Mt Seymour Resorts
Ski Resort Development Plan
February 2025

BHA
www.brentharley.com

All photos credit of Mt Seymour Resorts Ltd., unless otherwise attributed.

Planning for

Eddie Wood, President & General Manager

Mt Seymour Ski Resort Ltd
1700 Mt Seymour Rd
North Vancouver, BC, V7G 1L3
604.986.2261
snow@mtseymour.ca
www.mtseymour.ca

Planning by

Brent Harley
Matt Bakker
Ryan Robertson
Kyle Vash
Christine Bilodeau
Sue Clark

Brent Harley and Associates Inc. (BHA)
4 - 1005 Alpha Lake Rd.
Whistler, BC, V8E 0H5
T: 604-932-7002
bha@brentharley.com
www.brentharley.com

CONTENTS

List of Figures

List of Tables

List of Charts

TERRITORY ACKNOWLEDGEMENT

Mt Seymour Resorts acknowledges that it operates on the unceded territories of the səlilwətaɬ (Tsleil-Waututh), Skwxwú7mesh (Squamish), and xʷməθkwəy̓əm (Musqueam) Nations.

Executive Summary

Introduction

The Ski Resort Development Plan (SRDP) for Mt Seymour Resorts (MSR) describes the evolution of this successful ski area into the mountain recreation gateway for Metro Vancouver. The SRDP describes the Resort's phased development over the next 60 years, its diversification into a mix of high-quality all-season mountain and recreation facilities and attractions, and growth into a premier mountain recreation destination in Metro Vancouver. The SRDP was completed by Brent Harley and Associates Inc. (BHA) with input from Mt Seymour Resorts Ltd., BC Parks, Tsleil-Waututh Nation, Squamish Nation, and local stakeholders. The purpose of the SRDP is to provide a conceptual roadmap for the preferred development at Mt Seymour Resorts over the term of its Park Use Permit. This development has been designed to improve the quality of the guest experience at MSR, aligned with Park values. The SRDP is the foundation for achieving MSR's vision, goals, and objectives.

The Planning Process

In January 2017, Brent Harley and Associates were retained to create a new SRDP to guide the long-term development of MSR. The resort ownership and management team developed a comprehensive vision for MSR as the foundation for the SRDP, recognizing the strong demand for an accessible, family-oriented, all-season mountain recreation experience on Vancouver's North Shore. BHA then undertook a detailed terrain analysis of the study area, confirming the technical viability of expanding and upgrading the mountain's alpine skiing and snowboarding experience, as well as developing summer recreational activities, and conducted an in-depth analysis of the base area, including its size, layout, and orientation. BHA tied these analyses together to create a series of potential development concepts for expanding and upgrading the mountain facilities and amenities in a balanced manner, integrating them with an improved base area. The development concepts were refined through collaboration with Mt Seymour Resorts Ltd. to arrive at the preferred concept presented in the BHA Ski Resort Development Plan for Mt Seymour Resorts.

The Vision

Visioning sessions, led by BHA, established that MSR has a strong reputation as a family-oriented, beginner-friendly resort with the best snow on the North Shore Mountains. The variety of beginner and novice ski terrain, along with a consistent, deep snowpack, has made MSR the place to go for new skiers, young and old.

Building on these positive qualities, Mt Seymour Resorts is envisioned as:

Metro Vancouver's starting gate to mountain recreation.

Mt Seymour Resorts Ltd., the owner of Mt Seymour Resort, recognizes that its position within a Provincial Park places it in a unique position within both the ski industry and the parks system. It understands that to realize its vision, it must be aligned with the goals and objectives for Mount Seymour Provincial Park.

BC Parks states that their role is:

To protect the legacy of our natural heritage for future generations to enjoy as past generations have.

Mt Seymour Resorts Ltd. will work with BC Parks, First Nations, local stakeholders, and members of the public to realize the complementary visions for Mt Seymour Resorts and Mount Seymour Provincial Park. To do so, the following goals and objectives guided the creation of the Mt Seymour Resorts SRDP.

- Ensure the long-term viability of Mt Seymour Resorts by improving existing recreation activities and diversifying recreation activities and facilities through all four seasons.
- Address capacity and access issues related to the ski area and the Provincial Park.
- Resolve Controlled Recreation Area (CRA) boundary conflicts in collaboration with BC Parks and Metro Vancouver.
- Upgrade existing water and sewage systems to meet growing visitation and support the development of snowmaking infrastructure.

Existing Resort

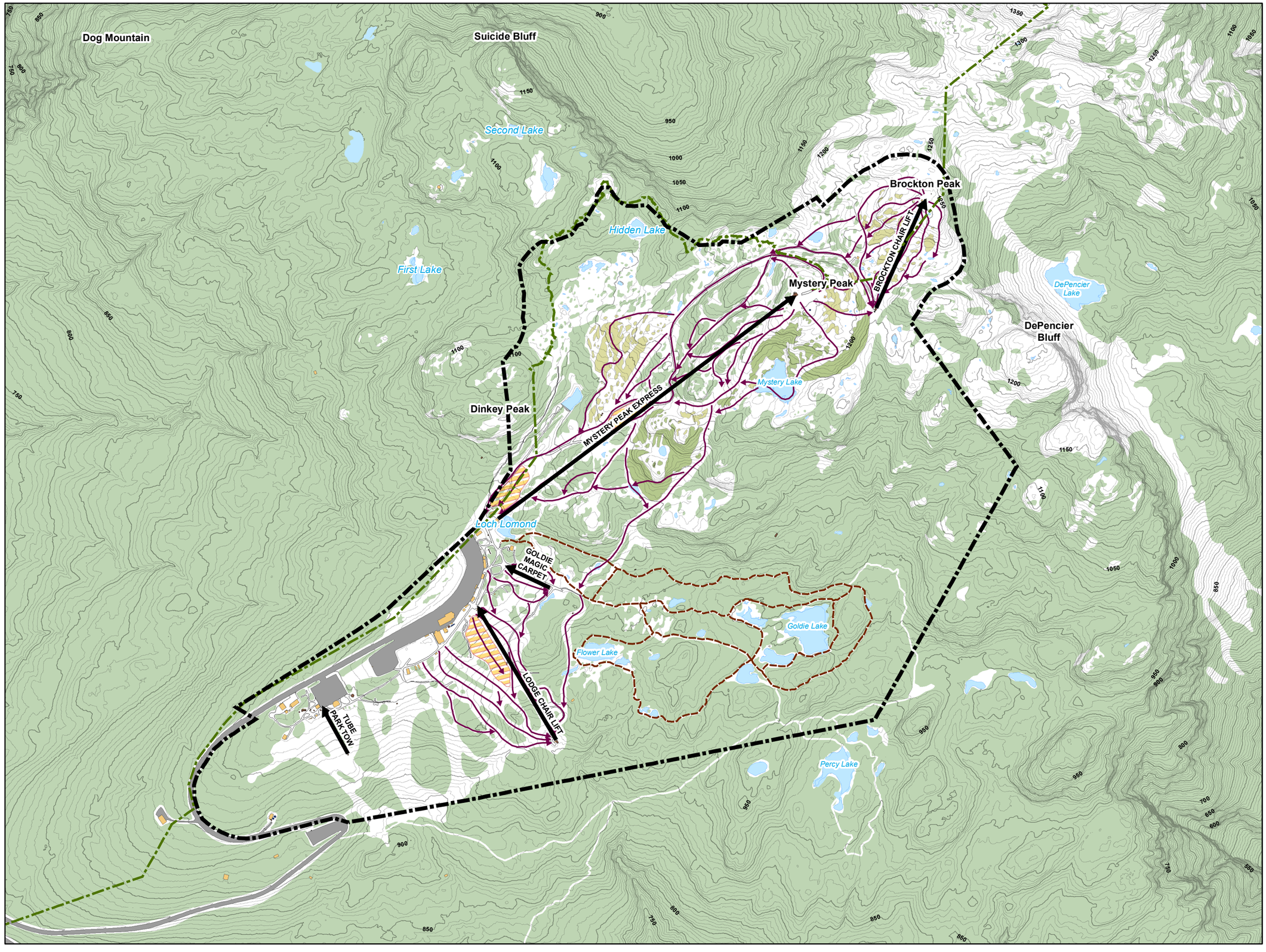
Location

Mt Seymour Resorts is located within Mount Seymour Provincial Park in North Vancouver, BC. The Resort sits on the eastern edge of the North Shore Mountains below the peak of Mt. Seymour and overlooks the Metro Vancouver region. It is approximately a 30-minute drive from downtown Vancouver and within a 1.5-hour drive of all areas of Metro Vancouver.

Existing Facilities

Mountain Facilities

The current mountain facilities at Mt Seymour Resorts (Figure E-1) consist of 4 lifts servicing 41 trails (plus gladed ski trails and terrain parks) contained within their Controlled Recreation Area (CRA), an area of approximately 230 hectares (570 acres). The CRA area also contains MSR's snowshoe trail network, consisting of 11 trails (5.6 km) and two sliding areas.



Mt. Seymour Resort
Resort Development Plan
2025

Legend

- Mt Seymour CRA
- Mount Seymour Provincial Park
- Existing Lifts
- Existing Terrain Parks
- Existing Ski Trails
- Existing Snowshoe Trails

Existing Glading

- Thin Glading
- Dense Glading

Planning by:

BHA

4-1005 Alpha Lake Road,
Whistler, BC, Canada V8E 0H5
Tel: 604 932 7002
email: bha@brentharley.com
website: www.brentharley.com

Prepared for:

Mt. Seymour Resort Ltd.
1700 Mt. Seymour Road
North Vancouver, BC, Canada V7G 1L3
Tel: 604 986 2261
email: snow@mtseymour.ca
website: www.mtseymour.com

1:10,000

0 100 200 400 Meters

Existing Resort

Figure E-1

This page has intentionally been left blank.

The skiing facilities at MSR have a Peak Comfortable Carrying Capacity (PCCC) of 1,717 skiers[1]. The Peak CCC is a measure of the optimal number of skiers who can use a resort during its busiest period while ensuring a pleasant recreational experience and avoiding degradation of the surrounding environment. Given the high demand for alpine skiing at MSR, its proximity to Metro Vancouver, and its vision for the future, BHA applied the highest acceptable skier densities in its analysis.

The analysis of the existing ski trails found an oversupply of beginner and novice terrain and a lack of intermediate, advanced, and expert terrain. Mt Seymour Resorts has committed to addressing this imbalance by developing new ski terrain.

The capacity of the available alpine skiing, additional winter activities (e.g., snowshoeing) and passive visitors resulted in a Peak Balance Resort Capacity (Peak BRC) of 2,660 visitors at MSR. The Peak BRC is the total number of guests the Resort's facilities can accommodate during the busiest period of the day while respecting the site's environmental limits and preserving a high-quality guest experience. The Peak BRC is the foundation for determining the appropriate scale of base area development (e.g., built space, parking).

Base Area Facilities

The existing base area at Mt Seymour Resorts extends along the Lodge Ridge, connecting the Mystery Peak Express in the north with the Enquist Lodge in the south. BHA's analysis of these facilities, as they relate to the Peak BRC, found that the amount of built space for ski patrol/first aid and administration is well provided. However, compared to industry standards, space for washrooms, restaurant/dining, rentals, and ski school is underserved. As these are crucial to a positive visitor experience, the SRDP evaluates and illustrates the opportunities to expand or upgrade the base area facilities.

Parking

The day-use parking lots at Mt Seymour Resorts have a capacity of 823 cars. At full capacity, the parking areas have space for approximately 1,646 guests (based on 2 people per vehicle, determined from recent vehicle surveys). Through the SRDP, as Mt Seymour Resorts expands, parking capacity will expand, additional programs and active management will be employed, and alternative transport options will be explored to balance the resort's recreation capacity and improve the guest experience.

[1] For simplicity, any reference to skiing in the SRDP implies both skiing and snowboarding.

Site Analysis

The Mountain and the Base

BHA analyzed the physical characteristics of the study area in terms of slope, elevation, and aspect to gain an understanding of the alpine skiing development potential and its capability to support additional all-season resort activities, physically and environmentally. BHA identified several areas that hold significant promise for the upgrade and expansion of winter activities and the development of summer activities. Notably, slopes within the CRA to the southeast of the Mystery Peak Express present a significant opportunity to increase the amount of intermediate and advanced ski terrain. Further, the ski terrain above De Pencier Lake could add a new dimension to the Resort, offering long intermediate ski runs and gladed areas currently lacking at MSR. Finally, the surrounding Mount Seymour Provincial Park offers summer and winter backcountry adventure opportunities, which MSR supports and seeks to improve, enhancing the recreation opportunities and promoting Mt Seymour Resorts as a wilderness and backcountry recreation gateway on the North Shore.

Ski Resort Development Plan

The Mt Seymour Resorts Ski Resort Development Plan (SRDP) describes the proposed evolution of MSR from a local ski area into a standout all-season regional resort. It is divided into two principal parts – the mountain facilities and the base area facilities.

Mountain Facilities

Mountain facilities are the on-mountain recreation trails, equipment and infrastructure developed to complement the natural landscape and environment in which they are built. They are the features and tools visitors and guests utilize to enjoy their escape to the mountains. The SRDP defines the proposed facilities that Mt Seymour Resorts can support, now and in the future. In the winter, these include ski lifts and trails, snowshoeing, and tubing, while in the summer, opportunities will include hiking, wildlife viewing, zip lining, aerial adventure experiences, and mountain biking, all complemented by year-round glamping, cabin, and spa experiences.

Mountain Facility Goals and Objectives

Winter Season

The primary mountain development goals for MSR as they relate to winter facilities are to:

- Continue to offer terrain that reinforces the diverse needs of families and provides something for everyone, from traditional ski runs to gladed terrain for all ability levels.
- Continue to offer terrain designed to encourage skier skill progression.
- Provide intermediate/entry-level gladed ski trails that are ‘feathered’ into advanced gladed ski trails, supporting skier skill progression.
- Realize efficiencies within the existing terrain through modifications, upgrades, and infill.

- Continue to upgrade the ski lift system to cater to a high-density family skiing experience.
- Develop exciting new terrain that will inspire the skiers and snowboarders of Vancouver.
- Preserve, develop, and enhance the ski-to/ski-from capabilities of the Base Area.
- Preserve and enhance the trails catering to backcountry skiing and snowshoeing staged from Mt Seymour Resort.
- Develop a comprehensive snowmaking system utilizing state-of-the-art technologies to ensure a reliable snowpack, especially at lower elevations.
- Improve and expand on-mountain facilities to cater to the diverse needs and expectations of skiers in each area of the mountain.
- Provide exciting and compelling alternative winter activities for guests, such as snowshoeing and tubing, recognizing families' diverse needs and interests.

Summer Season

The primary mountain development goals for MSR as they relate to summer facilities are to:

- Plan for, design, and develop an accessible mountain biking trail system, an aerial adventure park and zip lines unique to Mt Seymour Resort.
- Plan and design various overnight options, from glamping to cabins, that are welcoming and accessible to all and provide a range of wilderness experiences.
- Consider and develop additional recreational opportunities in and around Mt Seymour Resort, including facilities and activities like a via Ferrata, a skywalk, an alpine slide, and a suspension bridge.
- Preserve, enhance, and expand on the trails catering to hiking, trail running, and backcountry backpacking staged from Mt Seymour Resort.
- Explore the opportunities to develop additional summer attractions, facilities, festivals, events, and celebrations based in the Base Area.

Guests heading up Mystery Peak Express after a fresh snowfall.

