

REMARKABLES SKI AREA SHADOW BASIN CHAIR REPLACEMENT

LANDSCAPE AND VISUAL ASSESSMENT

NZ SKI LIMITED, FEBRUARY 2022

BLAKELY WALLACE ASSOCIATES

CONTENTS

Contents	1
1 Introduction & Background	2
2 Description of the Landscape and broader Context.....	2
2.1 Shadow Basin Description	3
3 Description of the Proposal.....	4
3.1 Chairlift replacement.....	4
3.2 Proposed Chairlift	5
3.3 4WD Road access to site.....	5
3.4 Snow Making installation.	5
3.5 Trail development.....	5
4 Assessment of Landscape and Visual Effects.....	6
4.1 Landscape Effects.....	7
4.1.1 Lower Lift Station	7
4.1.2 Top Lift Station.....	7
4.1.3 Lift Line and Towers	8
4.1.4 Access Road and Trail formations.....	8
4.1.5 Snowmaking equipment and installation	9
4.2 Visibility and Visual Effects	9
4.2.1 Trail Development and Snowmaking	9
4.2.2 Chairlift and Stations.....	10
4.2.3 Base station and Platform	11
4.2.4 Visual Effects Summary.....	12
Landscape & Visual	12
4.3 Effects Rating Summary	12
4.4 Evaluation.....	13
Statutory Provisions	14
4.5 14	
5 Conclusion	15

1 INTRODUCTION & BACKGROUND

This report provides the landscape and visual assessment for the proposed replacement Shadow Basin chairlift at the Remarkables Ski Area Queenstown. The report includes:

- A description of the landscape and regional landscape context
- A description of the proposal
- Assessment of landscape and visual effects
- Conclusion
- Attachments

2 DESCRIPTION OF THE LANDSCAPE AND BROADER CONTEXT

Situated on the eastern side of Lake Whakatipu Waimaori, the Remarkables Ski Area encompasses a series of alpine cirques and basins on the northern aspect of the Kawarau/Remarkables Mountains.

Kawarau (The Remarkable Mountains) is perhaps the most iconic and instantly recognised mountain range in New Zealand, it is synonymous with Queenstown and in particular the spectacular western flank which overlooks and dominates the town. Double Cone (2319m) is the highest peak within the Whakatipu and the wider Central Otago area.

Kawarau/Remarkables also forms the upper enclosing range to the Arrow Basin and Gibbston end of the Whakatipu Waimaori Basin. Its close proximity to Queenstown and its relative accessibility makes it significant for its recreational values.

The Remarkable Skifield operating since 1985 is situated within the upper catchment (>1500asl) of Rastus Burn, a north facing side tributary of the Kawarau River. The Skifield occupies the upper alpine basins of the Rastus Burn catchments and is overlooked by the imposing Cone Peaks. It is bordered by Wye Creek to the South, Doolans Creek catchment to the south east and Ben Cruachan Range to the East, It is entirely enclosed within the main range of the Remarkables and is currently spread across three main areas known as Curvey Basin to the south, Shadow Basin to the west, and Sugar Bowl to the east. The latter 2 being distinctive cirque basins with tarns.

The ski area concession excludes Lake Alta basin. Lake Alta basin is the classic alpine cirque basin with Lake Alta as the central focus. Bare rock, extremely rugged, rocky bluffs and outcrops, scree, debris boulders, interspersed with bands of fell field and snow tussock are the key features. It has a remote and backcountry character despite its closeness and proximity to the skifield.

The geology and geomorphology of the Skifield comprises steep, rugged and dissected ridgelines of predominantly high-grade schist. Strongly glaciated at higher elevations with smaller glacial valleys terminating in cirques containing tarns (eg. Shadow Basin to the West, Sugar Bowl to the East and Lake Alta to the South), but no permanent ice fields. Scree and boulder fields are common above 1600m together with fell field. This grades below to mountain slopes of predominantly snow tussock. Slump topography and erosional features are also present.

The climate lies in the transition zone between the wet western alps and the drier semi-arid Central Otago Mountains. It is in the rain shadow of Ka Tiritiri-o-te-Moana (the Southern Alps) and is subject to a semi-continental climate with warm summers and cold winters. Winters bring intermittent snow to above approximately 1000m and occasional falls to the basin floor.

The Remarkables Ski Area is predominantly situated within the Rastus Burn Recreation Reserve. A small section adjoining Lake Alta and Wye Creek Saddle sits within the more extensive Remarkables Conservation Area. Both are managed by the Department of Conservation (DoC) and part of a lease, easement and concession agreement between DoC and the applicant, NZSki Ltd. The area is within the Queenstown Lakes District. The adjoining Doolans Catchment is within Central Otago District. The Ski Area is within the Remarkables Ski Area Sub-Zone of the QLDC District Plan.

The whole of the Remarkables Skifield Zone is classified as Outstanding Natural Landscape (ONL). This classification is a clear indication of the very high landscape values of the Remarkables Ski Area and adjoining areas as a whole.

Currently, the ski area infrastructure contained within the Remarkables Ski Area Sub-zone consists of:

- The Remarkables access road,
- Waste water discharge ponds at approximate 1420masl,
- A series of parking areas,
- A large, architecturally designed base building, a utility building and a medical building,
- 2 surface covered conveyors approximately 150m long each.
- 1 x 20m surface conveyor.
- Chairlifts with top and bottom structures including:
 - The Shadow Basin chairlift which begins near the base building and extends approx. 980m to the southwest to reach the upper extents of the Shadow Basin at approximately 1940masl.
 - The Alta chairlift approx. 460m long which begins approximately 170m south of the base building and extends south to approximately 1760masl.
 - The Curvey Basin chairlift approx. 1250m long which begins near the base building and extends to the upper reaches of Curvey Basin near the base of the feature known as East Wye Saddle at approximately 1900masl.
 - The Sugar Bowl chairlift approx. 1060m long which starts near the base building at 1611masl and extends east to a relatively flat area in the upper Sugar Bowl Basin at approximate 1869masl.
- A snow-making pump house near the top of the Alta chairlift.
- Snowmaking machines,
- A series of earth worked ski trails,
- Snow fences and signs.

The ski area infrastructure described above forms part of a modified landscape which exists within the context of a much larger, natural alpine landscape.

The ski area is well contained within the Rastus Burn catchment and is not readily visible from Queenstown or the surrounding areas. The visual effects of ski area infrastructure do not spill into the Doolans Creek, Wye Creek or into the west face of the Remarkables.

Some visual effects of the ski area infrastructure encroach on the highly natural Lake Alta area, but this area continues to display a high level of natural character. The existing ski field infrastructure is generally only viewed from within the upper Rastus Burn. The only prominent indicator of ski area development on the Remarkables as viewed from Queenstown and the surrounding area is the access road, which traverses the lower northern and western slopes of the mountain.

2.1 SHADOW BASIN DESCRIPTION

Shadow Basin is the western alpine cirque basin of the Ski Area. It sits above the base facilities area and opens out to a clearly defined and contained upper basin. The side tributaries draining the basin join at the lower end before descending down the very steep lower face to join the Rastus Burn. Large rocky bluffs and a waterfall are key features of the lower face adjacent to the existing Shadow Basin base station.

The mid-section of the basin is notable for the wetlands, tarns and seeps that occupy the flatter zones in between steeper predominantly tussock covered steeper topography.

