



# Appendix

06

## Powerhouse Fast-track Application

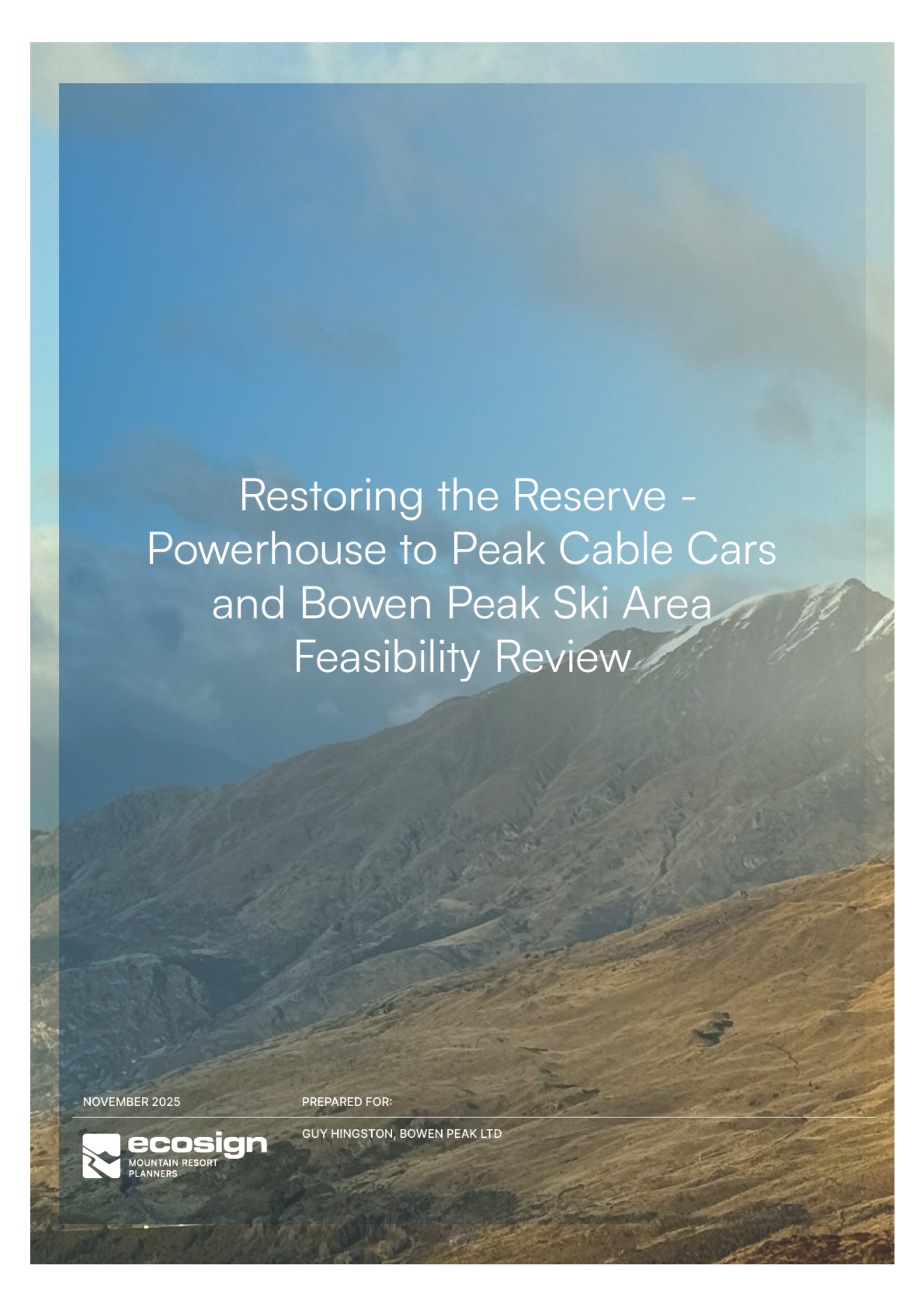
Ski Area Feasibility Review



Prepared by Ecosign Mountain Resort Planners Ltd, Canada

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Vice President

15 December 2025



# Restoring the Reserve - Powerhouse to Peak Cable Cars and Bowen Peak Ski Area Feasibility Review

NOVEMBER 2025

PREPARED FOR:



GUY HINGSTON, BOWEN PEAK LTD



## 1.0 Executive Summary

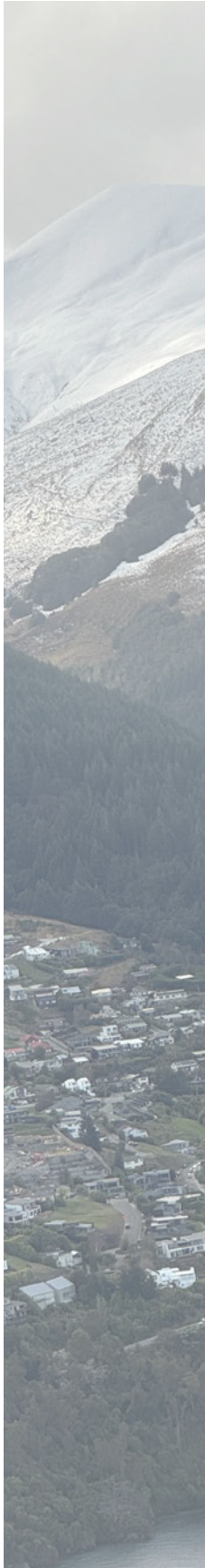
Ecosign Mountain Resort Planners Ltd of Whistler, British Columbia, Canada was engaged by Bowen Peak Ltd to prepare an independent, high-level desktop feasibility review of the “Restoring the Reserve – Powerhouse to Peak Cable Cars and Bowen Peak Ski Area” project. This report responds specifically to the New Zealand Government’s Fast-track Stage 1 requirement for a high-level assessment of the feasibility and viability of the proposed ski area and associated mountain tourism components.

This desktop feasibility review forms one of the specialist inputs prepared for the Stage 1 Fast-track referral application. It provides a consolidated assessment of the ropeway concept, upper-mountain terrain suitability, and year-round recreation potential to support the broader application material assembled by the proponent.

This review is based on materials supplied by the proponent, publicly available topographic and GIS information, and Ecosign’s 50 years of professional experience in mountain resort, ski area, and aerial ropeway planning worldwide. Although we have not undertaken a site inspection of the project area for this Stage 1 desktop review, our firm is well acquainted with the Queenstown region and has undertaken project work in the area on numerous occasions. No engineering design, environmental analysis, cultural assessment, or financial modeling has been undertaken at this preliminary stage.

As part of this review, Ecosign has also considered the concerns raised in the Hon. Penny Simmonds’ letter dated 22 April 2025 and the Section 28 Notice of Decisions dated 26 August 2025. This report is intended to address those concerns by providing an independent, high-level assessment of the project’s overall feasibility and the viability of the proposed seasonal ski field within the wider year-round tourism concept.

Ecosign recognises that the Bowen Peak area has long-standing cultural significance to mana whenua and that Māori perspectives will form an essential part of the broader project evaluation. Ecosign has not undertaken cultural assessment as part of this Stage 1 desktop review, and we rely on the proponent and their appointed Māori advisors to lead engagement with the relevant iwi and hapū. Ecosign’s findings therefore relate only to technical feasibility and high-level tourism potential, and we acknowledge that cultural input may further inform, refine, or reshape aspects of the project as it advances.