Lift and Trails

At the buildout of the SRDP, Mt Seymour Resorts will consist of 14 ski lifts servicing 90 ski trails, plus gladed ski trails and terrain park areas (Figure E-2). Of these, 6 lifts will service existing terrain, 5 lifts will offer access to new areas, and 3 will facilitate skier circulation. This represents an additional 116 hectares of newly developed ski terrain and will bring Mt Seymour Resort's total developed ski terrain to approximately 158 hectares. With the planned increases to the intermediate, advanced, and expert terrain, the available ski terrain will more closely align with the distribution of skier skill classes in the skier marketplace and respond to increasing demand for alpine skiing in the Metro Vancouver region. At buildout, the Peak Comfortable Carrying Capacity, or the number of guests that can be accommodated during the busiest period of the day while ensuring a positive experience and respecting the environmental limits of the landscape, will be approximately 4,500 skiers during the busiest period.

Summer Attractions

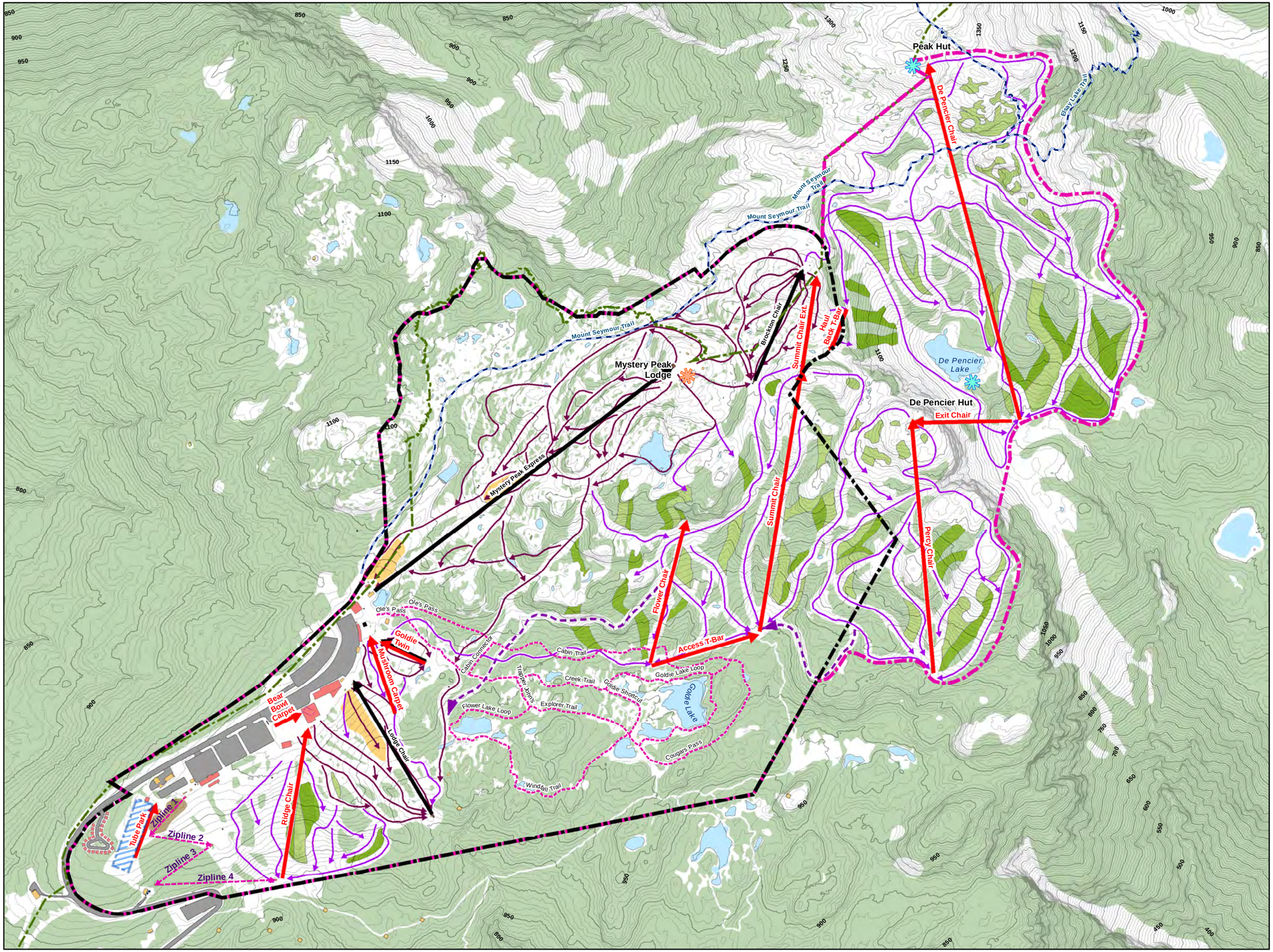
Mt Seymour Resorts has excellent potential to develop diverse, accessible, family-friendly summer season experiences. The SRDP describes a comprehensive Summer Plan, including adding an accessible, beginner-focused, Learn-to-Bike mountain biking trail network, an expanded hiking trail network, and wildlife viewing and sightseeing opportunities. Additional summer facilities include the adventure park with zip lines near the Enquist Lodge, and glamping and cabin opportunities. Further, as base area facilities develop, MSR will actively engage in summer-use programming to accommodate festivals, concerts, camps, and weddings.

Backcountry Access and Use

Backcountry skiing, snowshoeing, and hiking are ever-popular activities and are part of the history and fabric of Mount Seymour Provincial Park. Mt Seymour Resorts is committed to preserving and enhancing the backcountry access route through the CRA[2]. Through the SRDP, MSR will work to ensure continuing and improved backcountry access, including:

- identifying and developing an optimized trail alignment better suited to uphill travel for skiers, snowshoers, and hikers;
- widening the trail to better support concurrent uphill and downhill travel;
- active maintenance (e.g., grooming) of key segments;
- active management of locations where downhill and backcountry uses intersect; and,
- a dedicated backcountry skiing return route through the CRA from Brockton Summit.

[2] A free Exclusion of Liability waiver, available at the BC Parks Kiosk near the bottom of Mystery Peak Chair, will be required for travel through the CRA.



MT SEYMOUR

Mt. Seymour Resort Resort Development Plan 2025

Legend

- Mt Seymour Existing CRA
- Proposed CRA
- Mount Seymour Provincial Park
- Existing Terrain Parks
- Existing Lifts
- Proposed Lifts
- Proposed Access
- Proposed Ski Runs
- Existing Ski Runs
- Existing Winter Backcountry Access Routes
- Existing Snowshoe Trails
- Proposed Buildings

Proposed Summer Use

- Aerial Adventure
- Proposed Ziplines

Proposed Winter

- Potential Tube Park

Proposed Glading

- Dense Glading
- Thin Glading

Proposed Mountain Lodges

- Restaurant/Cafe
- Warming Hut

Planning by:

BHA

4-1005 Alpha Lake Road,
Whistler, BC, Canada V8E 0H5
Tel: 604 932 7002
email: bha@brentharley.com
website: www.brentharley.com

Prepared for:

MT SEYMOUR

Mt. Seymour Resort Ltd.
1700 Mt. Seymour Road
North Vancouver, BC, Canada V7G 1L3
Tel: 604 986 2261
email: snow@mtseymour.ca
website: www.mtseymour.com

1:10,000

0 100 200 400 Meters

Mount Seymour Resort at Buildout

Figure E-2

This page has intentionally been left blank.

Peak Balanced Resort Capacity

At buildout, the alpine skiing facilities will have a Peak CCC of approximately 4,500 skiers. The expansion of snowshoeing and the relocation of tubing, as well as the addition of overnight and passive visitors, add 1,400 guests, bringing the Peak BRC to approximately 5,900 visitors during the busiest periods.

Base Area Facilities

The proposed improvements and upgrades of the base area at MSR have been designed to complement the mountain's attributes and planned on-mountain facilities. Base area projects will be gradually developed, in balance with the creation of additional skiing and associated mountain resort attractions.

Built Space

Built space requirements are driven by the Peak BRC of the Resort's facilities. At buildout, MSR must be able to accommodate approximately 5,900 visitors during its busiest period of the day. The types of built space need to complement the needs and expectations of visitors and will range from amenities such as restaurants, bars, and retail shops to services such as ski school, rental, and day lockers to administrative space needed to manage the resort itself. As Mt Seymour Resorts grows in reputation and visitation, these facilities must be expanded and enhanced to meet visitors' expectations. At buildout, the amount and composition of skier-related space will reflect the needs of skiers and visitors, totalling approximately 110,000 ft^2 of built space. The proposed base facilities will take place within the footprint of the existing base area, parking, and staging area, complemented by select on-mountain cafes and huts. The focus of the upgrades will be to complement and provide for the needs of day-use guests.

Base Area

The proposed improvements and expansions of the base area at MSR have been developed to service and complement the adjacent mountain facilities. When completed, the base area will provide a visitor-centred experience supported by restaurants, a pub, rentals, and guest services. The layout of the core of the base area has been designed to support easy movement to and from mountain facilities, spatially separating visitors from vehicles and parking areas to create an intimate and family-oriented atmosphere with stunning views of the Fraser Valley.

Development Summary

The following table summarizes the key elements and improvements in the Mt Seymour Ski Resort Development Plan.

Mt Seymour Resorts SRDP Summary			
	Existing Conditions	**Proposed Development**	**Potential Total Buildout**
Controlled Recreation Area (Hectares)	235	99	334
Ski Lifts			
Carpet Lifts	1	2	3
T-Bars	0	2	2
Double Chairs	2	3	5
Triple Chairs	0	0	0
Fixed Quads	0	3	3
Detachable Quads	1	0	1
Total Lifts	4	10	14
Ski Trails	41	49	90
Skiable Terrain (Hectares)	42	116	158
Peak Comfortable Carrying Capacity - CCC	1,717	2,845	4,561
Additional Winter Activities – Capacity			
Snowshoe	200	50	250
Tubing	300	100	400
Glamping/Cabins	0	200	200
Total Additional Capacity	500	350	850
Additional Passive Guests	443	98	541
Peak Balanced Resort Capacity - BRC	2,660	3,293	5,953
Facility-Related Built Spaces (sq. ft.)	32,177	78,003	110,179

Implementation Plan

The resort marketplace, visitation trends, economic conditions, and MSR's priorities will drive the pace of implementation of the MSR Ski Resort Development Plan. However, the SRDP identifies a series of short-term implementation priorities to set the Plan in motion. These are:

- Secure approvals and initiate the development of a disc golf course near the Goldie pod;
- Secure approvals and initiate construction of two new beginner carpets, the Summit Chair and access lifts, and associated ski terrain;
- Develop a mountain bike trail network associated with the Lodge and Goldie lifts;
- Secure approvals and initiate the relocation of the tube park and the development of the adventure park, which will include zip lines;
- Complete the planning, secure approvals, and initiate the development of the glamping, cabins, and spa experience;
- Secure approvals and initiate construction of a comprehensive snowmaking system;
- Design and secure approvals to expand the built space in the base area (e.g., 3 Peaks Lodge) to address the needs of guests and staff; and,
- Complete the planning and secure approvals for the realignment and expansion of the parking and drop-off areas.

On a longer timeframe, implementation strategies would include, but are not limited to:

- Pursue the development of new ski terrain (e.g., Percy and De Pencier Chairs).
- Complete the planning and approvals for and construction of on-mountain day lodges (e.g., Mystery Peak Lodge, Peak Hut);
- Pursue the development of via Ferratta routes, the Skywalk, and a suspension bridge;
- Complete the planning and approvals for an access gondola, connecting the development at the base of the mountain with MSR; and,
- Continue gradually redeveloping the base and staging area, expanding skier services and parking capacity to meet demand.

Each of these planned development components aligns directly with the vision of MSR becoming the all-season mountain recreation gateway for Metro Vancouver.

Future Project Assessments and Approvals

Approval of the SRDP and SRDP Concept is the first step in a project's approval. If a project (e.g. lift, lodge) is pursued, it will trigger site- and project-specific Environmental Impact Assessments and First Nations Consultation, led by BC Parks. The outcomes of this process will lead to more detailed designs and refinements to the concept and operations to minimize environmental, cultural, and social impacts.

1 INTRODUCTION

The BHA Ski Resort Development Plan for Mt Seymour Resorts has been developed to realize the resort's vision as *Metro Vancouver's starting gate for mountain recreation*, offering guests *fun, safe, and enriching experience*s. It builds on Mt Seymour Resort's strong reputation as a fun, family-oriented ski area and recognizes the unique opportunities and responsibilities that come from its location within Mount Seymour Provincial Park.

Initiated in January 2017, the Ski Resort Development Plan planning process developed a clear vision for the Resort. It progressed from an initial analysis of existing facilities and capacities, identifying challenges and opportunities, to a series of preliminary concepts, which were then refined and synthesized into a proposed preferred concept for Mt Seymour Resort.

The Ski Resort Development Plan establishes a clear and well-defined course of action to achieve projects that enhance the existing winter recreation activities, capitalize on the area's all-season recreational potential, and preserve and showcase the significant natural values of the surrounding parkland, guided by this design process. The preferred resort concept presented in the SRDP achieves this and serves to guide the Resort's development for the foreseeable future.

1.1 Project Overview

Mt Seymour Resorts is a regional ski resort in North Vancouver, British Columbia, located atop the North Shore Mountains, overlooking the Metro Vancouver region. The BHA Ski Resort Development Plan (SRDP) for Mt Seymour Resorts describes an exciting opportunity for the Resort to enhance its winter experience and expand its summer activities. Supporting the all-season mountain development, the existing base area will be transformed into a mountain village experience designed to meet the needs and expectations of guests while realizing operational efficiencies.

The SRDP for Mt Seymour Resorts describes the planning process, demonstrates the technical analyses, and details the proposed ski area enhancements, summer uses, and base area plans. The overall intent of the SRDP is to reinforce Mt Seymour Resort's well-established reputation as a family-oriented ski area with the best snow on the local Vancouver mountains while providing a blueprint for future improvements. The SRDP will guide the development of a four-season ski area that caters to the growing population of outdoor recreationists in Metro Vancouver while respecting and supporting the environmental values of Mount Seymour Provincial Park.

1.2 The Proponent

Mt Seymour Resorts (MSR) is owned and operated by Mt Seymour Resorts Ltd., a Vancouver-based family-run organization that prides itself on MSR's welcoming, family-oriented atmosphere. Since 1984, Mt Seymour Resorts Ltd. has invested in developing MSR, revitalizing aging infrastructure, adding base area amenities, and improving the guest experience.

1.3 Planning Process

In January 2017, Brent Harley and Associates Inc. (BHA) was engaged to develop the SRDP for Mt Seymour Resort. The SRDP planning process was initiated by inventorying the existing conditions in the ski area. BHA created concepts based on a clear development vision for the future, the terrain's characteristics and potential, the area's natural attributes, and the history and culture of MSR.

Building upon the opportunities inherent in the local terrain and recognizing the growing market demand in Metro Vancouver for an accessible, family-oriented mountain resort experience, a comprehensive vision for the Resort was created, and detailed conceptual planning was undertaken. BHA and the MSR team identified opportunities and weaknesses of the existing mountain and base area offerings, with the results of this process providing the foundation for the SRDP that will guide the implementation of these all-season plans, both on the mountain and in the base area, well into the future.