The southern (north facing) side forms a prominent ridge with extensive rock, boulderfield and scree higher up the ridge. There is also significant cushionfield vegetation as noted in the Ecological assessment by E3 Scientific. The ridge extends all the way to the distinctive cone at the head of the basin. The cone is collectively part of the skyline upper cones and rugged rocky ridges (including Double Cone) which are major and defining features of the Remarkables northern end and which are highly visible from the Arrowtown end of the Whakatipu Basin.

The northern enclosing ridge (south facing) is lower and less prominent and visible compared to the opposite ridge. The ridge forms part of the Cone Peak leading ridge at the northern end of the Remarkables. The Cone Peak ridge is truncated by the Shadow Basin cirque and the ridge extends to Cone Peak summit at the head of the Shadow Basin.

Within the context of the natural landscape of Shadow Basin are the man-made changes of skifield development including the existing lift line, top station and trail works and other infrastructure. These impact on the natural character in varying degrees. The Highway Trail has had the most significant impact below the headwall of the northern ridge.

3 DESCRIPTION OF THE PROPOSAL

This proposal seeks to construct a new chairlift which will provide access from the base facilities to Shadow Basin, the new alignment will also provide lift access to Lake Alta basin.

The existing Shadow Basin chairlift will be removed. Two new ski access trails are proposed. Upper Calypso trail (30m wide) will link the new top station with the existing Shadow Basin ski runs and a narrower (15m) Cushion trail which traverses the ridge line and terminates at the Alta Chute.

A detailed description of the proposal is contained within the Assessment of Environmental Effects which forms part of this application.

- Replacement and realignment of Shadow Basin chairlift
- Road access to site, Chairlift & top station location
- Snow Making installation, power reticulation
- Trail development

3.1 CHAIRLIFT REPLACEMENT.

Requires the removal of the existing fixed grip Quad chair lift which rises from 1616m asl to 1943m asl. Once the bottom station is removed preparation of the new site requires material to be excavated and removed from site. This will lower the existing elevated platform down to roughly the same ground level as the base of the learners terrain onto the base building platform at 1611m.

A total of 4,100m² of area will be disturbed to form the new bottom station platform. The earthworks will require a total of 10,660m³ of bulk cut and 150m³ of fill. It is understood the surplus material will be transported to car park 1 and 4 and spread across the parking area surfaces raising the ground level by 0.7m in each location.

3.2 PROPOSED CHAIRLIFT

The proposed Shadow Basin chairlift will be a six-seat, detachable chair with 53 carriers. The chairs/carriers are of a tubular galvanised frame and hanger arm.

A bottom station at 1612masl near the base building Station will be approximately 19.5m x 9m x 6.92m in height from a proposed ground level and have a curved roof line and enclosure 2.5m high. The upper curved area is a reinforced glass in 1m width sections. All paint of the tower structures and station cladding is of the colour "Ironsand grey" which has an LRV of 9%. A storage building to house chairlifts is to be located alongside the bottom station.

A small alteration to the tributary stream bed from Shadow Basin adjacent to the Base Station is required.

There will be 10 intermediate towers ranging in height from 5.7m to 15.54m. These lift towers will also be coloured 'Ironsand grey'.

The top station building and control room at 1987masl will be the same design and cladding as per the base structure.

Steel cables between the top and bottom station extending approximately 1.05km in length.

3.3 4WD ROAD ACCESS TO SITE.

To be able to get heavy machinery for construction, concrete and raise station structures at the top station site a 4WD road be constructed in part, over new ground, and made safe over the existing road surface for heavy machinery access. The same road will be maintained for future access to the top station for maintenance purposes once the construction phase is complete. It is trafficable surface and will be no more than 4m wide. 55% of the road construction will be utilising existing road or already formed trail surfaces. 40% will be on approved trail development surface and 5% will be on approved virgin landscape comprising open rock field.

A total of 10,000m² of area will be disturbed to form the road access. The earthworks will require a total of 13,350m³ of bulk cut and 7,500m³ of fill.

3.4 SNOW MAKING INSTALLATION.

Comprises 16 stick guns or Lances as they known. These will be installed on inground pits approximately every 50m apart, commencing from Mid station of the existing chair lift and following the trail right to the top of the proposed new lift top station. All water and air pipe is buried along the proposed and existing trail network. Also in the same trenches is power and communications cabling.

3.5 TRAIL DEVELOPMENT.

To support the new top station location of the chair lift, earthworks are required to form two new ski access trails connecting with the existing trail network. The main Calypso trail travels 365m at an average slope angle of 24%. It is 30m wide across the trail surface with the greatest fill area covering 18m horizontal span or 22m fill batter below the trail surface. This new trail links to the top of the existing Calypso trail northwest of the proposed top station.

The second Cushion trail leads away to the east along the north side of the ridge/spur towards the top of Alta Chute. This trail is 15m wide across the finished surface and approximately 183m long.

All trail surfaces when finished are to reflect the natural rock cover existing prior to works.

A total of 23,700m² of area will be disturbed to form the proposed ski trails and top station. The Earthworks will require a total of 49,050m³ of bulk cut and 49,000m³ of fill.

4 ASSESSMENT OF LANDSCAPE AND VISUAL EFFECTS

The assessment of landscape and visual effects comprises two parts.

- *the assessment of landscape effects. This deals with the effects of change on the landscape as a resource, and its inherent character.*
- *the visual effects of the development.*

The change to the natural characteristics of Shadow Basin by the proposed development have to be considered in terms of the existing skifield development, the Remarkables Ski Area Sub-Zone, the Recreation Reserve status of the area and the terms of the lease, easement and concession agreement between NZSKI Ltd and the Department of Conservation.

In assessing the extent of landscape and visual effects, the seven-point scale recommended in the Te Tangi o te Manu - Aotearoa New Zealand Landscape Assessment Guidelines is used.

The seven point scale is:

Landscape Effects:		Rating:
1	No change or barely legible change to some landscape elements & character; no change to values.	No Effect /Very Low
2	Limited change to some landscape elements & character, no change to values.	Low
3	Increasingly evident change to some landscape elements & character: limited change to values (naturalness, expressiveness, aesthetic value, etc).	Low-Moderate

4	Appreciable change to some landscape elements & character: more obvious impact on some values	Moderate
5	Marked change to some landscape elements, character and values.	Moderate-High
6	Obvious degradation of landscape elements. Character and values.	High
7	Very serious and obvious degradation of elements, character & values.	Severe

4.1 LANDSCAPE EFFECTS

As stated above this refers to the effects of change on the landscape as a resource and its character.

An overall Ecological Assessment of the Rastus Burn basin has been prepared by Conservation Consultancy Limited and reviewed by e3 Scientific. In addition an Ecological Assessment has been prepared specifically for this proposal (*Shadow Basin Terrestrial Ecological Assessment February 2022*). Observations from these reports have been included where they relate to landscape matters.

4.1.1 LOWER LIFT STATION

The Lower Lift Station including storage building for chairlifts, is located in close proximity to the Base Facilities building and other infrastructure in that area.

The platform that has been previously constructed for the existing Lower Lift station is predominantly modified terrain with a small 80m² area of unmodified tussock grassland on the slope above the terrace. This tussock area will be uplifted and relocated back onto the contoured slope in the same location. The landscape impact of disturbing the already modified areas is Low as these areas are already highly modified.