### Key Initial Findings:

- We are confident that the general alignment of the proposed three-stage ropeway system from the One Mile Powerhouse reserve to Bowen Peak is logical and technically feasible, with final line equipment selection and tower placement to be resolved through detailed engineering in Stage 2.
- Bowen Peak provides exceptional panoramic views and strong potential for year-round sightseeing, which is the primary driver of project viability.
- High-quality Mountain biking trails are feasible between all three ropeway stages, with final trail layouts and grades to be resolved during Stage 2.
- Approximately 80 hectares of skiable terrain in the upper basin appear viable for seasonal skiing in most winter seasons using natural snowfall, based on photographic and anecdotal evidence.
- Skiing is supplementary to the project's year-round tourism model. The project remains viable even in low-snow winters when skiing might not operate.
- A skiway route which would allow skiers to reach the Saddle Station from Bowen Peak is feasible and can be designed to minimize landscape visibility.
- High-level ONL review indicates major structures are located in areas that are not visible from most of Queenstown, though a full ONL assessment will be required in Stage 2.
- Gondola systems and terminal buildings will be designed to provide full accessibility, allowing people of all abilities to reach high-alpine viewpoints not currently accessible.
- This Stage 1 desktop review does not include cultural assessment; engagement with mana whenua will be led by the proponent and may further inform the project during subsequent stages.

Based on this Stage 1 desktop review, Ecosign finds that the proposed concept is feasible at a high level from both a technical perspective and a year-round tourism and visitor-market standpoint, and is suitable for more detailed analysis in Stage 2, where comprehensive environmental, cultural, engineering, and design studies will be required.



## 2.0 Ecosign Background and Experience

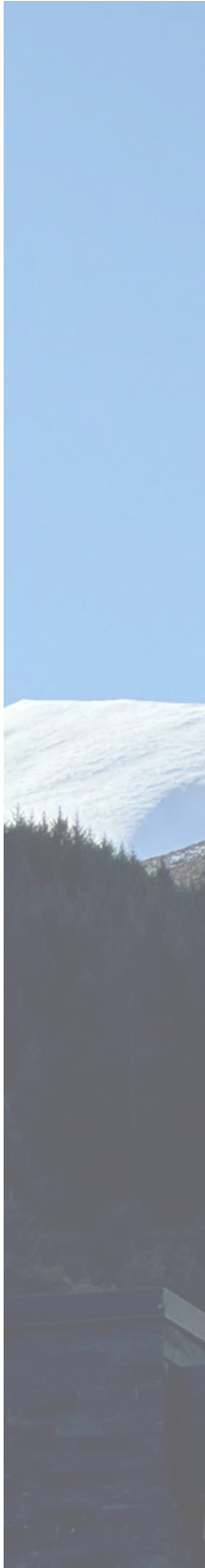
Ecosign Mountain Resort Planners Ltd., founded in 1975, is a global leader in mountain resort planning, aerial ropeway alignment, and ski area design. Over 50 years, Ecosign has planned more than 1,000 resorts and ropeway projects across 46 countries, covering all major climates, terrains, and operational models.

### Relevant International Ropeway And Sightseeing Project Experience

Ecosign has played major roles in several globally recognized sightseeing gondolas and high-elevation ropeway systems, including:

- **Whistler Blackcomb Peak 2 Peak Gondola (Canada)**
  - International icon of long-span sightseeing ropeways; extensive planning involvement. Opened 2008
- **Icy Strait Point Gondolas (Alaska, USA)**
  - Two large gondola systems serving a cruise tourism market; similar year-round tourism dynamics. Opened 2020
- **Palm Springs Aerial Tramway (California, USA)**
  - Major high-elevation tramway accessing spectacular alpine viewing platforms. Opened 1963. Ecosign provided Master Planning services in 1997 for the significantly renovated Tram system and terminal building upgrades which was re-opened in 2000.
- **Grouse Mountain / Blue Grouse Gondola (Vancouver, Canada)**
  - New resort access and sightseeing gondola serving a mixed winter/summer tourism market. Opened 2024.

These and numerous other projects featured on our website at [www.ecosign.com](http://www.ecosign.com) demonstrate Ecosign's unique qualification to provide a credible, independent high-level assessment of the Bowen Peak proposal.



## 3.0 Project Summary

The Bowen Peak proposal is a multi-component project incorporating transport, tourism, recreation, conservation, and community-access elements. Ecosign recognises that the overall vision extends beyond the technical scope of this Stage 1 feasibility review and is described in detail on the proponent's website and associated application documents.