BHA carefully reviewed and completed an initial analysis of the mountain's undeveloped potential within a study area centred on MSR's existing Controlled Recreation Area to improve and upgrade the skiing and snowboarding product and fully incorporate summer-use recreation facilities and attractions. The objective was to consider existing developments, opportunities for infill expansion, and expansion into new terrain to improve the balance of the offering, reflecting changes in the guest marketplace's expectations.

With the analysis complete, BHA determined the Peak Comfortable Carrying Capacity (CCC) of the existing and potential lift-serviced ski terrain. The cumulative capacity of the attractions - alpine skiing and snowboarding, tubing, and snowshoeing - enabled BHA to determine the resort's peak period Balanced Resort Capacity. In addition, BHA explored the possibility of diversifying the winter product, differentiating the area from other 'typical' ski areas, and offering various other outdoor activities.

Complementing the winter-oriented development, in support of the goal to transition MSR into an all-season resort, a diverse range of appropriate summer-season recreation activities, including hiking, sightseeing, a learn-to-ride lift-serviced mountain bike trail network, an aerial adventure park, and other summer pursuits, were explored. This would expand year-round opportunities and the reputation of the Resort as a recreation gateway for Metro Vancouver and support the sustained financial viability and success of the Resort well into the future.

The results of these analyses, the opportunities and constraints facing MSR, were presented and discussed with Mt Seymour Resorts Ltd., BC Parks, and First Nations. These discussions influenced the project's vision, goals, and objectives.

With the vision, goals and objectives defined, BHA undertook a detailed planning exercise, refining and synthesizing the initial concepts through an iterative process into a preferred concept. The preferred concept represents the realization of MSR's vision, goals, and objectives and forms the foundation for the proposed developments at Mt Seymour Resort. It is illustrated and described in detail in Section 4 of the SRDP.

1.4 Mt Seymour Resort's Ambition and Commitments

Mt Seymour Resort's Ambition Statement guided the development of the SRDP:

We exist to create wow experiences in a mountain environment for all skillsets and abilities, all year round.

Invested in the local community and committed to environmental stewardship, we operate from a context of integrity, treating our guests, staff, and stakeholders like part of our family. We are beloved by Vancouverites, both Canadian newcomers and long-time locals alike, and this is demonstrated by our reviews, retention, and our revenue. We have a reputation as the #1 family-owned urban resort in North America, and we've developed innovative processes that have created sufficient capacity to comfortably host a 100% increase in volume.

The Mt Seymour way is about 'we can'. Our team is aligned and empowered to succeed in their roles, whether seasonal or year-round. We are bold and courageous when making decisions that fulfill our purpose, and we are aligned in doing what it takes to get there together.

In support of this Statement, Mt Seymour has made the following commitments:

> ***To First Nations, we promise:*** *to maintain mutually beneficial working relationships on your unceded territory*
>
> ***To BC Parks, we promise:*** *to go above and beyond our operational mandate to support the Park*
>
> ***To the Community, we promise:*** *to make the experience of having Mt Seymour in your background a positive one; we will maximize the value of our visitors to your businesses and employ locals as much as possible.*
>
> ***To our Partners, we promise:*** *to be bold when establishing our expectations and holding partners and ourselves to account, to mutually succeed.*
>
> ***To our Guests, we promise:*** *a safe environment, to treat you like family, and to create exceptional guest experiences. To be honest and keep you up-to-date. To uphold our standards of care.*
>
> ***To our Staff, we promise:*** *to treat you like the Seymour family. To be clear on our expectations of you, to be organized, and to ensure you are trained to be successful in your role. A safe and healthy working environment, an opportunity to enjoy the outdoors and have fun.*

The expansion and changes contemplated in this plan have been developed to fulfill the Ambition Statement and Commitments. This Ski Resort Development Plan has been designed to further MSR's reputation as a family-oriented ski area with the best snow on the North Shore Mountains, to develop a balanced all-season mountain experience, and to attract visitors from across the Metro Vancouver region.

Supporting the stated Ambition, Mt Seymour Resort's Goals and Objectives include the following:

- Ensure the long-term viability of Mt Seymour Resorts by improving existing recreation activities and diversifying them throughout all four seasons. To that end, MSR will look to:
    - Incorporate all-season amenities and facilities.
    - Incorporate non-motorized mechanized recreation opportunities (e.g., mountain biking).
    - Incorporate on-mountain accommodation.
    - Expand and improve alpine skiing and snowshoeing opportunities.
- Address capacity and access issues as they relate to the ski area and the Provincial Park
    - Clarify management responsibilities with BC Parks and Metro Vancouver
    - Expand parking capacity for resort guests.
    - Improve and implement alternative transportation strategies to reduce parking capacity requirements, vehicle traffic, and environmental impacts.
    - Address liability and management issues related to control of the CRA.
- Resolve Controlled Recreation Area (CRA) boundary conflicts with BC Parks and Metro Vancouver
- Support BC Parks continued upgrading of water and sewage systems to meet growing visitation.

1.5 Ski Resort Development Plan Goals and Objectives

The primary goal of this planning process is to create a new Ski Resort Development Plan for MSR that will guide the ongoing development of the Resort. It must reflect the:

- Defined Ambition Statement, Commitments, Goals and Objectives.
- Unique development opportunities at MSR, reinforcing the established resort ambience and experience offered.
- The Resort's unique position within the BC Parks system and the ski industry.
- Changes in the mountain resort marketplace and guest expectations.
- Requirements and expectations of Mt Seymour Resorts Ltd.
- Requirements of BC Parks and the BC Parks Ski Area Policy.

The intent of this project is to:

> *Create a Ski Resort Development Plan for Mt Seymour Resorts that establishes a clear, well-defined course of action to deliver projects that enhance existing winter recreation activities and capitalize on the area's all-season recreational potential.*

Building on this, the goals and objectives of the Ski Resort Development Plan are:

- Distinguish Mt Seymour Resorts from other regional ski areas, highlighting the Resort as a special and unique place that complements its environment.
- Define and incorporate the all-season recreation opportunities within the existing Controlled Recreation Area and the surrounding study area.
- Respect, preserve, and showcase the natural values of the Controlled Recreation Area.
- Optimize development and operational efficiencies.
- Build upon and expand base area amenities to cater to a growing user base.
- Be planned and designed as an economically self-sustaining enterprise.
- Establish a well-defined course of action that successively guides future mountain and base area development.

1.6 Future Studies and Assessments

Approval of the SRDP establishes a direction for future resort activities and improvements, but it does not authorize development of individual projects. Rather, when an individual project is advanced (e.g., lift, lodge), MSR must submit a project-specific proposal to BC Parks, which will trigger an Environmental Impact Assessment and First Nations Consultation, led by BC Parks. This process identifies potential environmental, cultural, recreational, social, and economic impacts, assesses their significance, and determines appropriate avoidance, mitigation, restoration, monitoring, and reporting requirements. As part of the SRDP planning process, MSR has completed a survey of environmental values to be considered in the BC Parks Impact Assessment process (See Section 2.9.3).

As such, the SRDP should be viewed as the first step in the planning process. Individual projects will still require site- and project-specific review and approval from BC Parks before they can be developed. Mt Seymour Resorts is committed to meeting or exceeding the highest standards and best management practices for the study, development, monitoring, and operation of each of its projects, if and when it pursues them.

2 EXISTING RESORT CONTEXT

Located on the doorstep of Metro Vancouver, a region of 3.1 million residents, Mt Seymour Resorts (MSR) has seen a rapid growth in visitation in recent years as demand for outdoor recreation experiences has risen. Its proximity to a vibrant outdoor recreation community and its setting within a Provincial Park have led MSR to occupy a unique position within the BC Parks system and the regional skier marketplace. The Resort can blend opportunities for high-quality alpine resort experiences, immersive and authentic wilderness experiences, and the protection and celebration of the surrounding parklands.

Currently, MSR offers downhill skiing and snowboarding, complemented by an ever-popular tube park and snowshoe trail network within a 235-ha Controlled Recreation Area. Skiers can access over 41 ski trails and 4 terrain parks via 4 chairlifts, amounting to 42 ha of skiable terrain. Viewed in relation to the marketplace, MSR has an abundance of novice and beginner terrain but a lack of advanced and expert ski terrain.

Analysis of existing ski trails and recreation opportunities determined that MSR can comfortably accommodate 1,717 skiers at peak times, while popular secondary winter activities, such as snowshoeing and tubing, led to a total resort capacity of 2,660 guests at peak times. Complementing the recreation opportunities available, the base area is well-positioned to meet the needs of day-use guests, offering a restaurant, cafeteria, and pub along with a comprehensive equipment rental service, ski school, and administrative and maintenance facilities. However, there are opportunities to expand the base area facilities and associated parking, realize efficiencies in space use, and better connect the Resort to the region.

2.1 Location & Access

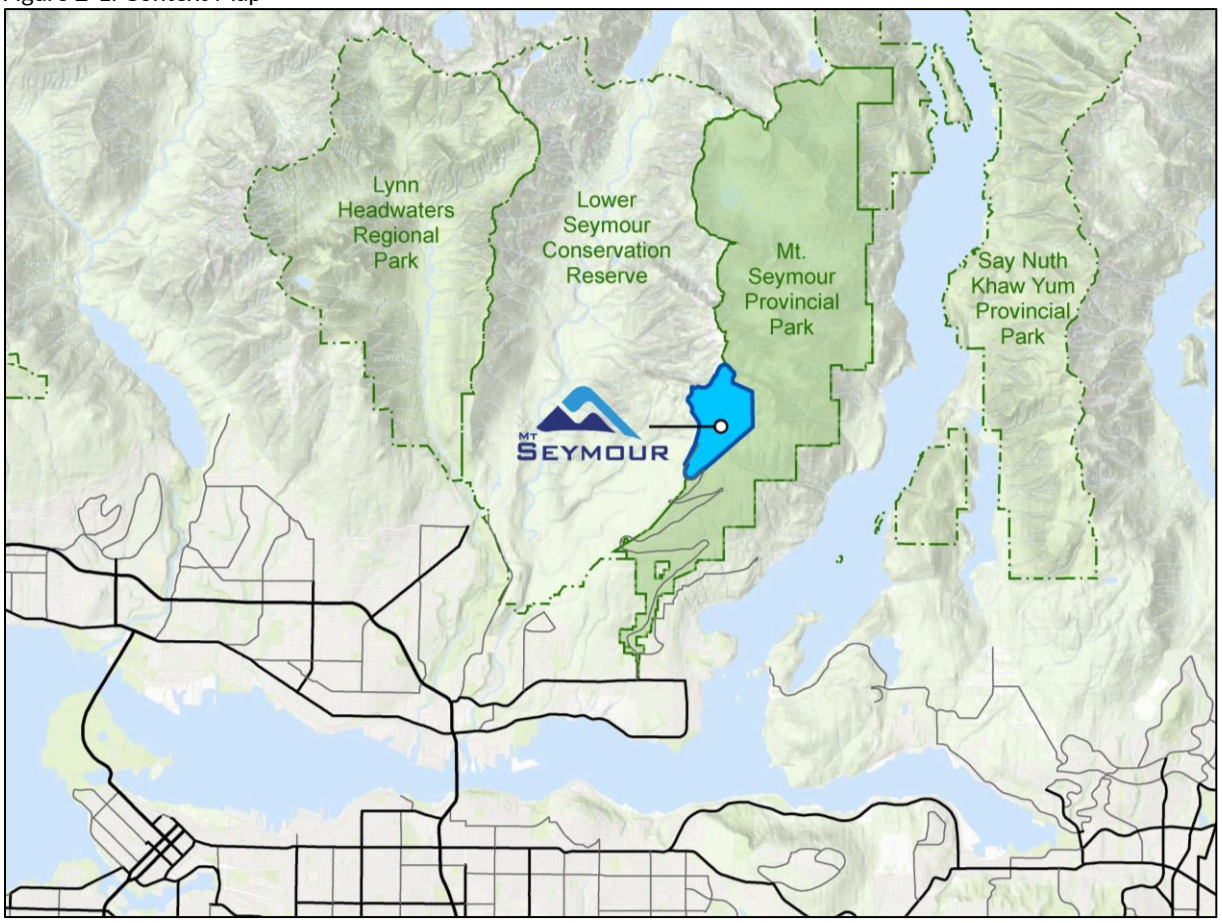
Mt Seymour Resorts is located within Mount Seymour Provincial Park in North Vancouver, BC. The Resort sits on the eastern edge of the North Shore Mountains below the peak of Mount Seymour, overlooking the Metro Vancouver region (Figure 2-1). It is approximately a 30-minute drive from downtown Vancouver and within a 1.5-hour drive of all areas of Metro Vancouver.

Mt Seymour Resorts is easily accessible via Mount Seymour Road from the District of North Vancouver. The approximate driving times from representative local municipalities are presented in Table 2-1.

Table 2-1: Drive Times to Mt Seymour Resort

Location	Drive Time (minutes)
North Vancouver, BC	20
Vancouver, BC	45
Surrey, BC	55
Maple Ridge, BC	65

Figure 2-1. Context Map



2.2 Regional Context

The Metro Vancouver region is home to 3.1 million people dispersed across 21 municipalities, an electoral area, and a Treaty First Nation. It is situated between the Coastal Mountain Range, the Salish Sea, and the border with the United States of America. The area is a gateway for the rest of the Province, with a diversified economy and an ever-growing population.

Metro Vancouver is a major transportation and economic hub for the Province of British Columbia (B.C.). Its close ties to major cities along the Pacific Rim have made the region a focal point for international commerce, acting as a distribution centre for Canadian and international products. The vibrancy of trade has led to a strong, diversified economy that has grown significantly in recent years.

The region has also become a gateway for international travellers. The Province's natural beauty and rich culture have made B.C. a premier destination for travellers seeking cultural, nature-based, or adventure tourism experiences. As tourism has grown, so have the facilities and amenities needed to support their visits.

A strong economy and beautiful natural setting have driven rapid population growth over the past 3 decades. Since 1990, the regional population has grown from 1.6 million people to 3.1 million people, with the population expected to surpass 3.8 million by 2046[3]. The increase in population has spurred further economic growth, increased demand for outdoor recreation experiences, and led to the development of a diverse range of tourism offerings.

2.3 First Nations

Mt Seymour Resorts resides within the asserted traditional territory of the Tsleil-Waututh, Squamish, and Musqueam First Nations in British Columbia. These Nations have lived in and around what is now called Metro Vancouver for millennia. Mt Seymour Resorts has engaged with all the Nations through the SRDP development process, providing early concepts and soliciting feedback on how the SRDP could best address any resulting concerns or potential opportunities.

Over the last several years, Mt Seymour Resorts and Tsleil-Waututh Nation have worked together on various projects and programs to strengthen the connection between them and between the Tsleil-Waututh Nation members and the resort area. These activities include a traditional welcoming ceremony at the beginning of each season, the incorporation of Tsleil-Waututh art on resort passes, collaboration on the curriculum for outdoor education programs, support of the Nation's ski and snowboard club, and coordination regarding the investigation of archaeological and cultural values following Tsleil-Waututh Nation protocols.

Mt Seymour Resorts is committed to maintaining and strengthening its working relationship with First Nations. It will work with them and BC Parks to preserve traditional use in the CRA, conserve culturally significant sites, integrate their culture and history into the guest experience at MSR, and pursue projects that help achieve the shared goal of sustained prosperity.