There is approximately 20m of streambed alteration required to integrate and align with earthworks associated with the Lift line and Base Station replacement. The work relocates a small waterfall upstream approximately 10m and recontours the watercourse of a short section. Half of the length of streambed alteration is previously disturbed terrain. The landscape and visual effects of this work is considered minor.

4.1.2 TOP LIFT STATION

The Top Lift Station is positioned considerably higher up the slope compared to the existing top Station and will require significant earthworks (2350m³ of cut) to form the platform within a natural rockfield. Similar composition material from the rockfield will be uplifted and placed on cut and fill batters which will mitigate and reduce visual effects. There will be a moderate landscape effect from disturbing the rockfield, as the natural profile of the ridgeline will be punctuated by the platform earthworks. Areas of the rockfield will be displaced by built structures, and the composition and size of the rocks

for the remainder of the surface area will be smaller to provide a uniform surface for accessibility. This would primarily be a factor when viewed from above. When observed from elevations below the station, the shape and material on the surrounding batters combined with the relative small scale of the modifications in relation to the scale of the surrounding environment would help absorb the top station buildings and platform.

4.1.3 LIFT LINE AND TOWERS

The proposed chairlift alignment while starting close to the existing station is aligned up the southern ridge at a higher angle to reach the top station.

The existing Lift line is located more or less in the centre of Shadow Basin. This has advantages in landscape terms in that it is aligned in the centre of the basin and does not cut across slopes and is able to be overall more easily visually absorbed.

The replacement chairlift is off to the side and is aligned across the slope on a visually prominent and exposed ridge. Although the chairlift towers have a small 9m² footprint on the land, and are set well below the skyline ridge, the new alignment arguably has a greater impact on natural character and will make it more visible over a wider area (as described under Visibility & Visual Effects (4.2).

This aside, it is considered the chairlift, including towers, new alignment, top and bottom stations overall will have similar effects on the landscape and natural character of the basin as to the existing quad chairlift. It is replacing one chairlift with another rather than adding another. In effect most people will be unlikely to perceive the change in location from within Shadow Basin or the Rastus Burn Basin.

As discussed above, the chairlift line and towers are predominantly on undeveloped and natural terrain and this will be changed by this proposal. The south ridge is a prominent and a high ridge leading up to Cone Peak (and the crowning group of summit cones). The proposed new chairlift together with the top station will cumulatively add to the landscape effects of ski area development within Shadow Basin.

4.1.4 ACCESS ROAD AND TRAIL FORMATIONS

The proposed access road and trails will be additional and permanent alterations to Shadow Basin. The trails have been located mainly on rockfield and scree areas and sited to avoid sensitive vegetation where possible (refer e3 Scientific report and recommendations).

For disturbed areas as a result of trail formations, the vegetation and soil (where available) will be uplifted and relocated onto the batters of the trail slopes to minimise visual effects and disturbance as much as possible.

The access roads and proposed trails will have greater effects on the landscape and natural character than the actual chairlift stations. This is a factor of the extent of earth disturbance and change/alteration to natural character required to construct these elements.

The high sections of the access road and trail formations are also predominantly on undeveloped and natural terrain and will be new man-made features that will contribute cumulatively to the effects of ski area development within Shadow Basin.

This has to be balanced against the expectation of further development in a designated Ski area Sub-zone and the recreation reserve status of the Rastus Burn Basin.

4.1.5 SNOWMAKING EQUIPMENT AND INSTALLATION

During use, snowmaking may create an unnatural appearance during periods of intermittent natural snow cover.

Otherwise snowmaking infrastructure has a low impact on landscape character due to their light footprint. They are an expected aspect of skifield development.

4.2 VISIBILITY AND VISUAL EFFECTS

A 3d terrain model has been created from LINZ 20m and 50m datasets and set a non-diffuse light source in the location of the proposed top station and bottom station infrastructure. Areas of illuminated terrain shown in [SHEETS 2-9](#) illustrate the Zones of visual Influence, This has been followed up with on-ground observations from key viewpoints.

The following is a description and analysis of this process.

4.2.1 TRAIL DEVELOPMENT AND SNOWMAKING

4.2.1.1 WITHIN THE SKI AREA SUB ZONE (SEE APPENDICES: SHEET 2)

The proposed Top Station platform, Calypso extension and Cushion Trails are most visible from:

- *The immediate vicinity (<1000m) contained within Shadow Basin and mid-Station Bowl.*
- *The upper faces and ridgelines of East Rastus Burn, encompassing Scarper Run in the North through Upper Sugar Basin to the ridgeline of Doolans Saddle in the South East.*

Views to the proposed ski trail earthworks and snowmaking will be obscured from lower lying areas within the Ski Area Zone by the steep terrain above the base facilities.

Visual effects of this development increase with elevation and are mostly confined to the north-eastern quadrant of the Ski Area Sub Zone within the Rastus Burn catchment.

The cirques ridges of Shadow Basin obscure almost all views from the North-West through South-East.

4.2.1.2 OUTSIDE THE SKI AREA SUB ZONE (SEE APPENDICES: SHEET 3)

The proposed Top Station platform, Calypso extension and Cushion Ski Trails are most visible from:

- *The elevated mountain ridges, saddles and spurs adjacent to the Ski Area Sub-Zone, being primarily the Doolans Saddle and an area known as Helicopter Ridge, Upper Shadow Basin in an area known as the Highline. These locations fall within a 2500m radius from the more prominent top station development and are within the Rastus Burn Catchment.*

- An un-named 2000m Peak south of Ben Cruachan that separates the upper Doolans and Camp Creek Catchments some 4km distant.
- A wedge shaped section of the Whakatipu Basin, encompassing the lower slopes of Morven Hill (7km distant) Lake Hayes through Morven Ferry and Arrow Junction (8-10km).
- Malaghan's Road, Eastern Speargrass Flat, Mooney Road, Arrowtown, Hogans Gully Road, Glencoe Road, and the Crown Terrace (10-15km distant).
- Coronet Peak through Brow Peak reserve lands to Cardrona, Mt Sale and Crown peak (>15km distant).

4.2.2 CHAIRLIFT AND STATIONS

4.2.2.1 WITHIN THE SKI AREA SUB ZONE (SEE APPENDICES: SHEET 4)

The proposed new Chairlift and Top Station are most visible from:

- The immediate vicinity (<1000m) above the Base Facilities, within Shadow Basin and mid-Station Bowl.
- The upper and lower faces and ridgelines of East Rastus Burn, encompassing Scarper Run in the North through Sugar Bowl, Alta, and Curvey basin to Wye Creek Saddle in the South. Views from the South East quadrant will be more confined the top station and adjoining lift towers only, the lower lift towers and bottom station will be more visible from the lower mountain and North East quadrant.

The Top station and associated ski trail infrastructure will be mostly obscured by terrain from the base and lower lying areas within the ski area zone. Visual effects of this development increase with elevation.

4.2.2.2 OUTSIDE THE SKI AREA SUB ZONE (SEE APPENDICES: SHEET 5)

The proposed new Chairlift and Top Station are most visible from:

- The elevated mountain ridges, saddles and spurs adjacent to the Ski Area Sub-Zone, being primarily the Doolans Saddle and an area known as Helicopter Ridge, Upper Shadow Basin in an area known as the Highline, from higher parts (above 2100masl) of the Lake Alta cirque and the Remarkables summits (Single and Double Cone peaks). These locations fall within a 2500m radius from the more prominent top station development and are within the Rastus Burn Catchment.
- An un-named 2000m Peak south of Ben Cruachan that separates the upper Doolans and Camp Creek Catchments some 4km distant.

