The track then continues along the ridge behind Second Peak to the top lift terminal location.

The access track is required for;

1. access for the digger for the installation of the chairlift
2. access for snow groomer and skiddoo in winter for operational purposes (need to sight chair cable line to establish if clear of ice before start up)
3. an easy trail down for intermediate skiers
4. patrol injury rescue

The track is proposed as 3-4 metres wide with a maximum grade of 1:5 *(refer Images 1and 2 for indicative alignment of track).*

Chair Lift Installation

The holes for the lift towers will be excavated by digger machine with access from the top, down the lift line. There will not be separate access track to individual towers. The towers and concrete for foundations will be lifted in by helicopter.

The lift towers will be painted a dark green to match the existing lift towers of the main chairlift

1. Effects from within Snow Field

Any landscape and visual effects of the new chair lift and access track have to be considered in terms of the existing development of the Snow Field. There are already lifts and tracking and this application adds to existing facilities and is a logical addition to the development of the Snow Field to open up further terrain.

The upper basin is to the south and separated from the main shirtfront of the Snow Field by the upper shelf previously referred to. From many areas within the Snow Field, the chairlift and new track will not be, or be only partly visible.

The terrain for the proposed lift and access track is on predominately broken rock and scree with small pockets of mainly snow tussock on lower sections of the Back Bowl. There will be very little disturbance of vegetation.

The main ground disturbance will be in forming the access track up onto the ridge. This will introduce a man-made alteration and disturbance to Back Bowls' scree slopes that will have the effect of reducing naturalness to some degree. However this must be seen in context of other modification on the Snow Field and balanced in the context of the predominant use of the area which is for recreation.

The new chairlift and track are at a higher altitude and extend onto the skyline ridge so upper sections of the lift and track will break the skyline. This must also be considered in light of the Snow Field Operations Designation. In my opinion the actual landscape and visual effects of the addition of the chairlift and access track are minor including the effects on the skyline.

In summary I conclude taking into account the existing Snow Field development and the snowfield's operations designation that the landscape and visual effects of the additions within the Ski Area will be minor.

2. Effects from Snow Field access road.

Because of the location of Back Bowl and the siting of the new lift line on the

south side of the ski area, and the high shelf referred to in relation to the Snow Field access road, the view of the upper chair lift and track will be entirely obscured and have little or no landscape and visual effects. A section of the lower half of the chairlift will be just visible from the main public car park but again this has to be considered in relation to existing development and the District Plan designation of the Snow Field.

In summary, the effects from the Snow Field access road will be negligible and no more than minor.

3. Effects from Ohau Basin

Public views from the Ohau Basin of Ohau Snow Field occur from:

- various points along the Lake Ohau Road
- the south west sector of Lake Ohau
- Lake Ohau Alpine Village
- the Lake Ohau section of the Alps 2 Ocean Cycle Trail;
- the Glen Lyon road
- Public Conservation Land out on the basin.

The Ohau Snow Field is a reasonably dominant visual feature from the Ohau Basin floor and from the lake. The Snow Field access road however is the most dominant feature and is visible from most public locations in the Basin and has left a significant visual impact.

The existing chair lift is also visible from most public locations though it appears as a thin line. The base buildings are not visible. Existing tracks and trails are barely visible and the viewer would have to look hard to see them. They are insignificant in comparison to the access road.

Beyond approximately 8km away from the upper basin, tracks, trails and the chairlift are reasonably 'difficult to see'. This includes from Lake Ohau sections of the Alps2Ocean Trail.

The Second Peak chairlift and access track will potentially be more visible due to the higher elevation and 'skyline effect'. The upper sections of the Back Bowl access track will be more visible due to Back Bowl being located to the north of Second Peak and therefore more in the line of sight from the basin/lake views

There are factors however, that reduce the significance of the higher elevation and skyline effect. These include;

- The Second Peak chairlift and the access track are not directly in view from the basin because of the proposed siting on the southern side of the

field (less so for the upper section of the access track in Back Bowl).