[3] BC Stats (2026). Sub-Provincial Population Projections – P.E.O.P.L.E 2016 (April 2026). Retrieved from: https://www.bcstats.gov.bc.ca/apps/PopulationProjections.aspx

2.4 Regional Recreation Demand

The demand for outdoor recreation activities has exceeded the recent population growth rate in the Metro Vancouver region. Over the past 20 years, participation in recreational activities in the Metro Vancouver region has increased by approximately 110%[4]. On average, a resident of Metro Vancouver participates in an outdoor recreation activity 41 times a year, with most activities pursued in the summer (>1 activity per week). These activities are primarily day-use, with visitors seeking experiences within 1.5 hours from home[2].

As the demand for recreational activities has grown, so has the diversity of experiences being sought. Traditionally, activities that were accessible and presented low barriers to entry have been the most popular[2]. However, interest in skill-demanding activities, such as cycling, skiing, and snowboarding, has significantly increased in recent years[2].

The future growth of skiing and snowboarding will expand an already large and active skiing community. Metro Vancouver is home to approximately 274,000 skiers[5], who spend 2.1 million days skiing each year[6]. This equals a third of all days skied in the province of British Columbia annually[3] and confirms a strong demand for skiing in the Metro Vancouver region.

2.5 Adjacent Land and Resource Use

Mt Seymour Resorts is surrounded by parkland administered by BC Parks, the District of North Vancouver, and the Metro Vancouver Regional District. These areas are used extensively for recreational activities all year round. In the summer, the area offers numerous walking, hiking, and mountain biking trails, as well as opportunities for camping and wildlife viewing. At the same time, in the winter, snowshoeing and backcountry skiing are increasingly popular.

Mt Seymour Resorts occupies a 235 ha Controlled Recreation Area (CRA) within Mount Seymour Provincial Park. The Park is approximately 3,509 ha, with trails linking lower elevations to local peaks. Say Nuth Khaw Yum Provincial Park, a collaboration between BC Parks and the Tsleil-Waututh First Nation, resides immediately east of Mount Seymour Provincial Park.

The District of North Vancouver manages lands just south of Mount Seymour Provincial Park. This is a major area for mountain biking, hiking, and dog walking in Metro Vancouver. The trail networks here are interconnected with those in the Park and allow visitors to connect to MSR by foot if desired.

On its western side, MSR borders the Lower Seymour Conservation Reserve, which is managed by the Metro Vancouver Regional District. Several hiking trails that originate in Mt Seymour Resorts cross over into Metro Vancouver lands, though most local hikers do not distinguish between the two areas.

---

[4] Metro Vancouver & Fraser Valley Regional District (2011). Regional Outdoor Recreation Opportunities Study. Retrieved from: http://www.metrovancouver.org/services/parks/learn/plans-and-reports/research/Pages/default.aspx

[5] Canadian Ski Council (2016). *Stats & Facts: Ski and Snowboard Industry 2014-15*. Retrieved from: *https://www.skicanada.org/wp-content/uploads/2016/.../2014-15-Facts-and-Stats.pdf*

[6] Assumes 7.5 days skied per skier per year (Canadian Ski Council, 2017).

2.6 Provincial Legislative Framework

The terms by which Mt Seymour Resorts Ltd. operates within Mount Seymour Provincial Park are established in its Park Use Permit (PUP). The intent of PUPs is to manage and mitigate the impacts of commercial activity within the park system and ensure activities align with the goals and objectives of BC Parks and the specific park in question. The PUP for MSR was issued in 1984 for a 50-year term and has been revised as needed over subsequent years.

In addition to the PUP, development at MSR is guided by the BC Parks Ski Resort Policy. The policy was created as a framework to guide ski resort development within the Provincial Parks and to address management concerns not included in other policies or legislation. The Ski Resort Policy calls for the creation of a Ski Resort Development Plan to convey the current state of the resort as well as planned developments or improvements to BC Parks and the broader public. Ski Resort Development Plans illustrate the Resort's recreational benefits to the public, its long-term viability, environmental mitigation measures, how plans align with park management objectives, and reflect stakeholder interests and aspirations. The Ski Resort Policy applies to decisions on planned ski resort developments or improvements, considering the Parks Act, the Park's Class, and Management Plan, as well as the needs of other PUPs within the park.

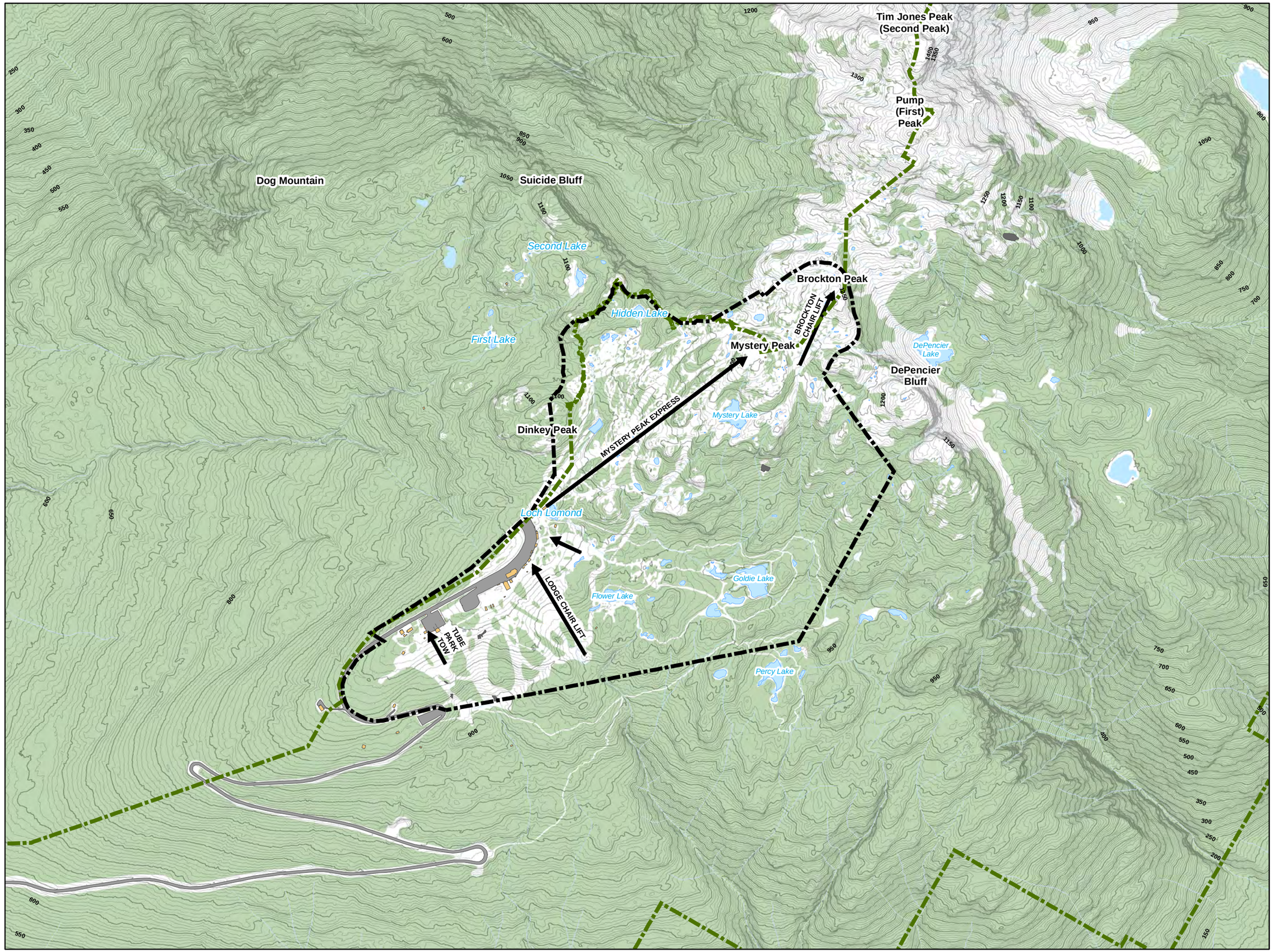
2.7 Mt Seymour Resorts Study Area

For the BHA Ski Resort Development Plan for Mt Seymour Resort, the lands surrounding Mt Seymour Resort's Controlled Recreation Area (CRA) have been considered part of the Study Area (Figure 2-2). While not under the authority of Mt Seymour Resorts Ltd, it was important to consider adjacent land use and contextual factors that may influence the future direction of MSR.

Within the BC Parks system, a Controlled Recreation Area refers to an area within which the resort owner/operator controls use and access as per their Park Use Permit to facilitate the continued viability of the resort and the provision of high-quality recreation experiences for the people of British Columbia. In the case of Mt Seymour Resort, the lands outside their CRA are managed by BC Parks or the Metro Vancouver Regional District.

There are two ongoing issues centred on the CRA: the delineation of management responsibilities and the physical extent of the CRA. Currently, MSR remains responsible for members of the public crossing through the CRA and for the efforts needed to ensure adequate provision of facilities and elements of their safety and enjoyment. This lies beyond the scope of the current Park Use Permit and has placed additional strain on operational resources. Through the SRDP, MSR has proposed opportunities to create permanent backcountry access through the CRA, establish clear management responsibilities and liabilities, and ultimately preserve and improve backcountry experiences while reducing risk to users and the resort, benefiting everyone.

Second, the alignment of the CRA boundary under the terms of MSR’s current Park Use Permit extends beyond the park boundaries into lands managed by the Metro Vancouver Regional District. The overlap between jurisdictions has created confusion and complications for all sides, ultimately limiting the effective use of lands within the CRA. Accordingly, parallel with the approval of the SRDP, the boundaries of the CRA, Provincial Park, and Metro Vancouver lands should be aligned.



Mt. Seymour Resort
Resort Development Plan
2025

Legend

- Mt Seymour CRA
- Mt. Seymour Provincial Park
- Existing Lifts
- Existing Vegetation
- Lakes

Planning by:

BHA

4-1005 Alpha Lake Road,
Whistler, BC, Canada V8E 0H5
Tel: 604 932 7002
email: bha@brentharley.com
website: www.brentharley.com

Prepared for:

Mt. Seymour Resort Ltd.
1700 Mt. Seymour Road
North Vancouver, BC, Canada V7G 1L3
Tel: 604 986 2261
email: snow@mtseymour.ca
website: www.mtseymour.com

1:15,000

0 150 300 600 Meters

Mt Seymour Study Area

Figure 2-2

This page has intentionally been left blank.

2.8 Historic Context

The history of MSR is interwoven with the history of skiing on the North Shore Mountains. In the early 1900s, pioneer skiers would make the trip over to the slopes of Mt. Seymour from Vancouver. The great ski terrain they found led them to develop ski cabins through the 1920s and 1930s, giving rise to the first commercial ski operations on Mt. Seymour in the late 1930s. At the same time, residents recognized the area's ecological and recreational value, and Mount Seymour Provincial Park was created in 1936 to preserve these values for generations to come.

Over the following decades, the area's popularity grew, supported by terrain improvements, the installation of the first permanent ski lifts and base-area amenities, and the completion of a public paved road in 1973. This period of development and expansion took place while the Province of British Columbia owned the ski area. In 1984, the Provincial Government sought to divest itself of the ski resorts operating in Provincial Parks. The Woods family purchased the ski area infrastructure at Mount Seymour Provincial Park and signed a 50-year PUP, with the intent of creating a family-oriented skiing experience true to the ski history and culture of Mount Seymour.

2.9 Environmental Context

2.9.1 Climate and Weather

Using data collected on-site and weather models, BHA calculated that MSR has a mean annual temperature of 5.7°C, with seasonal averages ranging from -2.7°C to 17.2°C. Winter temperatures (December to February) range from -4.5°C to 2.3°C, while summer temperatures (June to August) range from 6.9°C to 17.8°C.

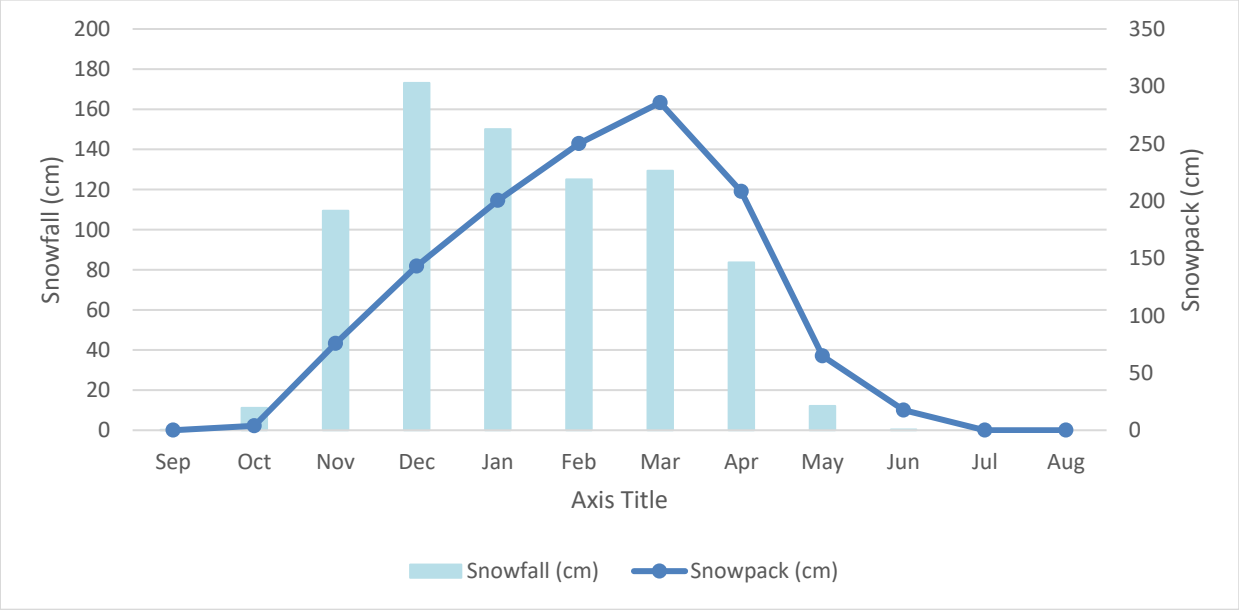
These temperatures align with historical weather data from the Grouse Mountain Weather Station (Table 2-3). The weather station is located approximately 10 kilometres west of MSR, at an elevation of 1,103m. As detailed in Table 2-2, the mean annual temperature at the Grouse Mountain site is 5.4°C, with seasonal averages ranging from -0.5°C to 13.8°C. Like MSR, winter temperatures range from -2.8°C to 2.5°C, while summer temperatures range from 6.3°C to 17.5°C.

Table 2-2. Historical Weather Data (1976 – 2006) – Grouse Mountain Weather Station (1,103m)

Month	Mean Max Temp (°C)	Mean Min Temp (°C)	Mean Temp (°C)	Total Rain (mm)	Total Snow (cm)	Total Precip. (mm)	Snowpack (cm)
Jan	1.7	-2.8	-0.5	139.3	150.1	290.0	200.4
Feb	2.5	-2.6	-0.1	97.1	125.0	214.3	250.1
Mar	3.4	-1.7	0.9	83.9	129.3	209.6	285.8
Apr	6.7	0.4	3.5	73.8	83.6	158.9	208.2
May	10.0	3.4	6.7	153.3	12.1	164.9	64.8
Jun	13.3	6.3	9.9	155.7	0.4	156.0	17.5
Jul	17.1	9.4	13.2	94.8	0.0	94.8	0.0
Aug	17.5	10.2	13.8	114.6	0.0	114.6	0.0
Sep	14.5	7.8	11.2	160.6	0.2	160.8	0.0
Oct	8.6	3.3	6.0	267.3	11.2	278.9	3.8
Nov	3.4	-1.0	1.2	294.3	109.4	396.0	75.7
Dec	1.3	-3.1	-1.0	134.4	173.1	305.2	143.1
Average	8.3	2.5	5.4	-	-	-	-
Total	-	-	-	1,769.1	794.5	2,544.0	-

Overall, annual precipitation at MSR (2,440 mm) is comparable to other mountains along the North Shore (Grouse Mountain - 2,544 mm, Hollyburn Ridge – 2,593 mm). During winter, approximately 75% of this precipitation falls as snow. On average, each year, MSR receives more than 725 cm of snowfall. This allows MSR to maintain a snowpack of approximately 255 cm throughout the ski season. Based on historical weather data from the weather station, the area receives significant snowfall between November and April, with a snowpack suitable for skiing lasting from the end of November to the end of April (approx. 140 days). Historic snowfall and snowpack data from the Grouse Mountain Weather Station are presented in Chart 2-1.