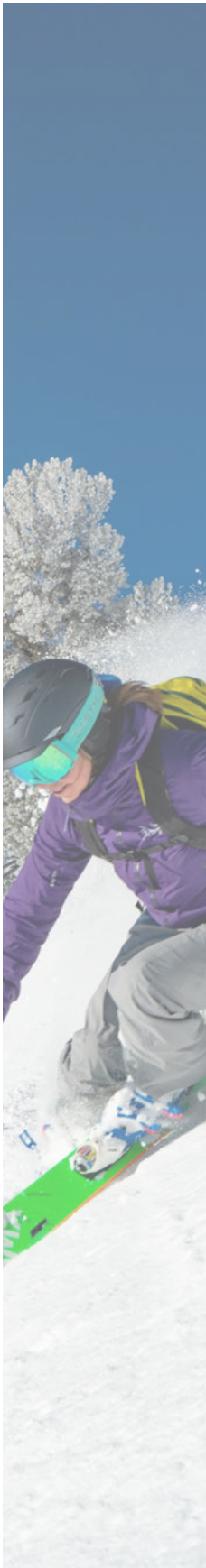
### Cultural Acknowledgment

Ecosign acknowledges the cultural significance of the whenua and recognizes that engagement with mana whenua is an essential component of the wider Bowen Peak project. Cultural consultation and partnership will be led by the proponent and their appointed Māori advisors. Ecosign has not undertaken any cultural assessment as part of this Stage 1 desktop review, and therefore our findings do not incorporate cultural or mātauranga Māori considerations. Our review is limited to technical feasibility relating to terrain and ropeway planning, as well as high-level observations on year-round tourism potential and the general feasibility of conceptual ski field configurations. Ecosign will coordinate with the proponent's cultural specialists during Stage 2 to ensure that technical planning appropriately integrates cultural, environmental, and ONL considerations.

### Project Summary

Based on information provided by the proponent, the Bowen Peak project consists of the following major components:

1. Aerial Ropeway Network – A multi-stage ropeway system providing year-round public access from Queenstown to Bowen Peak for sightseeing, recreation, and transport.
2. Station Buildings and Ancillary Infrastructure – Construction of ropeway terminals, viewing decks, and operational support facilities integrated into the alpine setting.
3. Residential Development – Fernhill Heights – A proposed residential area located within the lower portion of the project site.
4. Predator-Free Sanctuaries – Establishment and long-term management of predator-controlled conservation areas to support ecological restoration.
5. Re-opening of the One Mile Creek Walkway – Restoration of a public walking route to improve recreational access and trail connectivity.



## 4.0 Project Understanding

The components of the Bowen Peak project that are most relevant to this Stage 1 desktop feasibility review are those directly associated with the mountain-access ropeway system, the mountaintop and mid-mountain station areas, and the range of year-round recreation opportunities enabled by this infrastructure. These elements form the core physical framework for visitor access and mountain use, and therefore provide the basis for evaluating the site's terrain, operational feasibility, and potential seasonal activities.

### Ropeway Access

The proposal includes a three-stage ropeway connecting:

- Powerhouse Reserve Station (lower terminal)
- Fernhill Heights Station
- Saddle Station (mid-mountain operations and recreation hub)
- Peak Station and viewing platform (upper terminal)

The stepped alignment provides access to distinct recreation zones and reduces potential ONL visibility compared with a single direct route. Ropeway technology options appropriate for Stage 2 analysis include modern monocable gondolas, Funifor systems, 3S tricable gondolas, and Tri-Line systems.

### Year-Round Tourism

Year-round sightseeing is the primary operational component of the proposal, culminating at the Peak viewing platform. High-elevation panoramic views and weather-protected ropeway access are consistent with international precedents where sightseeing gondolas form the core of sustainable visitor demand in alpine environments.