- The presence of the upper shelf which masks the location of the proposed chair lift from many views (excluding the upper sections of the access track within Back Bowl).

- That the disturbance is on scree and broken rock which creates less visual impact compared to vegetation disturbance and is not subject to erosion.

In my opinion the visual effects of the chairlift and access track from all locations from the basin floor including on Lake Ohau and from the Alps2Ocean Trail are assessed overall as minor.

7.0 CONCLUSION

1. The Ohau Snow Fields is within the Ruataniwha Conservation Park and has a 'Snow Field Operations Designation' in the Waitaki District Plan.

2. The proposed work is a logical addition to the development of the Snow Field.

3. The proposed chairlift and lower parts of the proposed access track within Back Bowl will be obscured from view from many areas within the Snow Field, also from the Snow Field access road and from many views within the Ohau Basin including the Lake Ohau Road.

4. Views from the Ohau Basin, of the proposed chair lift and access track from more than 8 kilometres out (including from Lake Ohau sections of the Alps to Ocean Trail) will be reasonably difficult to see.

4. The upper section of the access track in Back Bowl will be visible and skylined from many areas but due to the narrow width of the track and the nature of the substrate (i.e. scree) the effects will be minor.

5. The proposed additions must be considered in terms of existing development on the Snow Field and the Snow Field Operations Designation. The access road will remain the dominant landscape and visual effect of the Snow Field.

6. The overall landscape and visual effects of the proposed chair lift and access track taking into account the existing Snow Field development and the Snow Field's operations designation are assessed as minor.

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September, 2013

References:

1. Environment Canterbury. The Canterbury Regional Landscape Study Review 2010
2. Simpson N.C. Ohau Snow Fields. Ecological Report on the proposed new Chairlift in the Upper Basin

APPENDIX 1 : OHAU SNOWFIELDS: IMAGES IN SUPPORT OF PROPOSED UPPER CHAIRLIFT AND ACCESS TRACK

Image1: Indicative alignment of proposed access track in Back Bowl. Track climbs around Back Bowl to low point on ridge and continues along the ridge and behind Second Peak to proposed Chairlift top terminal.

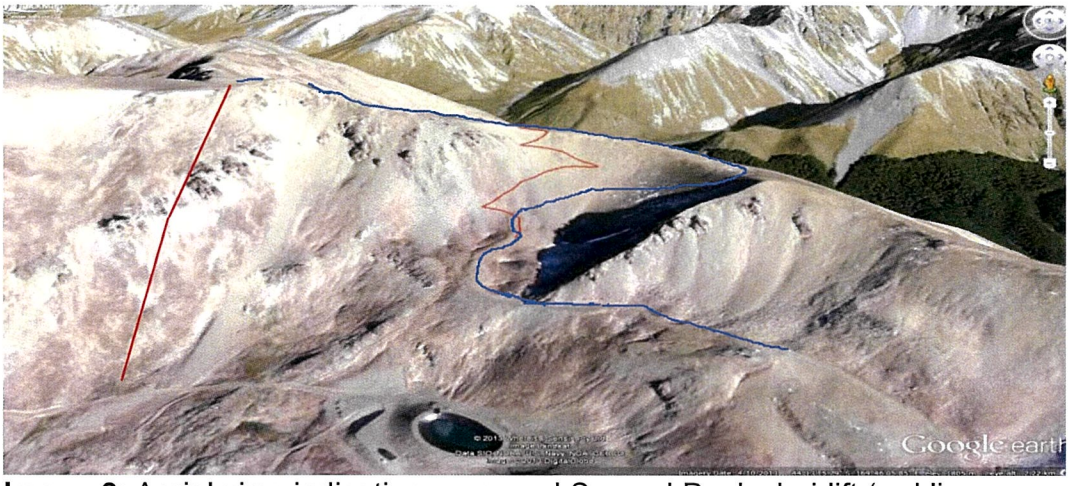

Image 2: Aerial view indicating proposed Second Peak chairlift (red line on left). Blue line is indicative alignment of Back Bowl access track and the following along ridge to behind Second Peak to the top terminal of chairlift. (Red zlg zag line is an earlier track alignment now superseded by blue line).