Chart 2-1. Historic Snowfall and Snowpack from the Grouse Mountain Weather Station



The local topography strongly influences temperatures and precipitation. MSR's position on the North Shore Mountains, adjacent to the Pacific Ocean, results in masses of warmer, moist air moving in from the ocean. This leads to warmer average temperatures relative to ski resorts found further inland. Additionally, the North Shore Mountains force this warmer, wetter air up, which in turn cools the air mass and results in significant precipitation.

2.9.2 Environmental Setting

Mt Seymour Resorts resides within the Pacific Ranges Ecoregion and Southern Pacific Ranges Ecosection. The Resort contains areas of the Coastal Western Hemlock biogeoclimatic zone characterized by biologically rich, temperate rainforests and the drier, hardier Mountain Hemlock biogeoclimatic zone at higher elevations (>1,000m). Stands of old-growth forests still exist in pockets within the CRA, and valuable wetland habitat is found in the subalpine area.

Table 2-3. Biogeoclimatic Zones in Mt Seymour Resort

Biogeoclimatic Zone	Subzone	Label	Area (ha)
Coastal Western Hemlock	Very Wet Maritime	CWH vm 2	128.7
Mountain Hemlock	Moist Maritime	MH mm 1	101.9

2.9.3 Valued Ecosystem Components

Roe Environmental Inc. completed a preliminary Environmental Overview Assessment (EOA) of the proposed Mt Seymour Resorts Controlled Recreation Area (CRA)[7]. The purpose of the EOA was to identify Valued Ecosystem Components (VEC) for consideration in the future BC Parks Impact Assessment (BCPIA) processes for specific projects or improvements. A VEC is a specific element of the environment, such as a species or habitat, that is considered important for scientific, cultural, or economic reasons. VEC identification is a core component of environmental assessment and represents the basis for development impact analysis, mitigation, and monitoring.

The work consisted of a review of available Provincial data, complemented by Roe's existing knowledge of Mt Seymour Resort and Mount Seymour Provincial Park. It includes a review of data from the BC Conservation Data Centre (BC CDC), BC Species and Ecosystems Explorer, e-Flora BC, e-Fauna BC, BC Breeding Bird Atlas, and the Province's Freshwater Atlas and Ecosystem Classification datasets.

Several VEC were identified through the EOA process. These components should be considered through the BC Parks Impact Assessment process as Mt Seymour Resorts pursues specific projects included in the SRDP to balance recreation use with ecological protection.

2.9.3.1 Old-Growth Forests

Old-growth forests within the Study Area are highly complex ecosystems with multi-layered canopies, large trees, snags, fallen logs, and rich forest-floor communities. These features provide important habitat for cavity-nesting birds, bats, small mammals, fungi, mosses, lichens, and invertebrates. They also serve major carbon storage, hydrological, erosion-control, and water-

[7] The Roe Environmental Overview Assessment is available in the Appendix.

quality functions. The old forests within the CRA and Mount Seymour Provincial Park have significant conservation value and should be carefully integrated with future recreational planning.

2.9.3.2 Other Terrestrial Habitat of Significance

Cliff faces, talus slopes, rock outcrops, and wildlife trees provide important discrete habitat features. Cliffs and outcrops offer nesting and roosting areas for species such as raptors, while talus slopes provide shelter and thermal refugia for bats and American pika. Wildlife trees and snags support nesting birds, bats, small mammals, and invertebrates, and contribute coarse woody debris that sustains broader forest-floor food webs.

2.9.3.3 Watercourses, Lakes, and Wetlands

The CRA and adjacent areas contain permanent and intermittent streams, lakes, ponds, wetlands, seeps, and seasonally saturated areas that provide important aquatic and riparian habitat. These features support amphibians, birds, bats, black bears, and other wildlife, while also contributing to nutrient cycling, water filtration, carbon storage, flow moderation, and sediment control. Their importance is heightened by the area's relationship to the Seymour watershed and Metro Vancouver's drinking water supply. Some aquatic features may not be accurately mapped, including ephemeral streams and small wetlands, but may still have ecological value and legal protection. Future planning work should therefore identify and protect these features before undertaking in-stream or riparian works.

2.9.3.4 Birds

Many bird species breed within the Study Area and require special consideration during vegetation clearing or maintenance. Birds, their eggs, and occupied nests are protected under the BC Wildlife Act, and some species' nests, including bald eagle, peregrine falcon, and great blue heron, are protected year-round. Raptor breeding periods can extend from winter through late summer. Existing forests, edge habitats, shrubs, low vegetation, and buildings may all provide opportunities for nesting, foraging, and shelter.

2.9.3.5 Bats

Bat habitat should be treated as a key consideration because many BC bat species remain poorly understood and face threats from habitat loss, fragmentation, disturbance, wind turbines, and white-nose syndrome. The Study Area includes cliffs, talus, watercourses, lakes, forests, and buildings that may provide roosting, foraging, summer habitat, or overwintering opportunities. These habitats may support species such as little brown myotis.

2.9.3.6 Black Bears

Black bears are common within the CRA and surrounding parklands. The area provides valuable habitat, but increasing development and fragmentation on the North Shore may concentrate bear movement around the park boundary. Future development or intensified recreation could increase the potential for human-bear conflict, particularly where unsecured food, garbage, or other attractants are present. Planning should consider movement corridors, seasonal activity patterns, and bear-aware operating practices.

2.9.3.7 Amphibians

Wetlands, lakes, streams, riparian areas, woody debris, rock piles, and talus slopes provide suitable habitat for amphibians such as the northwestern salamander, Pacific treefrog, and coastal tailed frog. Riparian work, disturbance below high-water marks, and removal of potential overwintering

habitat may affect amphibians. Wetland and riparian areas should be treated as potential breeding and foraging habitats regardless of size or permanence.

2.9.3.8 Species at Risk

Several Species at Risk are present or potentially present in the Study Area. Birds and bats are most likely to be affected by vegetation clearing, habitat loss, or building demolition, particularly if work occurs during breeding periods. Species most likely to be encountered include barn swallow, band-tailed pigeon, olive-sided flycatcher, little brown myotis, coastal tailed frog, and clodius parnassian butterfly.

2.9.3.9 Other Wildlife

The CRA also supports mammals such as American pika, Douglas squirrel, snowshoe hare, and mule deer. These species contribute to seed dispersal, prey availability, and ecological balance. Habitat connectivity is essential, as fragmentation can restrict movement, reduce genetic exchange, and increase mortality.

2.10 Existing Mountain Facilities

2.10.1 Introduction

The primary winter attractions at MSR are the lift-serviced alpine skiing and snowboarding. Snowshoeing and tubing are secondary attractions, complementing the Resort's offering. In the summer, MSR offers eco-adventure camps for youth, and the area is open to the public for hiking, sightseeing, and wildlife viewing.

The following section describes Mt Seymour Resorts in its current configuration. Below, the existing skier capacity, the existing distribution of ski terrain in relation to the skier marketplace, the balance between uphill and downhill capacity, and the capacity of secondary winter and summer activities are detailed and discussed.

2.10.2 Skiing and Snowboarding

The existing lift-serviced mountain facilities comprise 4 ski lifts that access 41 ski trails over approximately 42 hectares (103 acres) (Figure 2-3a, 2-3b, 2-3c). Skiing and snowboarding are offered on the predominantly southern-facing slopes of Brockton and Mystery Peak and depend entirely on natural snowfall. These facilities have a Peak Comfortable Carrying Capacity (CCC) of approximately 1,717 skiers/boarders.

Peak Comfortable Carrying Capacity (Peak CCC) is the optimal number of skiers/snowboarders who can use the resort during the busiest period of the day, while ensuring a pleasant recreational experience without degrading the environment. At MSR, visitation throughout the day typically occurs in three waves – morning, afternoon, and evening – with guests spending an average of 4 hours skiing. The capacity of the lifts, trails, and facilities at MSR must be aligned with the busiest of these periods. At MSR, the morning period has typically been the busiest, followed closely by the afternoon, with the evening typically being the least busy. As such, Peak CCC is set by the morning visitation at MSR.

The Peak CCC of a lift-serviced resort results from analyzing and comparing its Uphill CCC and Downhill CCC for that period. The uphill capacity is a function of ski lift characteristics, the length of the guest's visit, and access. The downhill capacity is a function of the skiable area and acceptable skier densities defined by the skier skill class and the resort's target market. Ideally, Uphill and Downhill CCC are balanced for each chairlift and across the entire resort, though this is rarely achieved. As such, the Peak CCC for the Resort is determined to be the lower of the Uphill CCC and the Downhill CCC to ensure that both thresholds are respected and the guest experience is never compromised.

The estimation of the Peak CCC is the most important planning criterion for a resort. Based on the proper identification of the mountain's true capacity, all other related skier service facilities, such as restaurants, retail outlets, guest services, and parking, can be planned.

Mt. Seymour Resort
Resort Development Plan
2025

Legend

- Mt Seymour CRA
- Mount Seymour Provincial Park
- Existing Lifts
- Existing Terrain Parks
- Existing Ski Trails
- Existing Snowshoe Trails

Existing Glading

- Thin Glading
- Dense Glading

Planning by:

BHA
4-1005 Alpha Lake Road,
Whistler, BC, Canada V8E 0H5
Tel: 604 932 7002
email: bha@brentharley.com
website: www.brentharley.com

Prepared for:

Mt. Seymour Resort Ltd.
1700 Mt. Seymour Road
North Vancouver, BC, Canada V7G 1L3
Tel: 604 986 2261
email: snow@mtseymour.ca
website: www.mtseymour.com

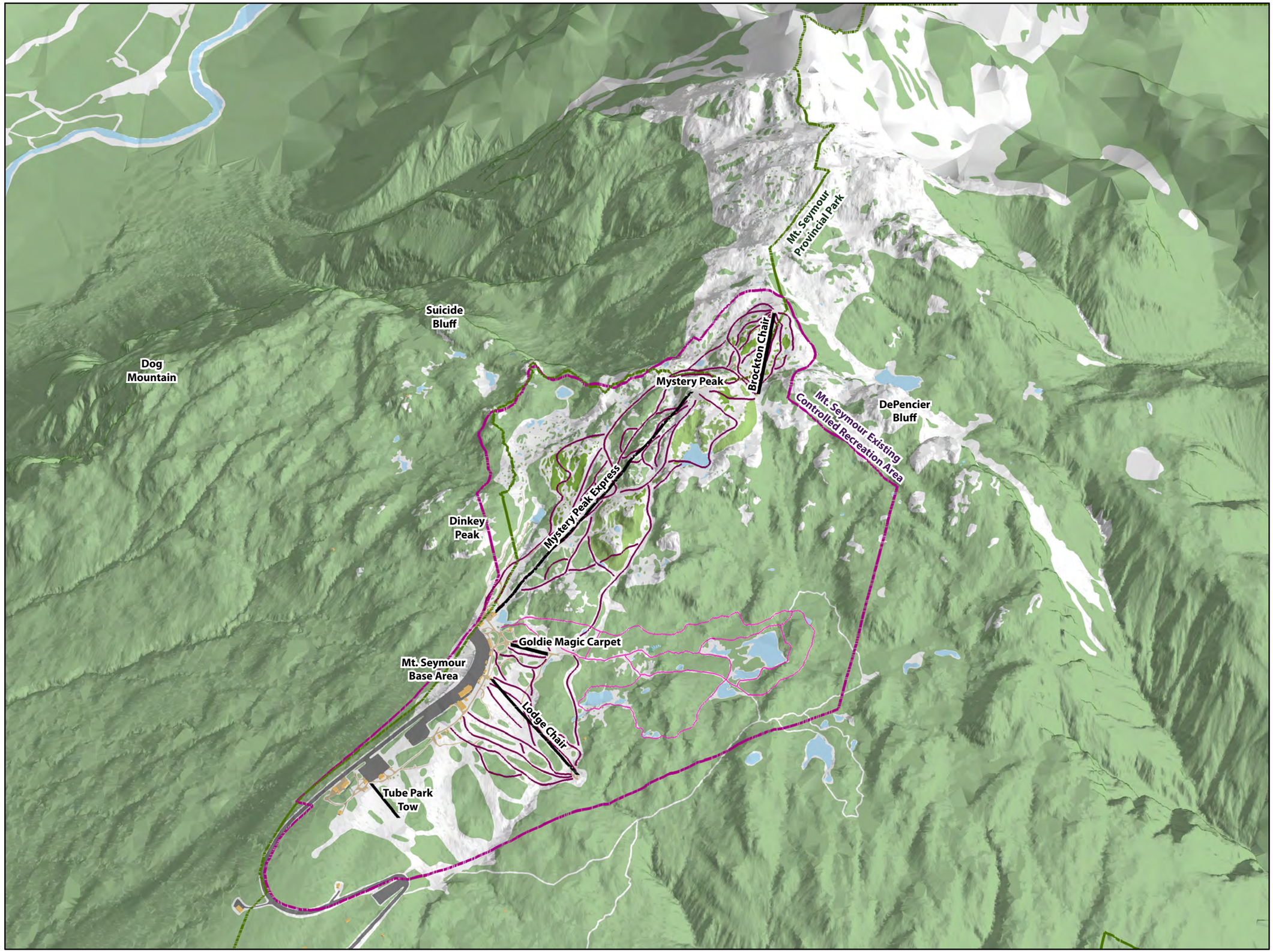
1:10,000

0 100 200 400 Meters

Existing Resort

Figure 2-3

This page has intentionally been left blank.