- A wedge shaped section of the Whakatipu Basin, encompassing the lower slopes of Morven Hill (7km distant) Threepwood, through Lake Hayes, Morven Ferry and Arrow Junction (8-10km)
- Malaghan's Road, Eastern Speargrass Flat, Mooney Road, Arrowtown, Hogans Gully Road, Glencoe Road , and the Crown Terrace (10-15km distant).
- Coronet Peak through Brow Peak reserve lands to Cardrona, Mt Sale and Crown peak (>15km distant).
- There is also small view window of the top station and associated earthworks from the South Ben Lomond ridge above 1400masl

4.2.3 BASE STATION AND PLATFORM

4.2.3.1 WITHIN THE SKI AREA SUB ZONE (SEE APPENDICES: SHEET 6)

The New Base Station infrastructure is most visible from:

- The base building and learners area.
- Slopes directly West and above the base facilities including ski runs 'Front Face', 'Waterfall' and 'Valley Floor'.
- The lower slopes of 'Scarper Run' through 'Lower Gallery'
- Curvey Basin Lift through to land adjoining Wye Creek saddle and faces below the ridge extending to the North East to an area known as Helicopter Ridge.
- Alta Lift and adjoining ski runs including the skifield base and learners area

The base station infrastructure is obscured by intervening terrain from lower Rastus Burn, Homeward Run and flatter areas within the higher cirques of Sugar, Alta and Shadow Basins.

4.2.3.2 OUTSIDE THE SKI AREA SUB ZONE (SEE APPENDICES: SHEET 7)

The New Base Station infrastructure is most visible from:

- The elevated mountain ridges, saddles and spurs adjacent to the Ski Area Sub-Zone, being primarily the Doolans Saddle and an area known as Helicopter Ridge. These locations fall within a 2000m radius from the base station development and are within the Rastus Burn Catchment.
- A small 1km section of Malaghan's Road, (12km distant).
- Coronet Peak through Bush Creek Saddle and Brow Peak reserve lands (>15km distant)

4.2.4 VISUAL EFFECTS SUMMARY

The Remarkables Ski Area Sub-Zone is situated within a landscape where visual effects are well contained by the surrounding mountains. To date views of the proposed skifield infrastructure from outside the ski area subzone are mainly limited to adjoining areas within the Rastus Burn Catchment.

The replacement Shadow Basin chairlift proposal will have the following effects.

- The top station of the new Shadow Basin Chairlift and adjoining trail works will be visible from an un-named 2000m Peak south of Ben Cruachan (some 4km east) within the Remarkables Conservation Area. This effect is considered Low and will have a minor effect on the remote and backcountry character from this location.
- From more distant viewpoints within the Whakatipu Basin, the upper mountain earthworks of the proposed Calypso extension and Cushion ski trails, and to a lesser degree the new 4WD access trail, top station and adjoining lift towers will be visible but fairly 'difficult to see'.
- Both snow conditions and lighting conditions will effect visibility. During mid-summer and mid-winter when there is uniform cover of either snow or rock the visible parts of the development (chairlift and trails) will be barely legible.
- During shoulder seasons where intermittent snow could accumulate in more sheltered pockets of the cut batters and be slower to melt, the visual effects of these modifications could be amplified and result in an un-natural and temporary adverse effect on visual amenity.
- During periods of reduced snow cover and when snowmaking is in operation the visual impact of skifield operations will be increased. Gentle transitions to cut/fill batters are recommended where possible to manage this and reduce unnatural variations in snow accumulation and melt.
- In certain light conditions such as early morning or evening, the upper chairlift, top Station and upper trails are likely to be more visible from outside the Ski Area Sub-Zone.
- Reflectivity will also be a factor at times highlighting the presence of structures on the high south ridge.
- The proposed Shadow Basin replacement chairlift and associated structures and upper formed trails will present new and visible signs of Ski Area Infrastructure from outside the Remarkables Ski Area Subzone and is located on a high and prominent ridge (visible from areas identified in 4.2.3.2). With the viewing distance ranging from 7-15km the visual effects are lessened considerably. The effects rating for these long range views from outside the Ski Area Sub Zone overall is rated as Low and not adverse primarily due to the distance viewed.

4.3 LANDSCAPE & VISUAL EFFECTS RATING SUMMARY

The Seven-Point scale (refer Section 4) has been used to assess the extent of landscape and visual effects from the proposed Shadow Basin chairlift replacement. The ratings

have been applied to both the landscape and visual effects for within the ski area sub zone and to effects outside the ski area sub zone.

<i>Effects within the ski area sub zone</i>	<i>Temporary Effects – Construction (with mitigation implemented)</i>	<i>Permanent Effects – Operations (with mitigation implemented)</i>
Physical Landscape Effects (site enabling works, project formation works, finishing works)	Moderate	Low-Moderate
Effects on Landscape/Natural Character Values	Moderate	Low/Moderate
Effects on Visual Amenity	Moderate-Low	Low

<i>Effects outside the ski area sub zone</i>	<i>Temporary Effects – Construction (with mitigation implemented)</i>	<i>Permanent Effects – Operation (with mitigation implemented)</i>
Physical Landscape Effects (site enabling works, project formation works, finishing works)	N/A	N/A
Effects on Landscape/Natural Character Values	Moderate	Low-Moderate
Effects on Visual Amenity	Low-Moderate	Low

4.4 EVALUATION

The overall summary of landscape and visual effects for the Shadow Basin Lift Replacement works is as follows:

For Effects within the Ski Area Sub-Zone the Effects Rating is Low-Moderate. There will be some adverse effects but within the context of the Ski Area Sub-zone is acceptable.

For Effects outside the Ski Area Sub-Zone the Effects Rating is Low. This equates to low adverse effects.

The types of works proposed are generally anticipated within in the Ski Area Sub-Zone. There is an expectation of continued modification and expansion of the facilities within

the Ski Area Sub- Zone so long as these works are undertaken in a manner which does not result in significant adverse effects on the environment. Visitors to the Ski Area Sub-Zone do not expect a pristine, unmodified environment.

4.5 STATUTORY PROVISIONS

Council's assessment matters seek to retain, protect and enhance the landscape values within these sub-zones with particular regard to natural character.

In terms of the Queenstown Lakes District Plan (QLDC) my understanding is that both the Operative District Plan (ODP) and Proposed District Plan (PDP) are applicable but that the PDP has greater weight.

The following provisions of the PDP are considered relevant to landscape matters.

A Controlled Activity Consent pursuant to Rule 21.12.2 whereby the construction of any new building in the Ski Area Sub-Zone requires resource consent with control exercised in respect of location, external appearance and size, associated earthworks, access and landscaping, provision of water supply, sewage treatment and disposal electricity and communication services (where necessary) and lighting.

Comment:

Buildings include the Top and Bottom Station structures, the operator huts and the storage building for chairs located alongside the Bottom Station. The Station structures are consistent with the Curvey Basin stations and will be coloured Ironsand. The small operators huts sit alongside the base and top station structure. They are expected part of the Ski tow operations. They will be seen as part of the ski tow infrastructure and in this context will have a less than minor effect on landscape character and values.