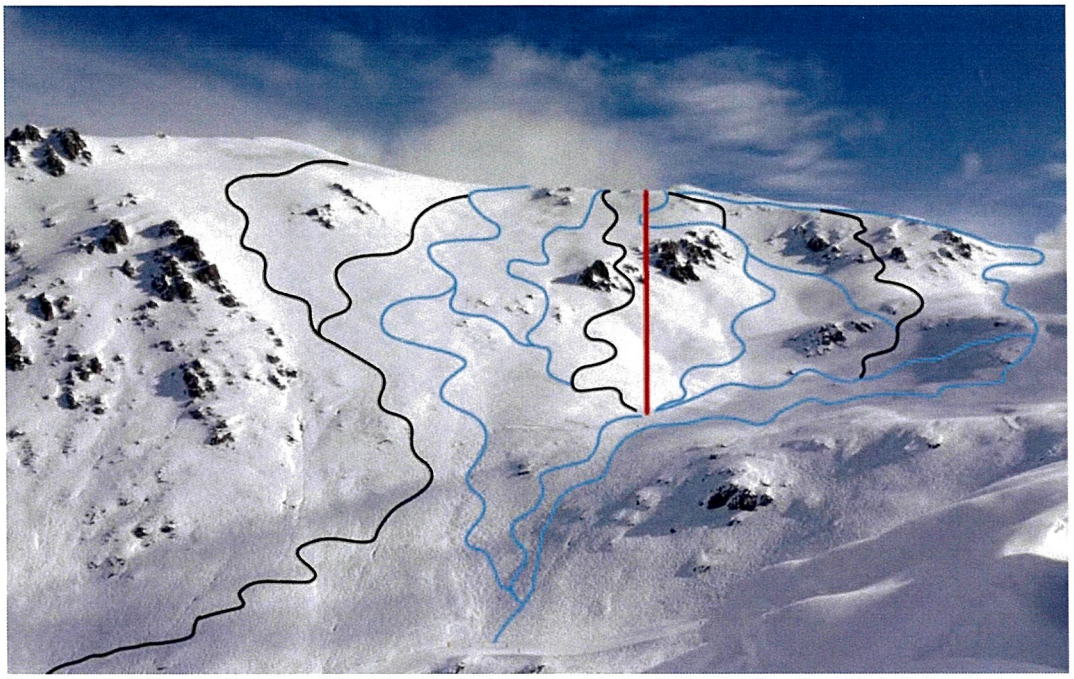

Image3: View of upper Basin showing proposed chairlift alignment and blue and black runs