Mt. Seymour Resort
Resort Development Plan
2025

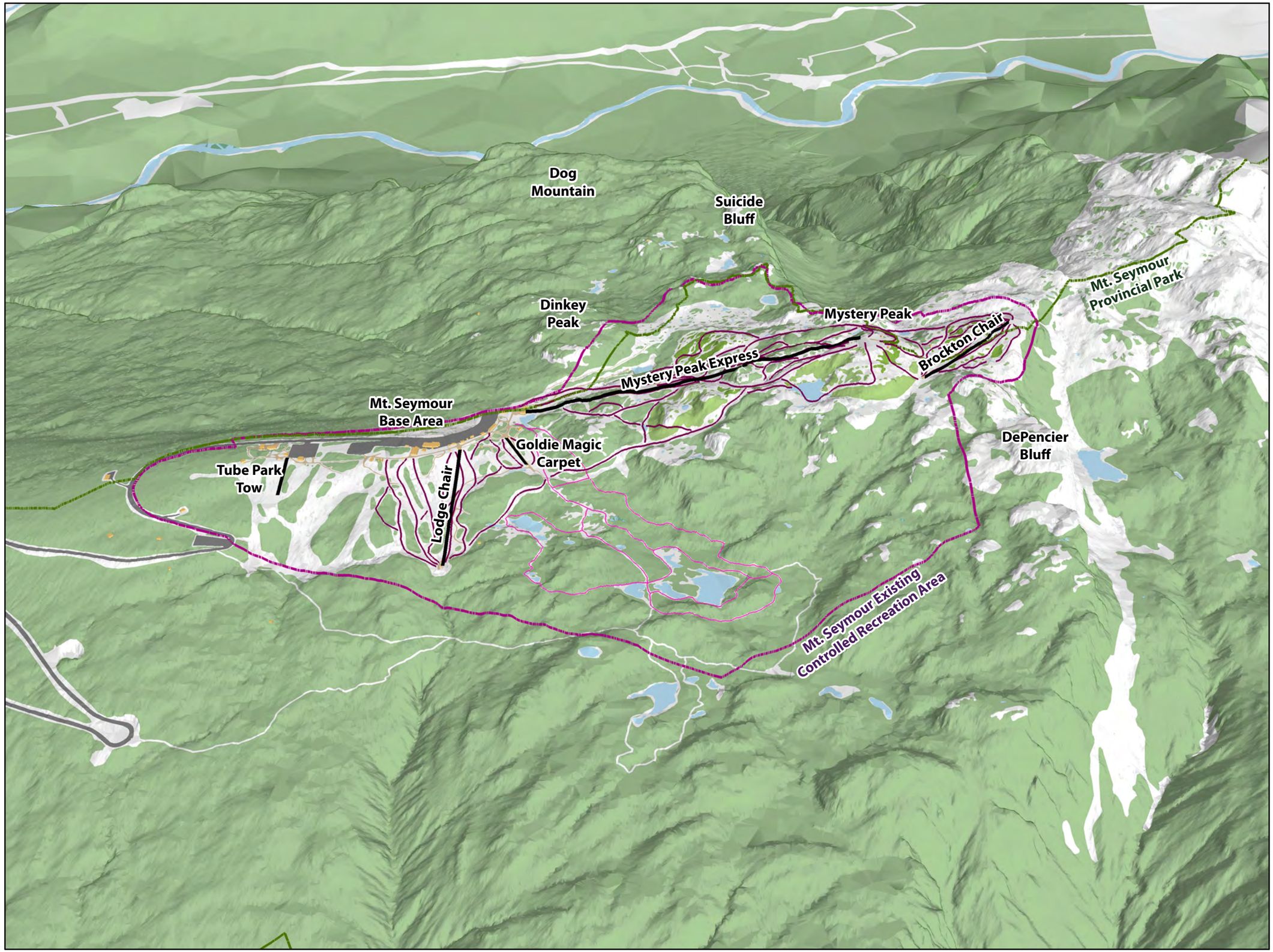
Planning by:
BHA
4-1005 Alpha Lake Road,
Whistler, BC, Canada V0N 1B1
Tel: 604 932 7002
email: bha@brentharley.com
website: www.brentharley.com

Prepared for:
Mt. Seymour Resort Ltd.
1700 Mt. Seymour Road
North Vancouver, BC, Canada V7G 1L3
Tel: 604 986 2261
email: snow@mtseymour.ca
website: www.mtseymour.com

Existing Resort 3D View

Figure 2-3b

This page has intentionally been left blank.



Mt. Seymour Resort
Resort Development Plan
2025

Planning by:
BHA
4-1005 Alpha Lake Road,
Whistler, BC, Canada V0N 1B1
Tel: 604 932 7002
email: bha@brentharley.com
website: www.brentharley.com

Prepared for:
Mt. Seymour Resort Ltd.
1700 Mt. Seymour Road
North Vancouver, BC, Canada V7G 1L3
Tel: 604 986 2261
email: snow@mtseymour.ca
website: www.mtseymour.com

Existing Resort 3D View

Figure 2-3c

This page has intentionally been left blank.

Mt. Seymour Resort
Resort Development Plan
2025

Brockton Pod

Mystery Peak Pod

Goldie Pod

Lodge Pod

BROCKTON CHAIR LIFT

MYSTERY PEAK EXPRESS

GOLDIE MAGIC CARPET

LODGE CHAIR LIFT

TUBE PARK TOW

De Pencier Lake

Goldie Lake

Legend

- Mt Seymour CRA
- Mount Seymour Provincial Park
- Existing Lifts

Existing Ski Pods

- Brockton Pod
- Goldie Pod
- Lodge Pod
- Mystery Peak Pod

Planning by:

BHA

4-1005 Alpha Lake Road,
Whistler, BC, Canada V8E 0H5
Tel: 604 932 7002
email: bha@brentharley.com
website: www.brentharley.com

Prepared for:

Mt. Seymour Resort Ltd.
1700 Mt. Seymour Road
North Vancouver, BC, Canada V7G 1L3
Tel: 604 986 2261
email: snow@mtseymour.ca
website: www.mtseymour.com

1:10,000

0 100 200 400 Meters

Existing Ski Pods

Figure 2-4

This page has intentionally been left blank.

2.10.3 Existing Uphill Capacity

Mt Seymour Resorts has 4 uphill conveyances, including 1 high-speed quad chairlift, 1 fixed-grip quad chairlift, 1 double chairlift, and 1 carpet lift. In addition, the Resort runs a magic carpet to service the tube park, but this is not considered in Uphill CCC calculations as it does not service skiers.

The Uphill CCC for each lift is calculated by considering the vertical serviced, the lift capacity, the typical length of a guest visit (4 hrs), the lift loading efficiency, access reduction and the vertical skier demand as determined by the mix of skier types using the lift. The cumulative Uphill CCC for each lift yields the total Uphill CCC for the resort.

The ski lifts at MSR have a peak period uphill capacity of approximately 1,715 skiers. Figure 2-4 and Table 2-4 illustrate and specify the existing chairlifts at MSR.

Table 2-4. Summary of Uphill CCC

Lift Name	Lift Type	Vertical Drop (m)	Slope Length (m)	Hourly Capacity (Theor.)	Hourly Capacity (Actual)	Weighted Vertical Demand	Loading Efficiency	Guest Visit (hrs)	Access Reduction	Uphill CCC
Brockton Chair	D	75	341	1,200	1,200	1,938	95%	4	0%	176
Goldie Magic Carpet	MC	31	129	1,500	1,500	844	80%	4	0%	176
Mystery Peak Express	D4C	205	1,072	2,200	1,800	1,451	85%	4	1%	902
Lodge Chair	D	86	433	2,000	1,600	1,074	90%	4	0%	461
Total			1,975	6,900	6,100					1,717

2.10.4 Existing Downhill Capacity

Mt Seymour Resorts offers 41 ski trails, several gladed areas, and four terrain parks, amounting to over 42 ha of skiable terrain. Of these, 13 trails and all four terrain parks are open until 9 p.m. every day for night skiing.

To accurately analyze MSR's downhill capacity, BHA created a detailed 3D terrain model of the study area. The existing trail network was overlaid onto 5-metre contour data and organized into groups of trails or 'pods' associated with each ski lift. Trails that cross into one or more pod areas are generally associated with the lift at which they return. Some ski pods may be associated with one or more lifts, depending on the mountain's flow and layout.

With the network of existing ski trails assembled by ski pod, BHA categorized the existing ski trails by skier ability level. The North American standard for classifying ski trails is easiest (green circle), more difficult (blue square), and most difficult (black diamond). BHA further classified the existing ski trails based on the criteria detailed in the BC All Season Resort Guidelines (ASRG) (Table 2-5).

Table 2-5: Ski Trail Classification by Gradient

Skill Class	Range of Acceptable Gradients (%)
Beginner	8 - 15
Novice	15 - 25
Low Intermediate	25 - 35
Intermediate	35 - 45
Advanced	45 - 60
Expert	60 - 80
Extreme	80+

A detailed list of the existing ski runs at MSR is presented in Table 2-6, and Figure 2-5 illustrates the existing ski trails inventory at MSR. It is worth noting that the classification of the ski trails using the ASRG criteria may differ from the ski trail classification applied by MSR. To ensure consistency with the broader ski industry and the skier marketplace, BHA uses the ASRG criteria for ski trail analysis.

Table 2-6. Existing Ski Trail Network

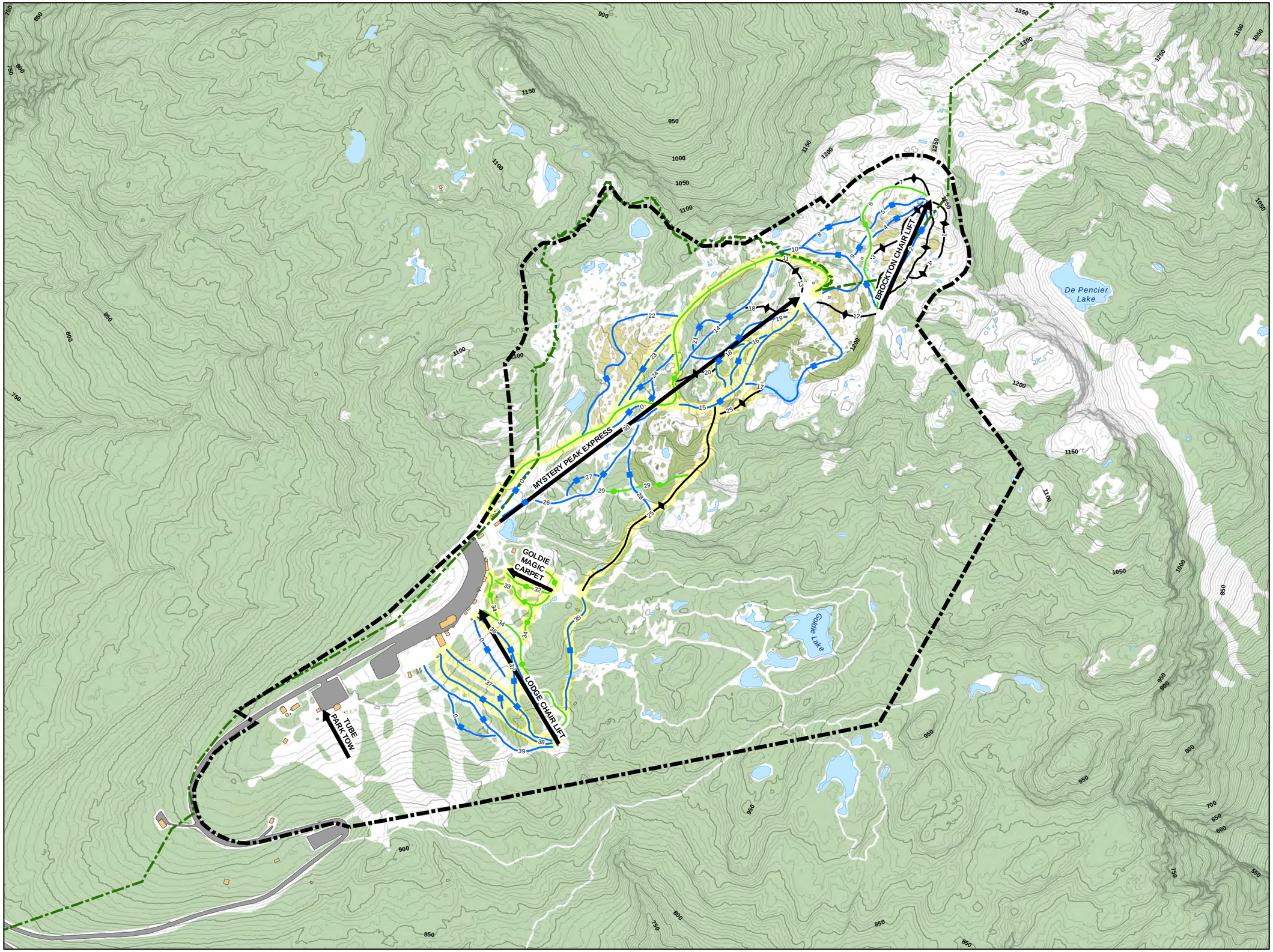
Run Number	Run Name	Slope Length (m)	Maximum Slope (%)	Average Slope (%)	Average Width (m)	Trail Area (ha)	Skill Class
Brockton Chair							
BR1	Exit 22	77	23	14	15	0.1	Novice
BR2	Sammys Express	195	30	23	20	0.4	Novice
BR3	Upper Sterns Stairway	185	59	24	40	0.7	Intermediate
BR4	Lower Sterns Stairway	83	21	16	35	0.3	Novice
BR5	Sterns Stairway	310	58	23	25	0.8	Intermediate
BR6	Hang Ten	332	54	23	25	0.8	Intermediate
BR7	Maverick	199	36	29	25	0.5	Low Intermediate
BR8	Sammy J	185	70	32	15	0.3	Advanced
BR9	Lower Cliff House	89	24	16	30	0.3	Novice
BR10	Brockton Gully	507	46	15	15	0.8	Intermediate
BR11	Sunshine Ridge	127	30	24	35	0.4	Novice
BR12	Cliff House	287	75	25	20	0.6	Advanced
BR13	Lower Backdoor	76	16	12	10	0.1	Novice
Int Glade						0.2	Int Glade
Adv Glade						0.6	Adv Glade
Total Skiable Area						**6.8**	

Run Number	Run Name	Slope Length (m)	Maximum Slope (%)	Average Slope (%)	Average Width (m)	Trail Area (ha)	Skill Class
Goldie Magic Carpet							
GC1	Goldie Meadows	144	17	14	35	0.5	Novice
GC2	Lower Rookies	99	17	13	20	0.2	Novice
GC3	Mushroom	192	16	10	15	0.3	Novice
GC4	Flower Basin	135	14	13	30	0.4	Beginner
GC5	Upper Rookies	127	20	12	10	0.1	Novice
Total Skiable Area						**1.5**	

Run Number	Run Name	Slope Length (m)	Maximum Slope (%)	Average Slope (%)	Average Width (m)	Trail Area (ha)	Skill Class
Mystery Peak Express							
MP1	Devils Drop	127	67	34	15	0.2	Advanced
MP2	Lower Unicorn	343	27	14	20	0.7	Novice
MP3	Upper Boomerang	155	50	18	10	0.2	Intermediate
MP4	Sling Shot	189	30	14	15	0.3	Novice
MP5	Crowfoot	122	41	20	10	0.1	Low Intermediate
MP6	Gun Barrel	401	30	13	15	0.6	Novice
MP7	Tower Line	538	37	19	30	1.6	Low Intermediate