The storage building is located alongside the base station and in this context can be absorbed and will have less than minor effect on landscape character and values. Both the operator huts and the storage building will be painted Resene 'Ironsand'.

A Controlled Activity Consent pursuant to Rule 21.12.3 whereby the construction of a passenger lift system in the Ski Area Sub-Zone requires consent with control exercised in respect of the extent to which;

the passenger lift system breaks the line and form of the landscape with special regard to skylines, ridges, hills and prominent slopes;

Comment:

The passenger lift system includes the top and bottom base stations as well as lift towers and infrastructure. The upper lift line and top station will impact on the line and form of the landscape to the extent that the lift line encroaches onto the prominent upper slope on the south side of Shadow Basin which is visible from the Arrowtown end of the Whakatipu Basin. The upper liftline and top station will not break the skyline but will be backdropped by the upper cirque basin headwall and cones and ridges. The scale of the facilities is small in relation to the scale of the basin as a whole and will be absorbed by the scale of the receiving environment. From outside the Ski Area subzone the upper chair lift and top station and upper trail works and access road will be visible from parts of the Whakatipu Basin but will be difficult to see from all locations identified in this assessment.

The bottom station will be absorbed within the context of the base facilities area and will not break the line and form, skyline, ridges hills and prominent slopes

whether the materials and colour to be used are consistent with the rural landscape of which passenger lift system will form a part;

Comment:

The tower structures and station cladding is of the colour "Ironsand grey" which has an LRV of 9%. The upper structure supporting the chairlift pulleys and the chairlifts will be unpainted galvanised iron as per the Sugar Bowl Lift. The galvanised will dull over time.

21.1 Zone Purpose - Ski Area Sub-Zones are located within the Rural Zone. These Sub-Zones recognise the contribution tourism infrastructure makes to the economic and recreational values of the District. The purpose of the Ski Area Sub-Zones is to enable the continued development of Ski Areas as year round destinations for ski area, tourism and recreational activities within the identified Sub-Zones where the effects of the development are cumulatively minor.

Comment:

In the context of a designated Ski Area Sub Zone and the modification that has occurred within the Sub-Zone, the landscape and visual effects of the Shadow Basin chairlift replacement and associated work are cumulatively minor.

21.2.6 Objective - The future growth, development and consolidation of Ski Areas Activities within identified Ski Area Sub-Zones, is provided for, while adverse effects on the environment are avoided, remedied or mitigated.

Comment:

Every effort has been made to avoid, remedy or mitigate adverse effects on the environment.

21.2.6.2 Objective - Control the visual impact of roads, buildings and infrastructure associated with Ski Area Activities.

Comment:

The visual impact of roads, buildings and infrastructure associated with the proposal are controlled. There will be moderate impacts on landscape and natural character within the Ski area Sub Zone in particular within Shadow Basin and Low effects on visual amenity values within the Zone.

Landscape and visual effects of the proposal outside the Ski Area Sub-Zone are Low.

Policy 21.2.10.2 - To manage the adverse effects of commercial recreation activities so as not to degrade rural quality or character or visual amenities and landscape values.

Comment:

There will inevitably be effects from the development on landscape character and landscape values. However the effects have been managed and mitigated to minimise effects as much as possible within the context of a Ski Area Sub Zone. The overall effects rating for landscape and visual for the development ranges from moderate to low.

5 CONCLUSION

1. The proposal seeks to replace the existing Shadow Basin chairlift with a new chairlift which will extend from near the base facility to a new Top Station. Two

new ski trails, 4Wd access road and snow making infrastructure are also proposed which will require the removal of some indigenous vegetation and rock outcrops.

2. The proposal will present new and visible signs of ski area infrastructure (from outside the Ski Area Sub-Zone) on a prominent ridge of the Kawarau/ Remarkables Range. Some of the proposed chairlift and trail works will be visible from a portion of the Whakatipu Basin and limited locations within the Remarkables Conservation Area. From all locations outside of the Ski Area Sub-Zone, the 4WD access track, trails, towers and the top station will be legible to varying extents depending on distance viewed, snow conditions and lighting.
3. The proposed upper trail works will be visible and particularly so during intermittent snow cover and in certain light conditions. The proposed earthworks will result in some adverse effects on the natural character of Shadow Basin. It is expected these new trails will create a permanent and cumulative effect to the landscape and visual amenity of the Rastus Burn Basin.
4. The overall summary of landscape and visual effects is;
 - (a) within the Ski Area Sub-Zone, Low-Moderate. There will be some adverse effects. Within the context of the Ski Area Sub-zone this is considered acceptable.
 - (b) landscape and visual effects outside the Ski Area Sub-Zone is Low. This equates to low adverse effects.
5. The relevant landscape provisions of Queenstown Lakes District Plan relating to the Ski Area Sub Zone have been met.
6. This type of infrastructure is expected in the Ski Area Sub-Zone. Importantly the natural character of the wider alpine environment will remain dominant.

Philip Blakely

Registered Landscape Architect

Blakely Wallace Associates

March 2022



Appendix 1 Photos



Corner of Manse Road and Malaghan Road (Viewing distance 13.5km)



Corner of Hunter Road & Malaghan Road (Viewing distance 12.5km)



Corner of Hunter Road and Speargrass Flat Road (Viewing distance 11.5km approx.)



Corner of Speargrass Flat Road and Slope Hill Road (Viewing Distance 11.3km)



View from Arrowtown-Lake Hayes Road near Akarua Wines and Kitchen (10.8km)



Arrowtown-Lake Hayes Road opposite North end Lake Hayes (Viewing distance 9.8km)



Arrowtown-Lake Hayes Road



Arrowtown-Lake Hayes Road. Not visible in summer but likely to be visible in winter