Image 4: Location of proposed chairlift. Second Peak to right of chairlift line

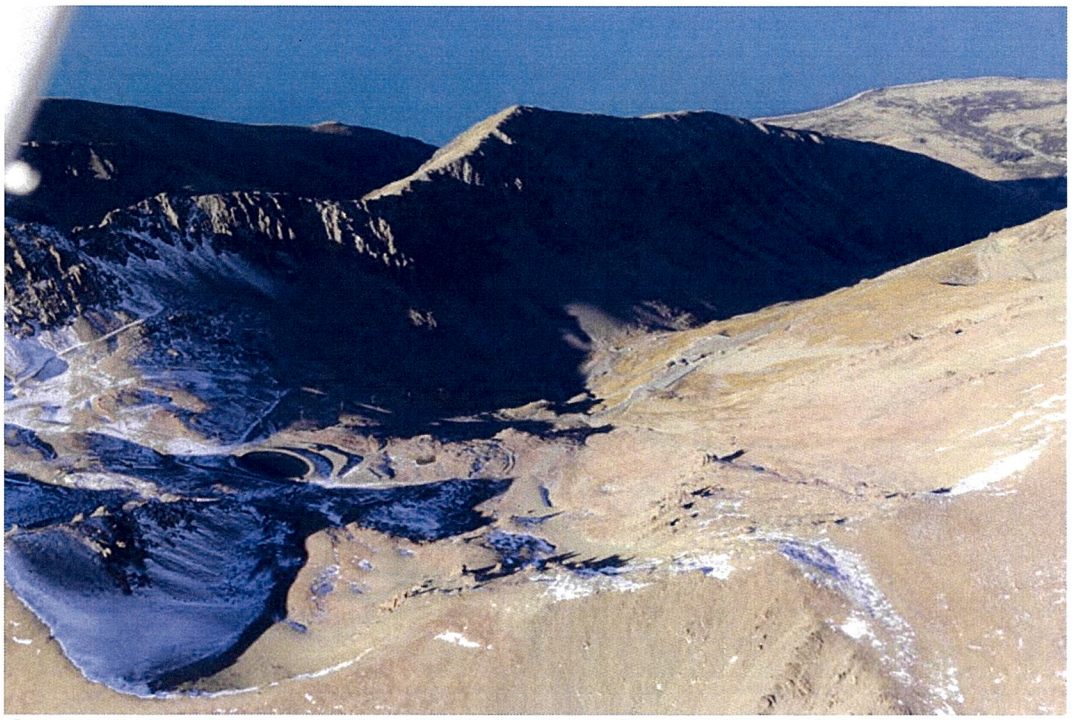

Image 5: Aerial view of Ohau Skifield. Back Bowl bottom left

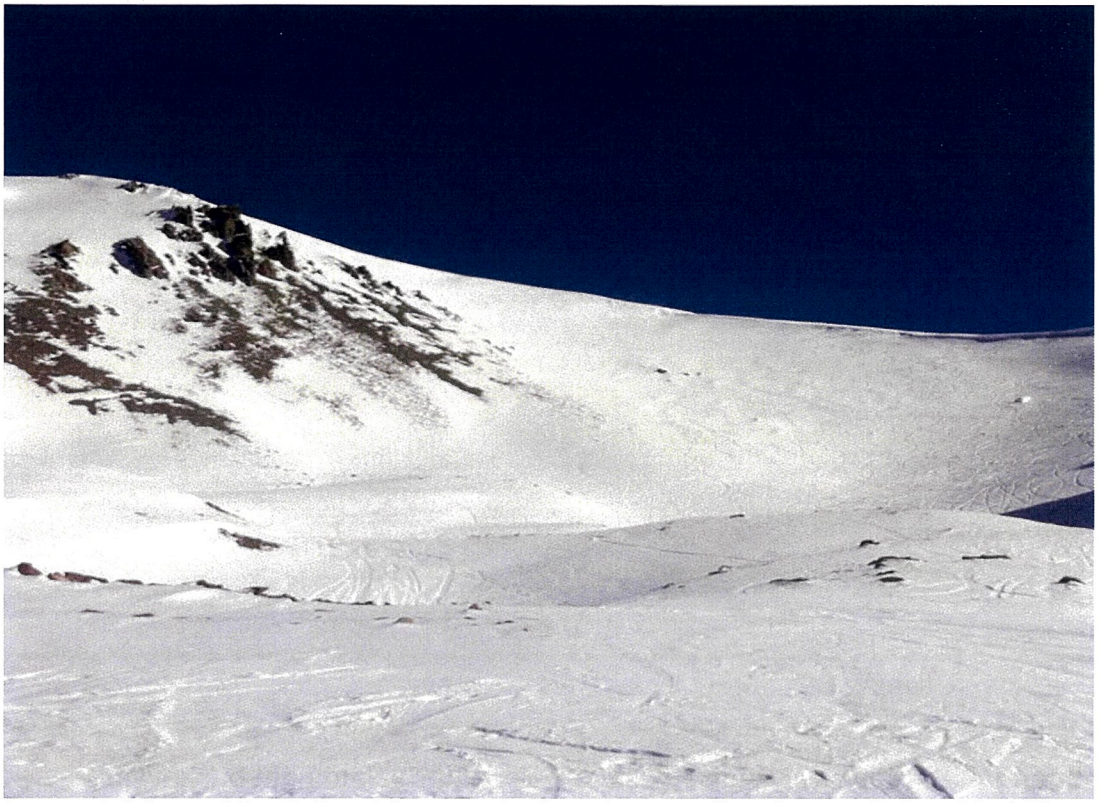

Image6: View of Back Bowl from end of track extending from existing Chairlift top terminal

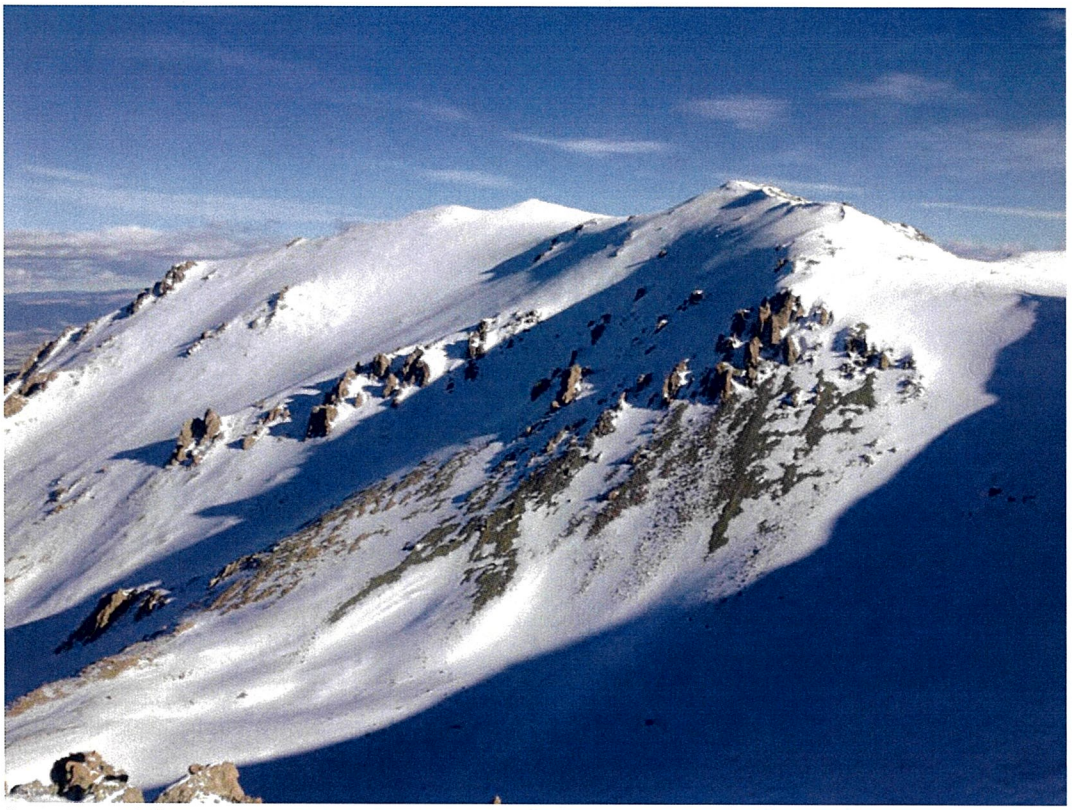

Image 7: View across Back Bowl. Proposed liftline bisects 'middle rocky rib' outcrops below Second Peak

Image 8: Low point on ridge where proposed track will emerge from Back Bowl

Image 9: Aerial view of Skifield Basin. Existing chairlift on right. Upper shelf masks part of Back Bowl. Proposed chairlift line out of photo far left.