Run Number	Run Name	Slope Length (m)	Maximum Slope (%)	Average Slope (%)	Average Width (m)	Trail Area (ha)	Skill Class
MP8	Upper Unicorn	141	45	23	15	0.2	Intermediate
MP9	Unicorn	687	45	23	25	1.7	Low Intermediate
MP10	Upper Earls	61	22	20	15	0.1	Novice
MP11	Earls	183	44	22	15	0.3	Low Intermediate
MP12	Petes Run	560	22	16	20	1.1	Novice
MP13	Elevator Shaft	250	30	20	25	0.6	Novice
MP14	Nutcracker	134	66	40	15	0.2	Advanced
MP15	Looper Express	325	82	32	20	0.7	Expert
MP16	Mystery Lake	544	38	13	30	1.6	Low Intermediate
MP17	Friendly Nut House	192	37	25	20	0.4	Low Intermediate
MP18	Northlands	476	37	22	25	1.2	Low Intermediate
MP19	Wonger	132	32	19	10	0.1	Novice
MP20	Velvet Gully	413	30	17	20	0.8	Novice
MP21	Noels Flight	139	54	36	15	0.2	Intermediate
MP22	Backdoor	419	43	13	10	0.4	Low Intermediate
MP23	Manning	1,462	31	15	20	2.9	Novice
MP24	Scooter	180	42	27	35	0.6	Low Intermediate
MP25	Lower Boomerang	98	14	13	25	0.2	Beginner
MP26	Lower Friendly Nut House	175	27	17	25	0.4	Novice
MP27	Upper Northlands Terrain Park	117	25	17	35	0.4	Novice
MP28	Lower Northlands Terrain Park	125	17	12	50	0.6	Novice
Int Glade						1.8	Int Glade
Adv Glade						1.9	Adv Glade
Exp Glade						3.3	Exp Glade
Total Skiable Area						**25.6**	

Run Number	Run Name	Slope Length (m)	Maximum Slope (%)	Average Slope (%)	Average Width (m)	Trail Area (ha)	Skill Class
Lodge Chairlift							
L1	Rookies	470	26	17	30	1.4	Novice
L2	Trapper Johns Cut	129	18	15	15	0.2	Novice
L3	Seymour 16s Cut	38	12	12	40	0.2	Beginner
L4	Cabin Trail	471	33	19	25	1.2	Novice
L5	Seymour 16s	435	37	20	30	1.3	Low Intermediate
L6	Trapper Johns	415	34	21	35	1.5	Novice
L7	Chucks Place	422	29	20	25	1.1	Novice
L8	Young Guns	184	30	25	45	0.8	Novice
L9	Mistletoe	185	20	17	20	0.4	Novice
Total Skiable Area						**7.6**	



MT SEYMOUR

Mt. Seymour Resort
Resort Development Plan
2025

Legend

- Mt Seymour CRA
- Mt. Seymour Provincial Park
- Existing Lifts
- Existing Vegetation

Existing Ski Trails

Class

- Beginner
- Intermediate
- Advanced
- Lighted Ski Trails

Existing Glading

- Thin Glading
- Dense Glading

Planning by:

BHA

4-1005 Alpha Lake Road,
Whistler, BC, Canada V8E 0H5
Tel: 604 932 7002
email: bha@brentharley.com
website: www.brentharley.com

Prepared for:

MT SEYMOUR

Mt. Seymour Resort Ltd.
1700 Mt. Seymour Road
North Vancouver, BC, Canada V7G 1L3
Tel: 604 986 2261
email: snow@mtseymour.ca
website: www.mtseymour.com

1:10,000

0 100 200 400 Meters

Existing Lifts, Trails, and Glading

Figure 2-5

This page has intentionally been left blank.

Ski trail capacity is a function of the acceptable density of skiers per hectare, rated by skier skill class. Typically, the range of acceptable densities for ski trails by skill class is as follows:

Table 2-7: Acceptable Densities of Ski Trails for Various Skill Classes

Skill Class	Skier Density/Ha*	MSR Applied Density/Ha
Beginner	35 - 75	75
Novice	30 - 60	60
Low Intermediate	20 - 40	40
Intermediate	15 - 30	30
Advanced	10 - 20	20
Expert	5 - 10	10

*The acceptable density of skiers on gladed trails is generally 15% to 30% of the comparable skier skill class, depending on the spacing of the trees and the acceptable densities of the trails around them.

Successful regional resorts on the periphery of major metropolitan centres excel at balancing an authentic mountain experience with high visitor demand. While urban skiers are willing to accept higher densities in exchange for the convenience created by the ease of access, regional resorts must ensure the skiing experience is not degraded by overuse. Where demand for skiing is very high, it is best to set acceptable trail densities to the highest level to ensure the resort develops and maintains the capacity to handle high demand well into the future.

The issue of what is acceptable, what is expected, and what is desirable must be carefully considered. Regional ski resorts, such as MSR, must continually assess the demands of the skier marketplace and adjust the winter experiences on offer accordingly.

Mt Seymour Resorts is a regional resort serving a large, expanding day-use skier marketplace. Demand for skiing at MSR is characterized by large fluctuations between weekdays and weekends, with many visitors travelling to MSR on peak weekends. Accordingly, while acceptable densities during the week are likely low, urban skiers are likely to accept a far more crowded skiing experience on peak weekends.

Aligned with the high skiing demand created by its proximity to Metro Vancouver and its vision for the future, BHA applied high skier densities to the analysis (see Table 2-8).

By applying these densities to the existing trail and gladed areas at MSR, BHA calculated the capacity of the existing ski trails. Table 2-8 outlines the trail attributes, highlighting skier skill classes and capacity within each ski pod and for the entire existing ski trail development at MSR. The total existing trail capacity is 1,723 skiers at one time.

Table 2-8. Existing Downhill CCC of Mt. Seymour Ski Resort

Pod	Vertical (m)	Skiable Area (ha)	Downhill Capacity by Skill Class						Total Downhill Capacity
			Beginner	Novice	Low Intermediate	Intermediate	Advanced	Expert	
Brockton Chair (POD BR)	75	7	0	95	20	95	22	0	232
Goldie Magic Carpet (POD GC)	18	2	30	67	0	0	0	0	98
Mystery Peak Express (POD MP)	205	26	18	526	319	35	23	20	941
Lodge Chair (POD L)	86	8	11	389	52	0	0	0	453
Totals		**42**	60	1,077	391	130	45	20	1,723

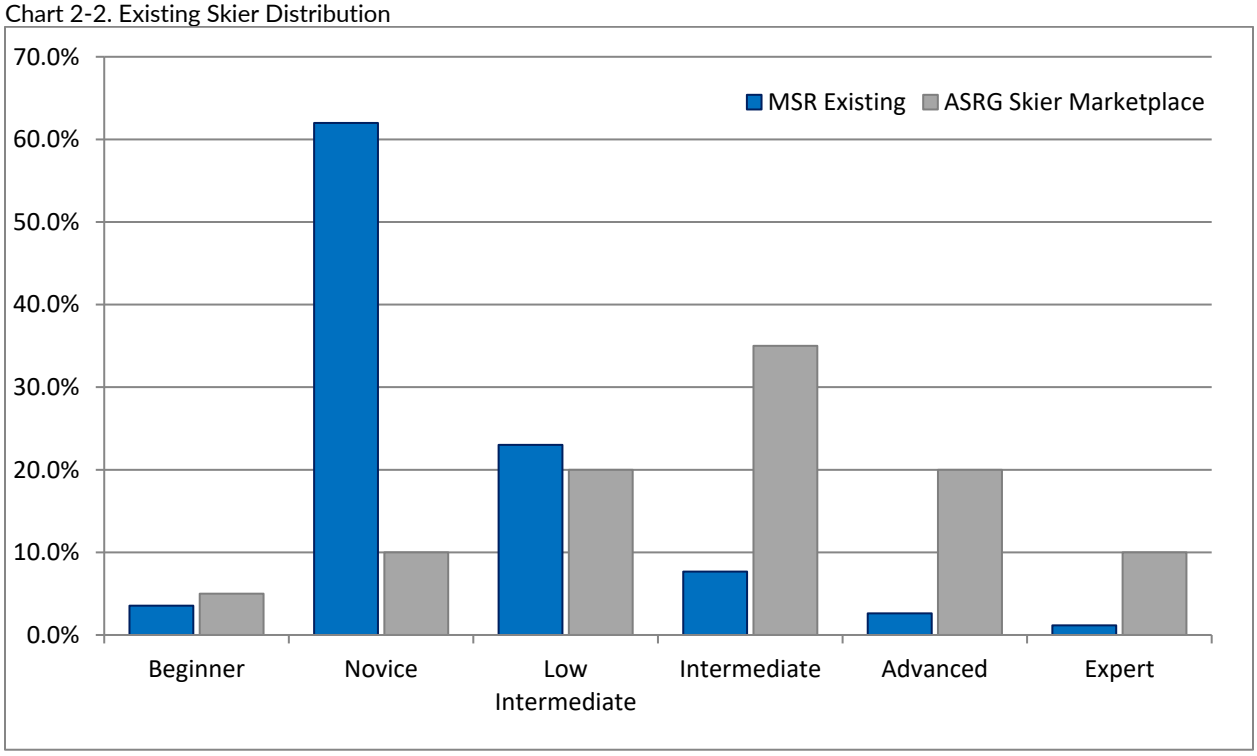
2.10.5 Existing Terrain Distribution Analysis

The existing ski trails were assessed for consistency with the accepted distribution of the skier marketplace. As defined in the All-Season Resort Guidelines, the accepted distribution is used as a benchmark to compare existing and proposed skier distribution within this plan. This is illustrated in Table 2-9 and Chart 2-2.

Table 2-9. Existing Terrain Distribution by Skier Skill Class

Market Distribution	Skier Marketplace	MSR Existing Distribution
Beginner	5%	3.5%
Novice	10%	62.5%
Low Intermediate	20%	22.7%
Intermediate	35%	7.6%
Advanced	20%	2.6%
Expert	10%	1.1%

Chart 2-2. Existing Skier Distribution



Regarding whom the existing ski area development caters, 66% of the terrain serves Novice and Beginner skiers, 30.3% serves Low Intermediate and Intermediate skiers, and just 3.7% is suited to Advanced and Expert skiers. It is important to note that skier marketplace distribution is typically 15% Beginner, 55% Intermediate and 30% Advanced. As illustrated in the Chart above, the results of the analysis clearly show that, when MSR is compared to the skier marketplace, it has an insufficient offering of intermediate, advanced, and expert terrain. Future terrain development and expansions (see Section 4.0) have been designed to address this imbalance.

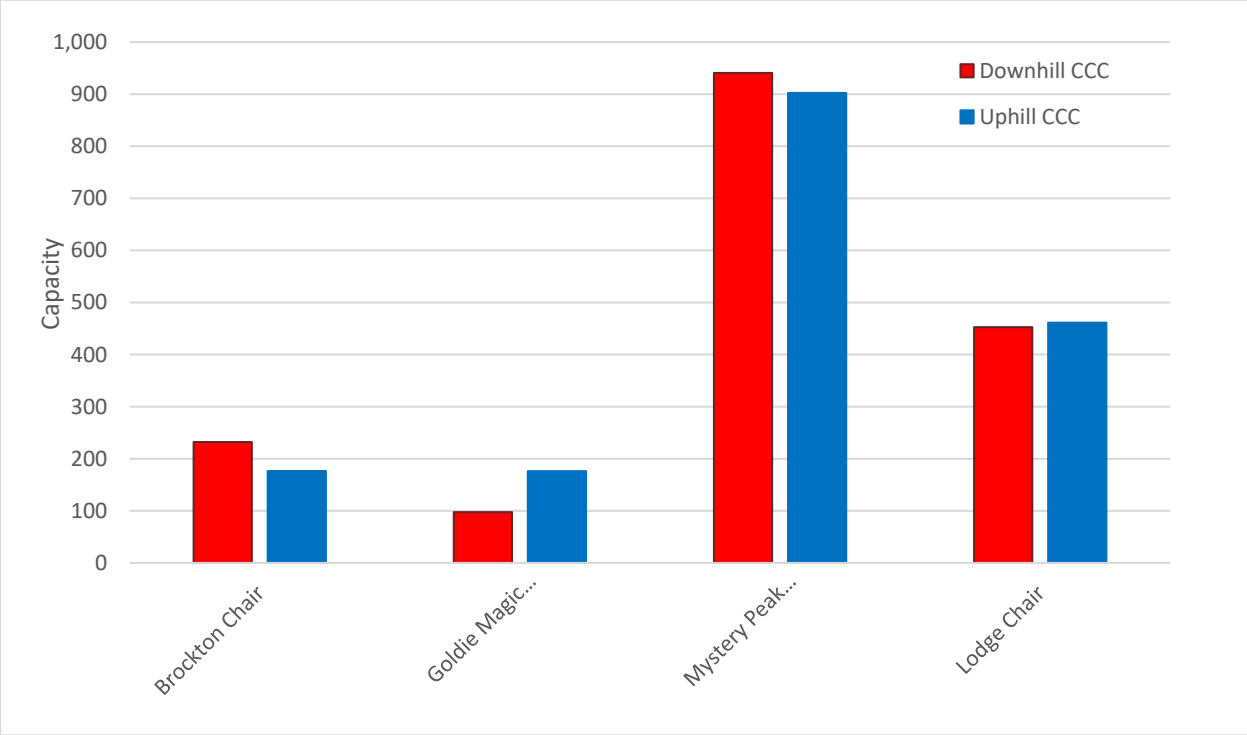
2.10.6 Existing Lift Balance Assessment

At a well-balanced ski resort, the downhill capacity of the ski trails should match the Uphill CCC of the ski lifts, resulting in a balanced ski product. This should hold over the entire resort and for each ski pod area. By comparing the Uphill CCC and Downhill CCC for each pod, BHA identified points of imbalance. Subsequently, improvements can be made to rectify the imbalances and improve the overall quality of experience at the resort. Table 2-10 and Chart 2-3 outline MSR's existing lift and trail balance.

Table 2-10. Uphill and Downhill CCC

Lifts	Uphill CCC	Downhill CCC
Brockton Chair	176	232
Goldie Magic Carpet	176	98
Mystery Peak Express	902	941
Lodge Chair	461	453
	1,717	1,723

Chart 2-3. Existing Lift Balance Assessment



As illustrated, overall, the lift capacities of the existing ski lifts at MSR are reasonably close to downhill CCC. However, the Brockton Chair currently underserves the terrain it accesses based on the acceptable skier densities. From the skier's perspective, less crowded slopes are a benefit, which is offset by fewer runs due to the lower relative uphill capacity. In contrast, the Goldie Magic Carpet has more uphill than downhill capacity. However, as this lift is dedicated to beginner skiers less concerned with crowding, this imbalance is not as pressing as it might appear (Chart 2-3).

2.10.7 Existing Peak Comfortable Carrying Capacity

As illustrated in Table 2-10, based on the existing lift configuration, the peak period uphill capacity of the ski lifts is 1,717, and the downhill capacity of the ski trails is 1,723. As the downhill capacity of the trails is greater than the uphill capacity of the lifts, the Peak CCC of MSR's existing facilities is set at 1,717 skiers. Utilizing the lower of the two values as the resort Peak CCC ensures that neither the Uphill nor Downhill CCC is exceeded.

2.11 Additional Activities and the Balanced Resort Capacity

At resorts such as MSR, where the focus is primarily on skiing and snowboarding, calculating the lift and trail capacities becomes the most important planning variable. However, additional attractions that increase the resort's overall demand and capacity must also be accounted for. In today's competitive tourism market, it is becoming increasingly necessary for resort developers to provide a variety of on-mountain activities that complement and enhance the proposed area's alpine skiing product. The capacity of additional facilities and attractions, such as snowshoeing and tubing, must be calculated and added cumulatively to determine the total carrying capacity of the resort.

The concept of carrying capacity must incorporate and achieve a sense of balanced land use without overwhelming the site's physical or environmental limitations. Likewise, the perceived experience must be integrated into the determination of capacity. That is, the target market's expectations must be taken into account.

Just as there are limits to growth in terms of the actual size that an attraction can reach before it compromises the site's environmental integrity, there are thresholds beyond which the number of users, or the mix of user types, compromises the quality of experience that a resort offers. Again, a balance must be determined and adhered to. The objective is to calculate a "Balanced Resort Capacity".