### Mountain Biking

The terrain between ropeway stages provides natural opportunities for mountain-biking access. A long descending route (over 1,300 m of vertical relief) from Bowen Peak toward the lower stations is conceptually feasible, with final alignment to be confirmed during Stage 2 detailed design.

### Seasonal Skiing

The upper-mountain terrain includes approximately 80 hectares of natural-snow skiable area suitable for seasonal winter operations. Several configuration models are possible, ranging from low-infrastructure lift-assisted ski touring to a more developed alpine ski field supported by a return-cycle lift in later years. Skiing represents a supplementary, weather-dependent activity and is not essential to overall project viability.



## 5.0 Terrain Assessment

### General Topography and Ski Terrain Feasibility

A desktop review of proponent-supplied mapping, QLLC GIS, and aerial photography identifies three distinct terrain zones on Bowen Peak:

- **Peak (1,625–1,375 m)**  
Steep upper southern face forming an advanced-grade bowl, with the summit suited for panoramic sightseeing.
- **Sub-Peak / Southern Slopes (1,495–1,200 m):**  
Broad, consistent fall-line gradients appropriate for intermediate skiing.
- **Saddle Station Precinct (~1,300 m):**  
Gently sloping terrain suitable for a beginner learning zone and compact support facilities.

The western ridge and Saddle Station areas also provide gentle, logical corridors for year-round access and mountain biking routes, as the ridge descends more gradually than the steeper southern bowl. The western slopes proposed for ropeway terminals are largely screened from Queenstown by intervening landforms, reducing potential visual effects.

### Natural Snowfall

Based on photographic records and anecdotal evidence, reliable natural-snow conditions typically occur above 1,200m ASL, consistent with nearby Coronet Peak, which operates to 1,167 m ASL. Ecosign concludes that seasonal natural-snow skiing is feasible in typical winters, with the understanding that skiing is supplementary, and project viability does not depend on skiing or natural snow.



## 6.0 Ski Field Development Potential

The upper-mountain terrain at Bowen Peak can support three different general types of ski field configurations, each representing a different level of infrastructure investment, capacity, and operational character. The potential configurations are presented in order from the lowest level of impact to the highest, allowing the ski field component of the project to scale over time depending on demand, natural snowfall conditions, and regulatory direction. All three configurations would rely on natural snowfall, therefore a snowmaking system is not part of the proposal.

### Model 1 — Lift-Access Ski Touring (Minimal Infrastructure)

Model 1 provides a simple, low-impact ski field concept similar to the lift-accessed touring model used at the Sea to Sky Gondola in British Columbia. Experienced users access the upper-mountain terrain via the ropeway and undertake ski touring or freeride descents independently. Backcountry users would be responsible for their own safety and route finding and would return to the Saddle Station under their own power via traverse track or uphill climbing track. Guests with ski touring gear would **not** be permitted to upload on days when the New Zealand Avalanche Advisory (NZAA) rating for the region is deemed to be “High” or “Extreme”.

#### Key characteristics:

- No chairlifts or groomed pistes
- Minimal capital investment for the ski component
- Terrain remains natural

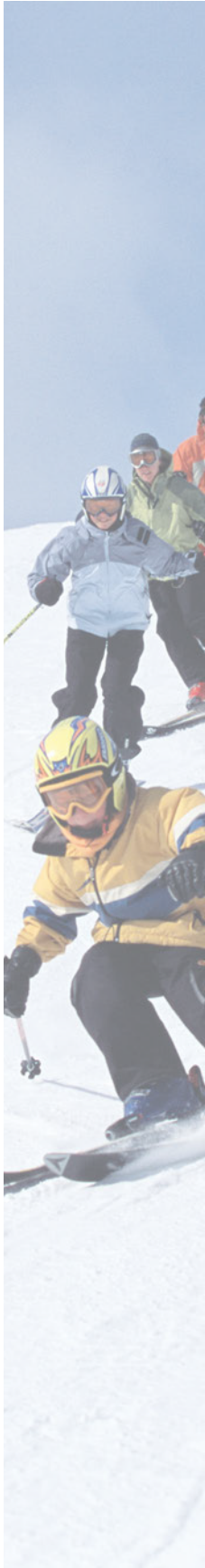
**Estimated capacity: ~250 backcountry users/day**

### Model 2 — Beginner Zone + Skiway + Ropeway Return Cycle

Model 2 introduces a more structured ski field experience while maintaining modest ski infrastructure. Skiers would return-cycle ski on the third section of the Ropeway system between Bowen Peak and the Saddle Stations

**Beginner Learning Zone:** The Saddle Station precinct supports a compact learn-to-ski zone with a magic carpet, restrooms, food service, and first aid.