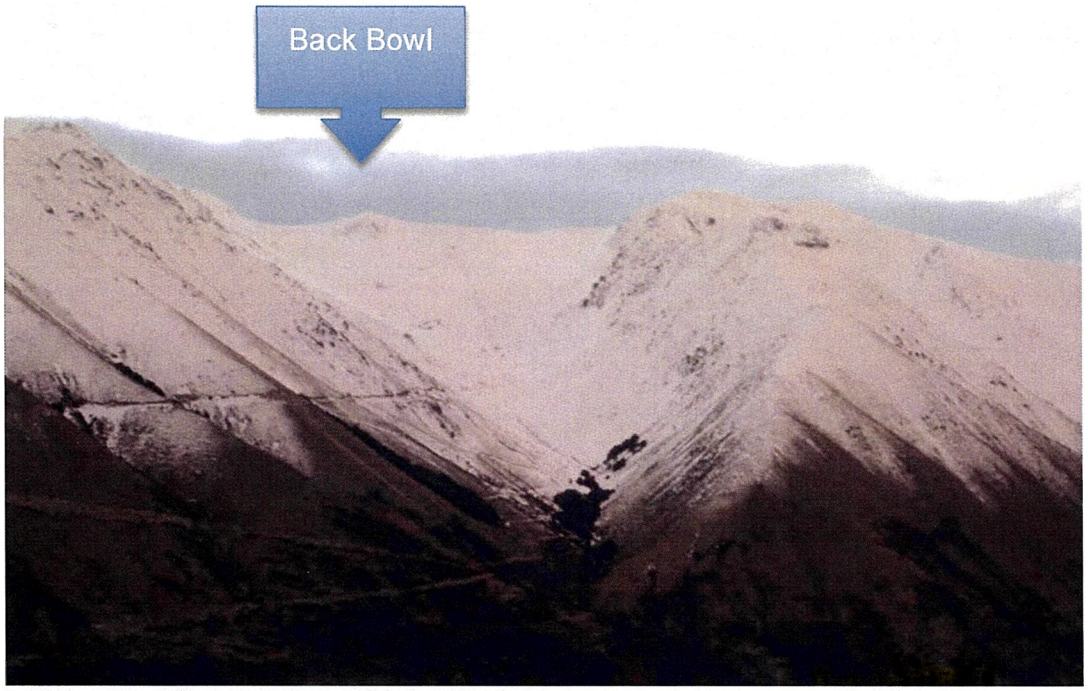

Image 10: Winter view of Snow Field from atleast 4km east of Lake Ohau Lodge. Proposed upper chairlift location is out of view to left of photo. Note closer to the Lodge the Snow Field is not visible.

Image 11. View to Ohau Snow Field from Lake Ohau Road (approximately 5 km from Lake Ohau Lodge). Proposed chairlift is still out of sight. Top of proposed access track maybe just visible in summer conditions but 'difficult to see'.

Image 12: View from where Lake Ohau Road meets the lake (approx. 9 km from upper Basin). Proposed chairlift and access road will be 'difficult to see.'

Image 13: View from north of Red Lagoon. Proposed chairlift out of view. Proposed access track will be difficult to see or not visible from this distance.

Image 14: View from Lake Ohau Road adjacent to Table Hill. Both upper chairlift and access track will not be visible from this distance (approximately 18km from Upper Basin)

Image 15: View from Lake Ohau section Alps2Ocean Cycle Trail, (Ohau Terminal Moraine Scenic Reserve). Proposed chairlift will be out of view. Proposed access track will be visible from most sections along the Lake Ohau section of the Trail but difficult to see especially beyond 8km from the Upper Basin.

Image16: View from Ohau Alpine Village. Chairlift out of view. Upper section of track in Back Bowl maybe just visible

Image 17: Broken rock and scree in Back Bowl