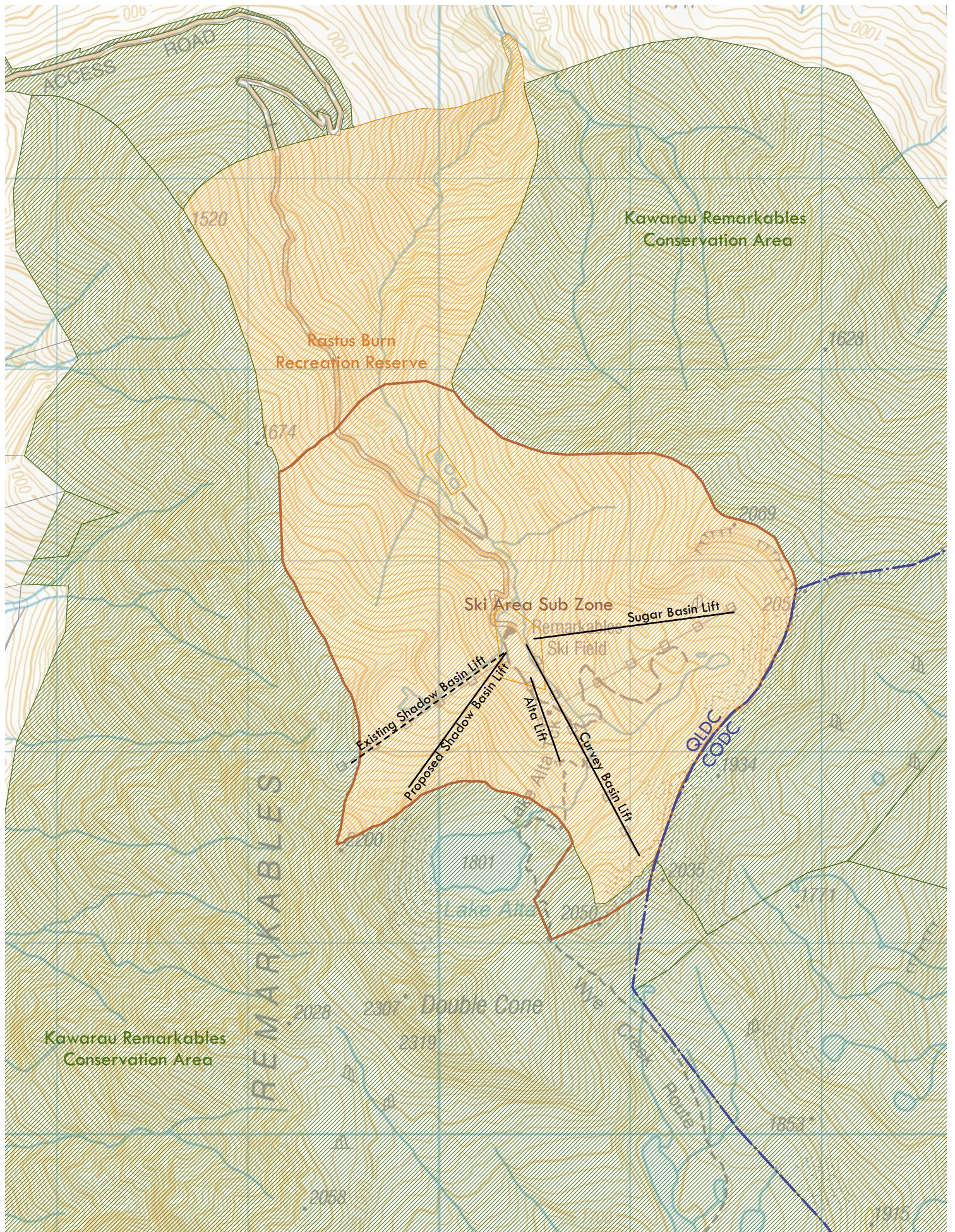
Arrowtown-Lake Hayes Road Amisfield Corner (viewing distance 8.3km)

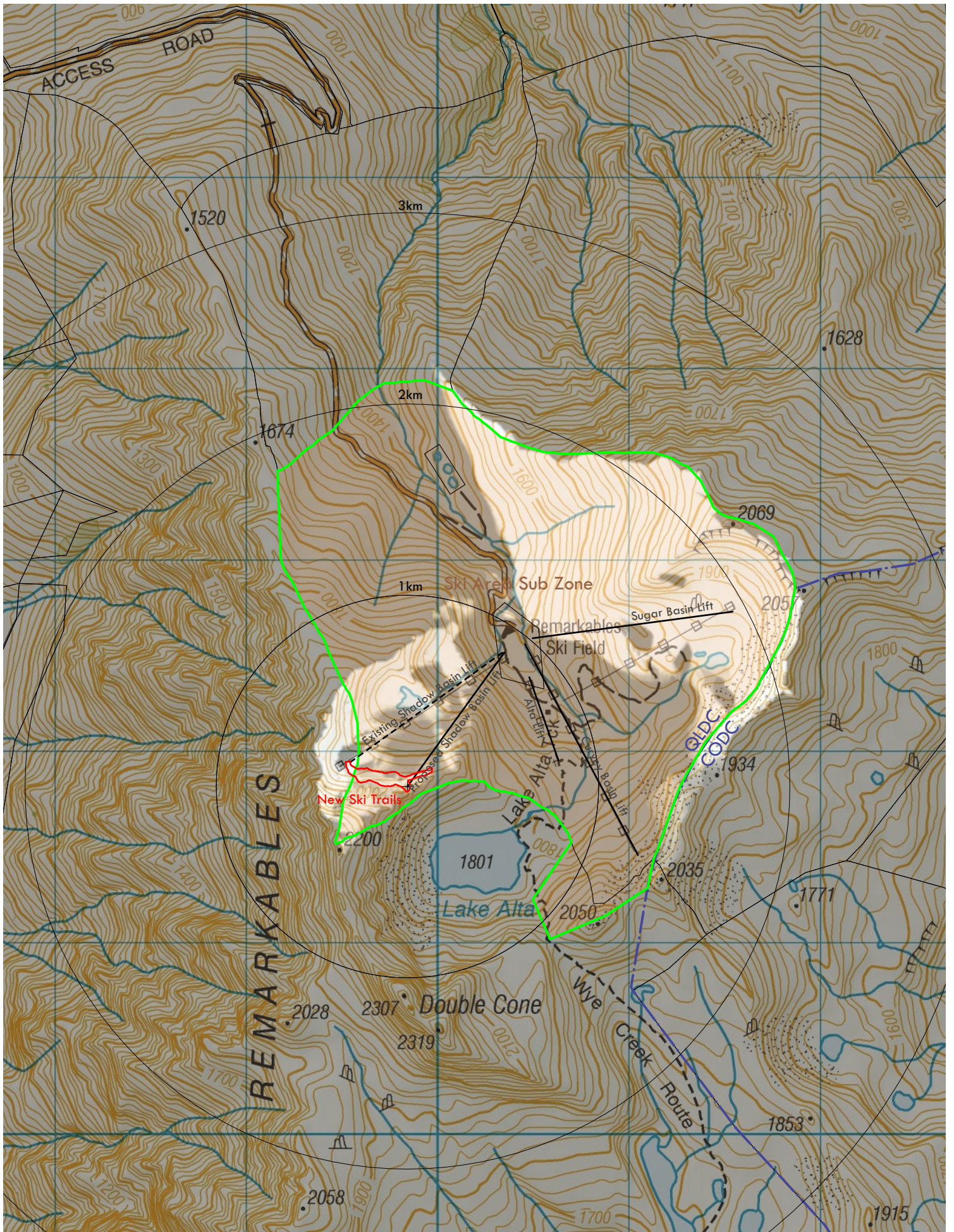


Intersection Arrowtown Lake Hayes Road, Malaghan Road and McDonnell Road (at entrance to Arrowtown)
Viewing distance 13km.



Crown Terrace from top of Tobins Track (Viewing Distance 12.5km)