**Skiway:** A returning 6m wide skiway, approximately 1 km long with a longitudinal gradient between 8-12% is constructed using balanced earthworks cut/fill method to connect the upper-mountain terrain to the Saddle is feasible with minimal ONL impact. A skiway is essentially a narrow roadway surface



with fencing/signage recommended for way finding in poor visibility, that allows skiers to safely traverse the fall line.

**Model 2 Metrics:**

- Lift-served vertical: ~320 m
- Piste development:- ~35% of 36 ha developed into ski pistes → ~12 ha groomable terrain
- Backcountry terrain: 44 ha

**Estimated capacity:**

- ~600 alpine skiers/day
- +100 lift-access backcountry users
- ≈ 700 skiers/day**

**Model 3 — Fully Developed Alpine Ski Field  
(Future Option)**

Model 3 represents a higher-capacity ski field configuration involving a dedicated chairlift serving the intermediate terrain on the southern slopes. This model would access the full ski field footprint and the entire 425 m of skiable vertical, offering a conventional lift-served experience.

**Unique characteristics:**

Provides consistent return-cycle skiing independent of the ropeway

Access to the full 80 ha ski terrain envelope

Supports the full 425 m vertical range

Most developed and highest-capacity configuration

**Estimated capacity: ≈ 1,250 skiers/day**, assuming typical piste development (~35% of total terrain).

Model 3 should be evaluated in Stage 2 based on detailed engineering and ONL considerations. The appropriateness of progressing to a fully developed Model 3 configuration may also be informed by operational experience gained during earlier project stages, including several seasons of real-world skier demand, natural snowfall conditions, and visitor-use patterns. This information would help determine whether additional ski lift infrastructure is warranted.



## 7.0 Year-Round Tourism & Mountain Biking

### Sightseeing Potential

Bowen Peak offers outstanding 360° views of the Wakatipu Basin, the Southern Alps, Lake Wakatipu, and surrounding ridgelines. This level of visual amenity is a well-established driver of tourism demand in alpine regions internationally.

Year-round sightseeing is the primary operational component of the project, with the Peak viewing platform providing a high-elevation destination that would be accessible in all seasons. The Queenstown Lakes District supports one of New Zealand's strongest tourism markets, with recent regional data indicating approximately 7–8 million cumulative visitor-days per year, reflecting sustained domestic and international demand. Similar high-elevation sightseeing gondolas around the world attract predictable visitation due to panoramic viewpoints and weather-protected ropeway access. In this context, the proposed Peak sightseeing experience would be a popular and complementary addition to Queenstown's tourism offering, expanding public access to dramatic alpine scenery that is not currently easy to reach. The proposed ropeway system would also provide a low-emission means of accessing the high country, reducing reliance on ground-based or aviation transport for visitors wishing to experience these views.

### Mountain Biking Opportunities

Desktop review indicates:

- MTB trails are feasible between all ropeway stages
- The terrain supports both descending flow trails and technical routes
- The proposed "Bowen Peak Downhill" concept is a credible long-vertical MTB experience

Final trail alignment, construction standards, drainage, and sustainability measures will be developed during Stage 2.

### Accessibility

A gondola system provides full accessibility for:

- Elderly visitors
- Visitors with mobility limitations
- People with disabilities
- Families with young children

The ropeway would enable people of all ages, backgrounds, and abilities — including mana whenua — to access the alpine environment, providing an equitable opportunity to experience the landscape for individuals who may not otherwise be able to reach Bowen Peak. Architectural design of terminals and the Peak viewing platform will ensure universal access, including barrier-free movement. This component is a **major** public benefit of the proposal.