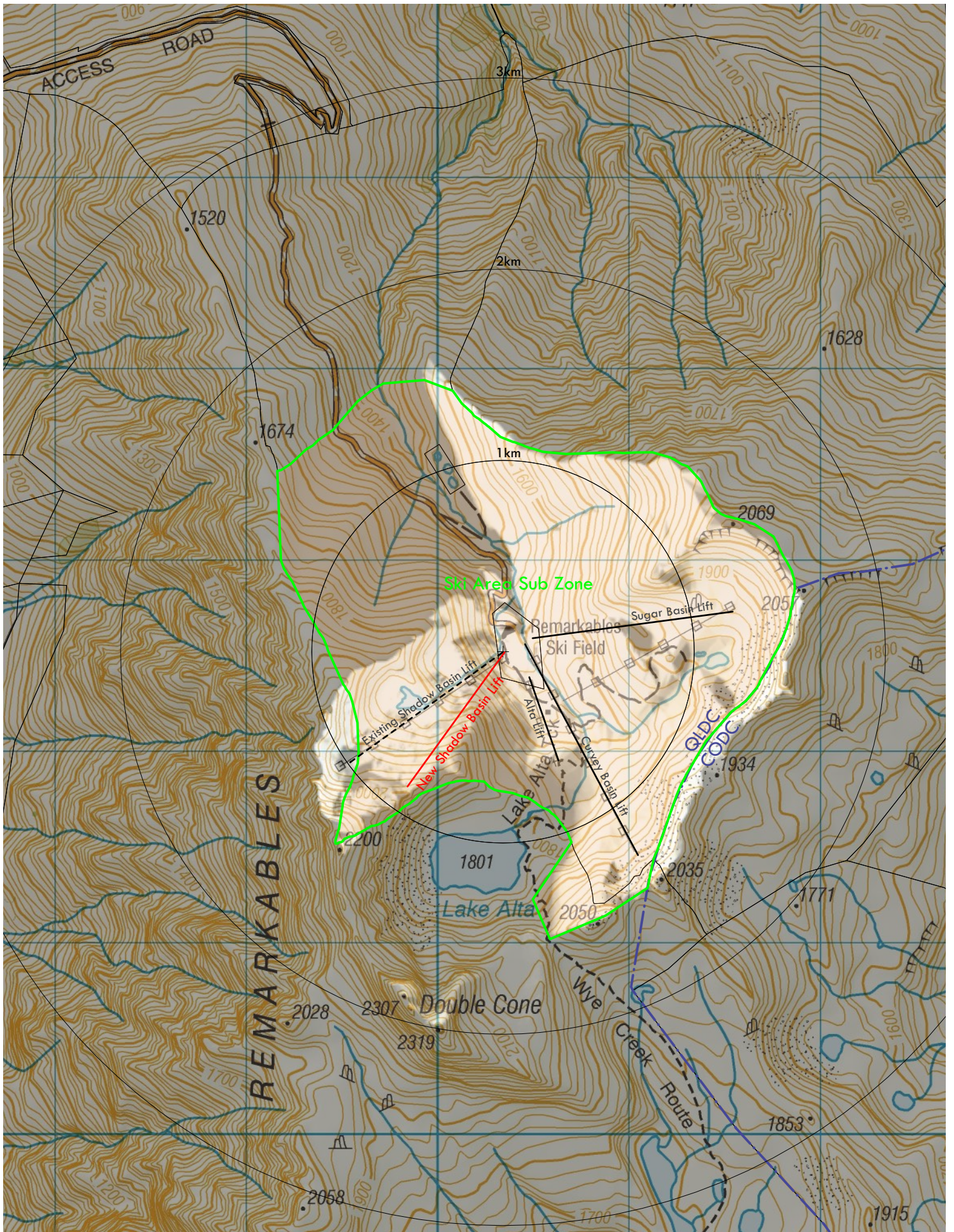


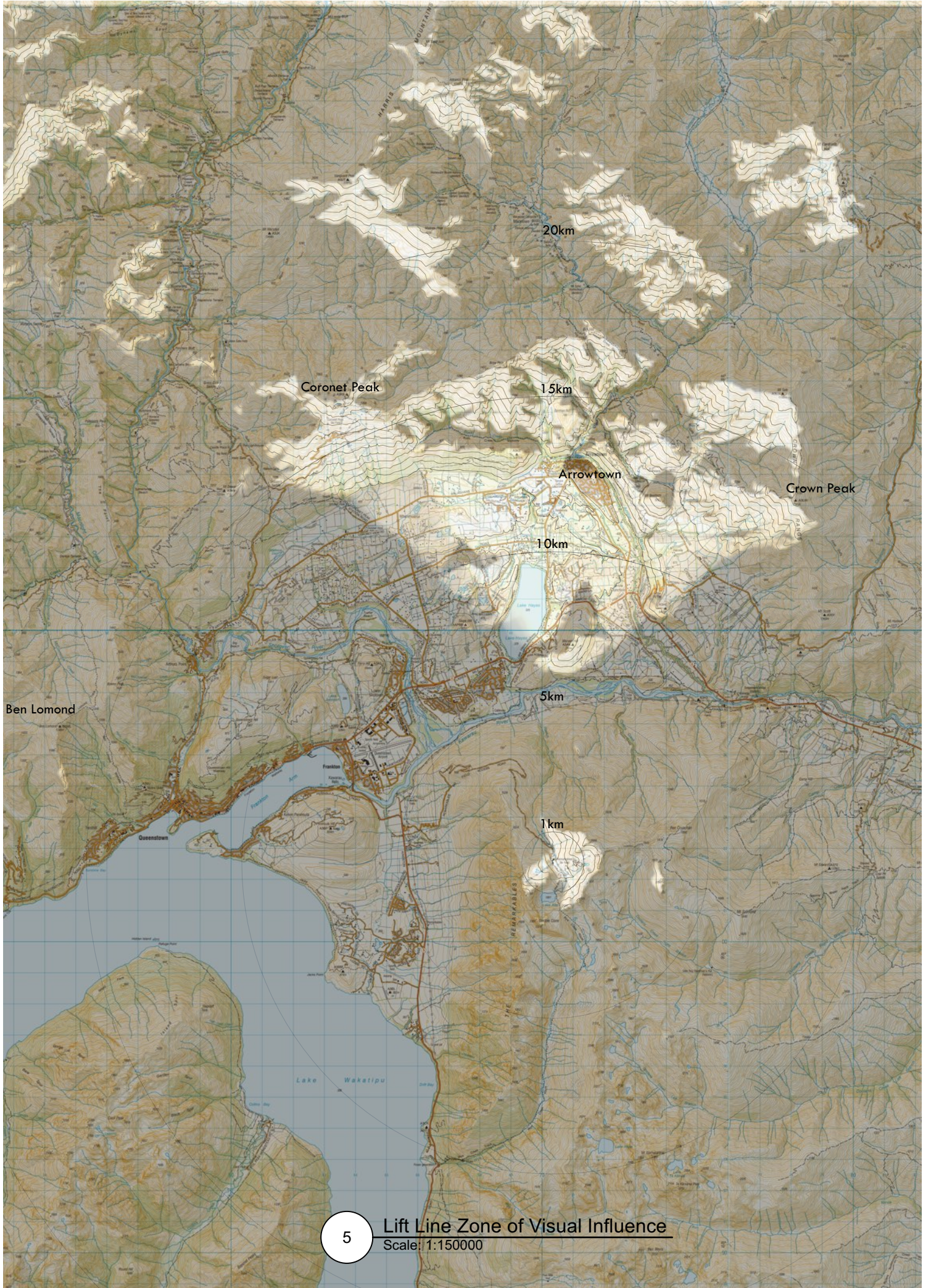
2 New Ski Trails Zone of Visual Influence
Scale: 1:25000