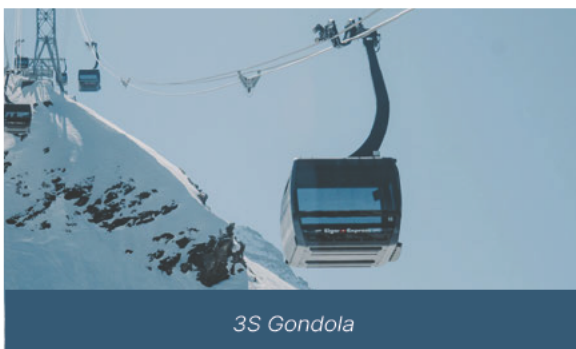
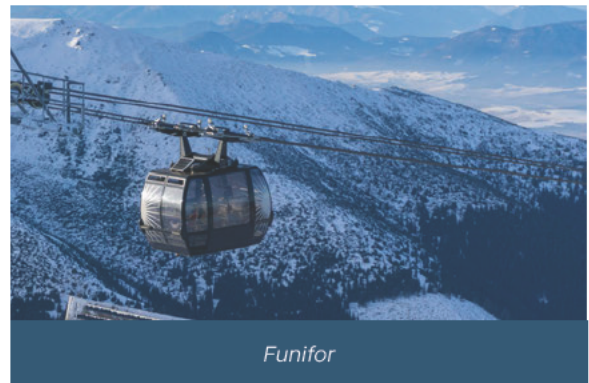
## 8.0 Ropeway System Feasibility

Modern ropeway technology offers multiple solutions capable of meeting the project objectives of long spans, minimal tower requirements, high accessibility, and reliable performance in exposed alpine conditions. The proponent's current concept consists of three sections: a 1.23 km gondola from Powerhouse Reserve to Fernhill Heights, a 3.41 km Funifor from Fernhill Heights to the Saddle Station, and a 0.90 km gondola from the Saddle to the Peak. This configuration is technically feasible and reflects a logical progression up the mountain, with station locations selected on suitable landforms that significantly reduce potential ONL visibility. The intermediate stations also create practical access points that support the proponent's year-round recreation objectives, including mountain biking routes, walking access, and integration with the wider restoration and predator-free sanctuary initiatives

Ropeway technologies suitable for further evaluation during Stage 2 include:

- Monocable gondola systems (MGD/MCGD) – efficient circulating systems with the potential to add ballast to improve wind performance
- Funifor – exceptional wind stability and operational redundancy with independent carrier operation
- 3S tricable gondola – high wind resilience, capacity, and long-free span capability
- Tri-Line systems – strong long-free span and wind performance

The optimal ropeway technology for each section will be further validated during Stage 2 engineering, where wind conditions, capacity requirements, and manufacturer considerations will be evaluated in detail. The current three-stage alignment and the proponent's chosen lift equipment provides a reasonable foundation for this next level of analysis.



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## 9.0 Outstanding Natural Landscape (ONL) - High Level Review

### Landscape Considerations

At a desktop review level:

- Major structures (Saddle Station, Peak Station) are located on the western face, which is not visible to most Queenstown residents due to the interceding landforms of Bob's Peak and Queenstown Hill.
- The proposed skiway on the southern face can be aligned and designed to be minimally perceptible from key public viewpoints.
- The project avoids the eastern slopes, where visibility and landscape sensitivity are higher.

The natural topography of Bowen Peak is generally smooth and free of major abrupt landforms, which allows skiing to occur using the existing undisturbed terrain. Only limited earthworks would be required to support Model 2 or Model 3—primarily for short skiway connections or minor terrain shaping. Under Model 1, no earthworks are proposed. Ecosign also recognizes that the Bowen Peak landscape holds cultural significance for mana whenua. ONL considerations will need to be integrated with cultural input from mana whenua during Stage 2 as part of the wider project evaluation led by the proponent.