3

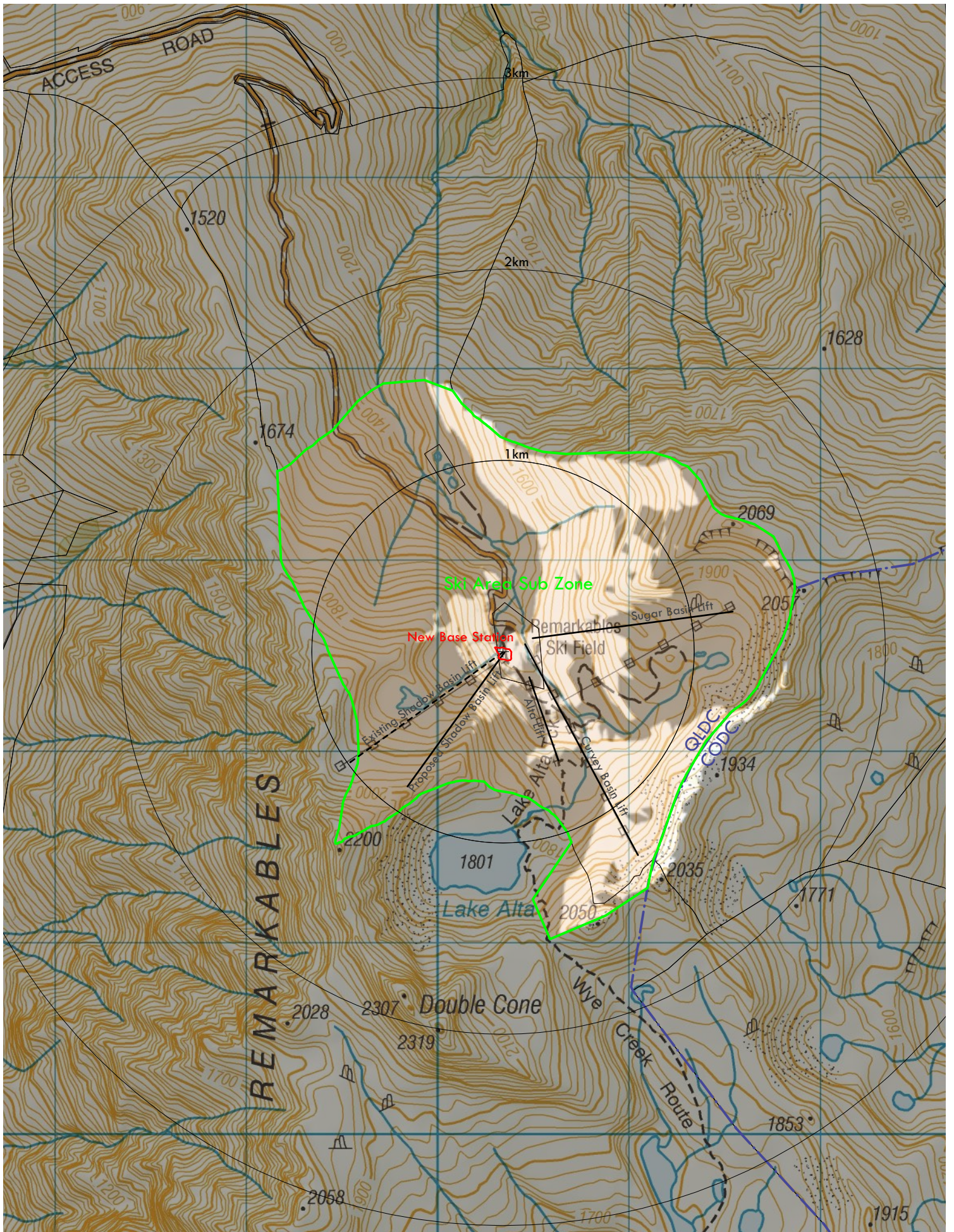
New Ski Trails Zone of Visual Influence
Scale: 1:150000

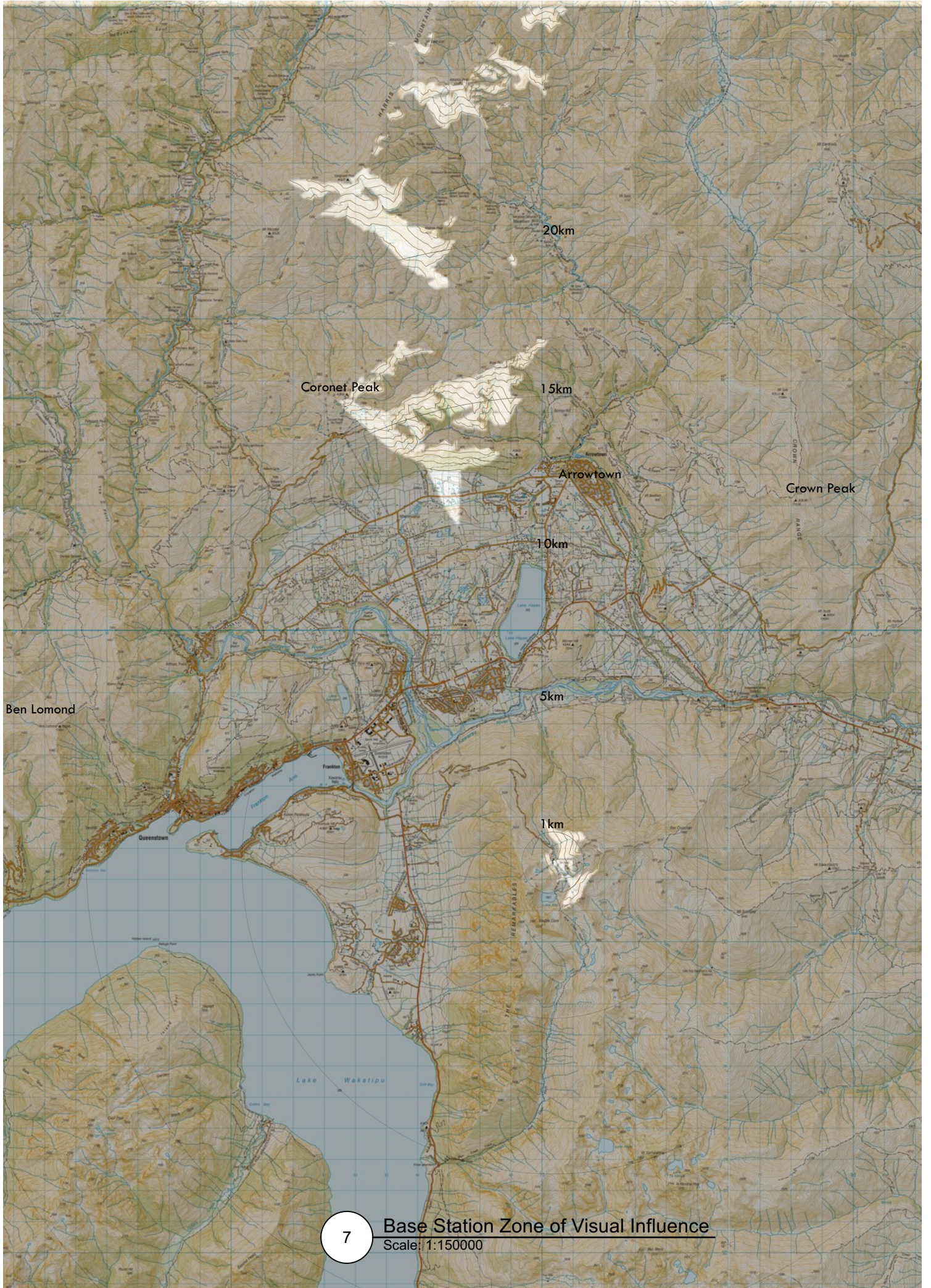




5

Lift Line Zone of Visual Influence
Scale: 1:150000





7

Base Station Zone of Visual Influence
Scale: 1:150000