These factors suggest the project may be developed in a manner that respects ONL constraints, subject to detailed Stage 2 analysis.

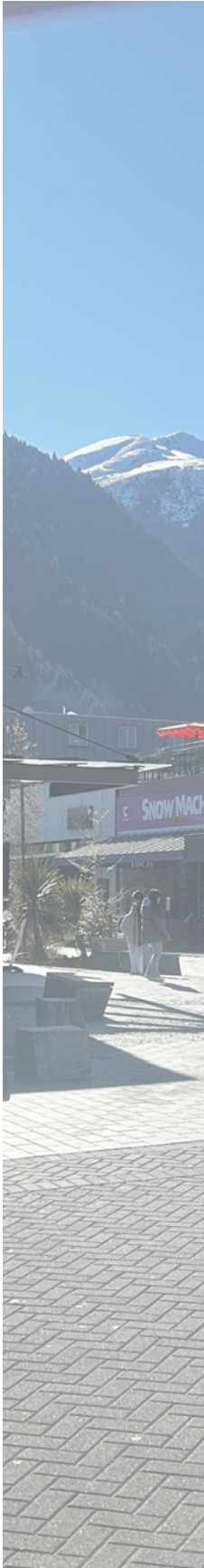
### Stage 2 Requirements

A full ONL and visual impact package will be required, including:

- View-shed modeling
- Architectural massing studies
- Landscape architecture input
- Colour/material selection
- Integration with night-sky / lighting controls
- Assessment from multiple public and private viewpoints
- Integration of cultural landscape and design input through engagement led by the proponent with mana whenua and their appointed cultural advisors.

### Ecological Considerations

A high-level ecological scoping assessment prepared by Restore NZ indicates that habitats of high ecological value are likely present within parts of the Bowen Peak Year-Round Tourism and Ski Field Proposal area, and that some ecological effects may be unavoidable pending detailed design. Sightseeing ropeway projects in other regions are often successfully designed to operate in harmony with sensitive ecological environments, providing confidence that appropriate solutions can be developed for Bowen Peak through thoughtful planning and collaborative design. Ecosign has not undertaken ecological assessment as part of this desktop review, and any ecological evaluation, effects assessment, or management planning will need to be led by specialist ecologists and mana whenua advisors during Stage 2 as part of the wider project development process.



## 10.0 Conclusions and Stage 2 Pathway

Based on Ecosign's high-level review:

- The "Restoring the Reserve – Powerhouse to Peak Cable Cars and Bowen Peak Ski Area" concept appears feasible and viable as a year-round mountain tourism project.
- Skiing is a supplementary and seasonal activity within the overall year-round tourism model and is not essential to project viability. The upper-mountain terrain provides a good mix of beginner, intermediate, and advanced skiing opportunities, offering appropriate variety for differing skill levels during seasons with sufficient natural snowfall.
- Terrain supports sightseeing, seasonal skiing, mountain biking, and accessible alpine experiences.
- High-level ONL assessment suggests impacts can be managed through design and siting, with detailed review required in Stage 2.

Cultural landscape and design considerations will need to be integrated during Stage 2 through engagement led by the proponent with mana whenua and their appointed cultural advisors.

### Stage 2 Requirements

When the project advances to Stage 2, Ecosign is prepared to undertake a full Technical Assessment and Master Planning program, including on-site fieldwork, ropeway alignment refinement, detailed ski-terrain analysis, mountain biking planning coordination, and integration with ONL and environmental specialists.

### Key Stage 2 Tasks

- Detailed ropeway alignment planning and coordination with the ropeway manufacturer
- Snowpack and meteorological analysis
- Ski terrain modeling, metrics, and capacity analysis
- Comprehensive technical terrain assessment, including elevation, slope, aspect, incoming solar radiation, and shading analysis
- ONL and visual impact assessment supported by 3D modeling
- Terminal building massing studies and architectural concept design
- Site visits during both summer and winter conditions