The definition of the Peak Balanced Resort Capacity (BRC) is the optimum number of visitors that can utilize a resort's facilities during the resort's busiest period of the day in such a way that their recreational expectations are being met while the integrity of the site's physical and socio-cultural environment is maintained all year round. This number serves as the baseline figure for establishing annual capacity potential and utilization rates, as well as all development and market projections for the resort on a seasonal basis. Most importantly, the Peak BRC serves as the cornerstone in calculating the appropriate base area facilities (e.g., restaurant seating and washrooms) to be developed at the resort.

Snowshoeing

Mt Seymour Resorts maintains a network of 12 snowshoeing trails (5.6 km) adjacent to their downhill skiing operations. Visitors can rent snowshoes and take a range of snowshoe tours designed to get guests of all skill levels out into the mountains. The popularity of snowshoeing in Metro Vancouver has grown rapidly in recent years and is expected to continue. Snowshoeing offers guests who are unfamiliar with or uncomfortable with skiing or snowboarding an accessible and fun opportunity to experience nature in the winter. Snowshoeing accounts for approximately 200 additional guests at the resort at its busiest.

Tubing

Tubing offers families and those new to winter outdoor recreation opportunities to experience the mountain environment and play in the snow. It represents an easy entry point to engage with winter mountain recreation activities, requiring little equipment or skill. Tubing accounts for approximately 300 additional guests at the Resort at its busiest. It is important to note that the existing tube park is relatively small and steep, and often at capacity on weekends. Section 4 of the SRDP presents an alternative alignment with greater capacity and gentler grades.

Passive Guests

In addition to active visitors, non-participating guests must be considered when determining space-use requirements and parking at the Resort. This includes parents, grandparents, or families that have come to watch their children learn to ski in the Bear's Den or hired drivers for group excursions to the mountain. Given the proximity to Metro Vancouver's population and the sizable number of residents unfamiliar with skiing and snowplay, this translates to another 15% to 25% of guests at MSR. Previous surveys at MSR indicate that 20% of guests at any given time are passive.

Existing Summer Activities

Mt Seymour Resorts hosts eco-adventure camps every summer, providing unique, immersive wilderness experiences for youth (ages 5-14) from across the region. Camps run each week from early July to late August. The on-mountain area is also open to the public throughout the summer and offers a range of self-guided hiking, sightseeing, and wildlife viewing options. Both the ski trails and snowshoeing trails have proven popular with locals from Metro Vancouver seeking a summer day in the mountains.

The success of MSR to this point has relied predominantly on winter recreation activities. However, as part of the planning process and to reaffirm the Vision for MSR, the activities on offer need to be expanded to all seasons. The details of the summer resort experience are discussed further in Section 4.

2.12 Existing Peak Balanced Resort Capacity

The Peak BRC of the activities and attractions at a resort is the baseline for determining the size of all necessary supporting facilities, such as restaurants, equipment rental, retail outlets, resort services, parking, day-use facilities, and services. Adding the capacity of the attractions and passive guests, the Peak BRC at MSR is calculated to be 2,660 guests per day (Table 2-11).

Table 2-11. Existing Peak Balanced Resort Capacity

Total Mtn CCC	**1,717**
Additional Activities (Winter)	
Snowshoe	200
Snowplay (Tubing/Tobogganing)	300
Total Additional	500
Total Facility Capacity	2,217
Add Passive Guests (20% of Capacity)	443
BRC	**2,660**

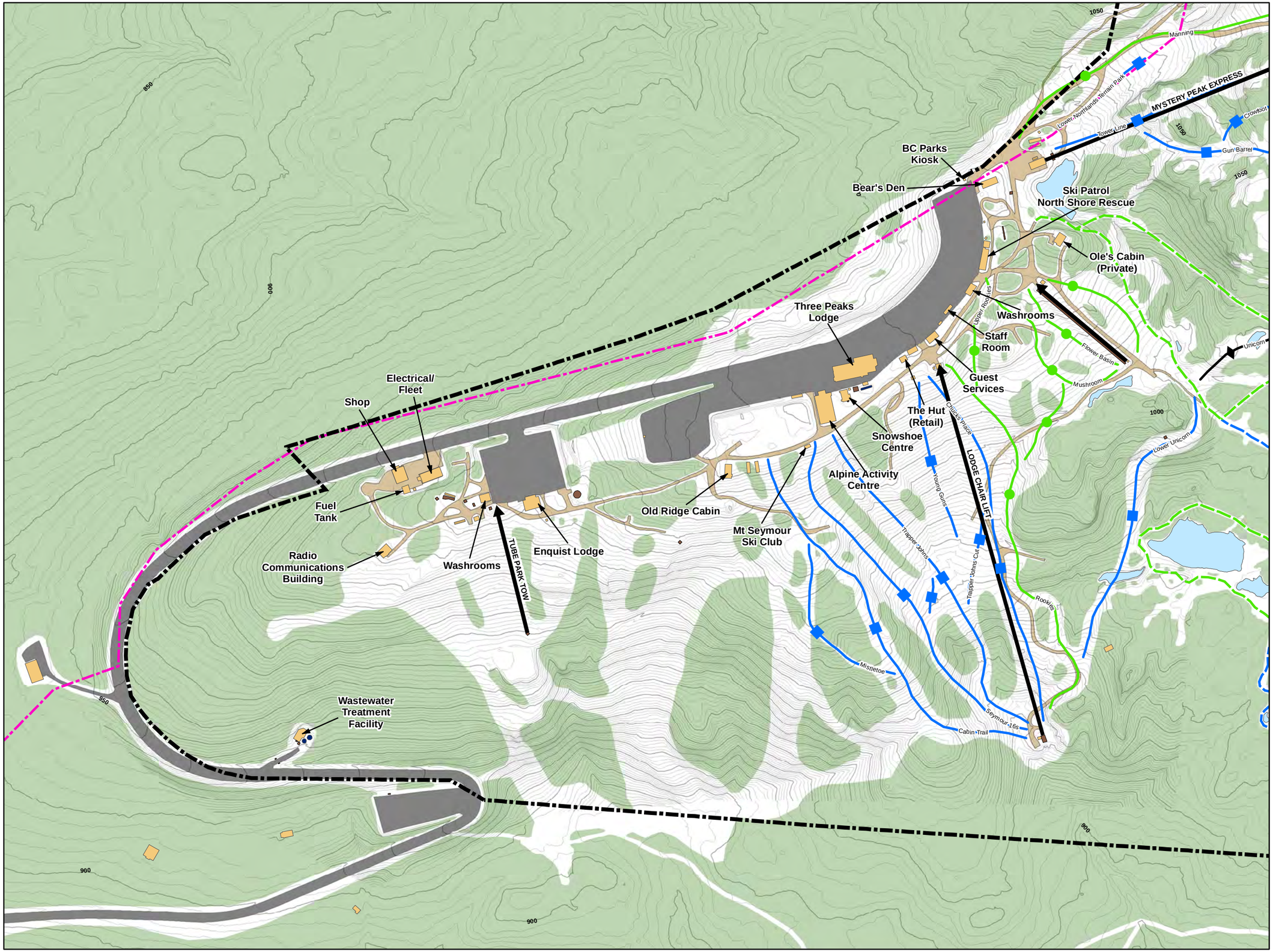
2.13 Existing Base Area

2.13.1 Existing Skier-Related Built Space

Skier-related built space provides the expected and required services for a ski resort to function properly during the skiing day. These services include all built space (e.g., restaurants, retail, equipment rental, washrooms, ski patrol, lockers, resort information, administration, etc.), catering to day-use skiers.

The core of the MSR base area comprises the Three Peaks Lodge, Alpine Activity Centre, and Enquist Lodge, which serve day-use guests throughout the day. The rest of the base area includes parking lots, guest services, the Hut retail centre, the snowshoe centre, ski patrol, and the maintenance building (Figure 2-6).

Mt. Seymour Resort
Resort Development Plan
2025



Legend

- Controlled Recreation Area
- Mt. Seymour Provincial Park
- Existing Lifts

Existing Ski Trails

Class

- Beginner
- Intermediate
- Advanced

Existing Snowshoe Trails

Difficulty

- Beginner
- Intermediate
- Advanced

Planning by:

BHA

4-1005 Alpha Lake Road,
Whistler, BC, Canada V8E 0H5
Tel: 604 932 7002
email: bha@brentharley.com
website: www.brentharley.com

Prepared for:

Mt. Seymour Resort Ltd.
1700 Mt. Seymour Road
North Vancouver, BC, Canada V7G 1L3
Tel: 604 986 2261
email: snow@mtseymour.ca
website: www.mtseymour.com

1:4,000

0 25 50 100 Meters

Base Area Existing Conditions

Figure 2-6

This page has intentionally been left blank.

The built space at MSR, including restaurants, bars, rental, retail, washrooms, and guest services, totals about 32,000 square feet (Table 2-12).

Table 2-12. Space Use Inventory (ft^2)

Service/Function	Alpine Activity Centre	Enquist Building	Three Peaks Lodge	Guest Services	Patrol Hut	The Hut	Snowshoe Centre	Bear's Den	Ridge Cabin	Washroom Buildings	Staff Room (Trailer)	Storage Containers	Total (sq. ft.)
Restaurants and Related Facilities													
Restaurant Seating	0	1,110	2,472	0	0	0	0	0	0	0	0	0	3,582
Kitchen/Scramble	341	200	1,191	0	0	0	0	0	0	0	0	0	1,732
Bar/Lounge Seating	0	0	1,216	0	0	0	0	0	0	0	0	0	1,216
Subtotal	**341**	**1,310**	**4,879**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6,530**
Retail													
Equipment Rental/Repair	5,195	0	0	0	0	0	1,025	298	0	0	0	0	6,518
Retail	110	0	0	0	0	400	0	409	0	0	0	0	919
Subtotal	**5,305**	**0**	**0**	**0**	**0**	**400**	**1,025**	**707**	**0**	**0**			**7,437**
Skier Services													
Washrooms	325	185	486	0	0	0	0	0	0	1,900	0	0	2,896
Ski School	117	0	0	0	0	0	0	0	0	0	0	0	117
Ski Patrol/First Aid	0	0	0	0	1,037	0	0	0	0	0	0	0	1,037
Public Lockers	26	0	0	0	0	0	0	442	0	0	0	0	468
Ticket Sales	115	50	0	387	0	0	0	0	0	0	0	0	552
Subtotal	**583**	**235**	**486**	**387**	**1,037**	**0**	**0**	**442**	**0**	**1,900**	**0**	**0**	**5,070**
Operations/Storage													
Administration	2,121	600	1,300	184	77	0	0	81	0	0	0	0	4,363
Employee Lounge / Lockers	250	300	0	25	0	0	0	94		0	500	0	1,169
Subtotal	**2,371**	**900**	**1,300**	**209**	**77**	**0**	**0**	**175**	**0**	**0**	**500**	**0**	**5,532**
Back of House													
Mechanical/Furnace	476	147	361	50	70	24	56	72	57	101	0	0	1,412
Storage Space	650	400	336	372	236	65	65	65	1,100	65	0	1,400	4,754
Circulation, Walls, Waste	486	150	368	51	71	24	57	73	58	103	0	0	1,442
Subtotal	**1,613**	**696**	**1,065**	**473**	**377**	**113**	**178**	**210**	**1,214**	**270**	**0**	**1,400**	**7,608**
Total Ski Related Space	**10,213**	**3,141**	**7,729**	**1,069**	**1,491**	**513**	**1,203**	**1,534**	**1,214**	**2,170**	**500**	**1,400**	**32,177**

2.13.2 Space Use Requirements

To determine an appropriate mix and amount of built space, BHA compared the existing space use inventory to industry standards for ski resorts similar to MSR. Further, an MSR-specific perspective was applied to the space-use analysis to incorporate both actual and perceived base-area strengths and weaknesses. Overall, the objective is to identify any gross area deficiencies in the existing development that, once corrected, should make MSR a more balanced, enjoyable, and successful operation.

The space use requirements are directly related to the resort's Peak CCC and BRC. On average, using an existing Peak CCC of 1,717 and BRC of 2,660 visitors, the current 32,000 ft^2 of developed space is only approximately 58% of what should be in place to balance the base-area facilities with the capacity of the on-mountain attractions (Table 2-13).

Table 2-13. Space Use Analysis (ft^2)

		Peak CCC	1,717	
		Peak BRC	2,660	
Service/Function	**Existing Space (sq ft)**	**Space Required (sq ft)**	**Difference (sq ft)**	**% of Required**
Restaurants and Related Facilities				
Restaurant	3,582	11,452	-7,870	31%
Kitchen/Scramble	1,732	5,268	-3,536	33%
Bar/Lounge	1,216	2,863	-1,647	42%
Subtotal	**6,530**	**19,583**	**-13,053**	**33%**
Retail				
Equip Rental/Repair	6,518	9,977	-3,459	65%
Retail Sales	919	2,290	-1,371	40%
Subtotal	**7,437**	**12,268**	**-4,831**	**61%**
Skier Services				
Washrooms	2,896	2,938	-42	99%
Ski School	117	1,201	-1,084	10%
Ski Patrol/First Aid	1,037	924	113	112%
Public Lockers	468	1,663	-1,195	28%
Ticket Sales	552	554	-2	100%
Subtotal	**5,070**	**7,280**	**-2,210**	**70%**
Operations				
Administration	4,363	3,672	691	119%
Employee Lockers/Lounge	1,169	2,771	-1,602	42%
Subtotal	**5,532**	**6,444**	**-912**	**86%**
Back of House				
Mechanical/Furnace	1,412	2,734	-1,322	52%
Storage	4,754	3,190	1,564	149%
Circulation, Walls, and Waste	1,442	3,646	-2,204	40%
Subtotal	7,608	9,571	-1,963	79%
Total Built Space	**32,177**	**55,145**	**-22,968**	**58%**

This analysis suggests that specific base area functions can be improved. Future base area development should address key areas such as the restaurant and kitchen, and the washrooms.

Restaurant, Pub, and Kitchen

At present, MSR offers approximately one-third the space needed for restaurants, pubs and kitchens. This includes cafeterias, coffee shops, restaurants, 'brown bag' lunchrooms and the supporting food preparation and service space. Aside from serving as a place to refuel between runs or activities, these areas are a primary space for socializing and enjoying the mountain environment. Further, a range of food and beverage services, from coffee shops to restaurants, can be a major contributor to the financial sustainability of resort operations. The lack of restaurant, pub, and kitchen space was addressed to the greatest degree possible in the Resort Concept presented in Section 4.

Ski School

MSR is where Vancouver learns to ski, and its ski school programs are a core part of its services to guests, its operational viability, and its reputation and identity within the regional marketplace. Providing sufficient space for guests and the administration of programming is key to a well-functioning ski school. Based on the current experience at MSR, it should increase the space dedicated to the ski school by approximately 1,000 ft^2.

Rentals

The rental area at MSR often operates above its capacity, and the lack of space is evident in Table 2-13. Ski rentals go hand in hand with ski school programs and MSR's focus on learning and skier skill progression. To meet existing demand and continue supporting the ski school and skiers, MSR needs to nearly double its current rental area. The additional space will not only allow for more equipment and a greater range of equipment but also provide an improved and expedited experience for guests eager to get out on the slopes.

Employee Lockers and Lounge

The staff community at MSR is central to its identity and to its ability to continue providing a quality guest experience. Whether it is the parking attendants, ski instructors, lift attendants, or kitchen team, their interactions with guests come to define the experience for guests. Ensuring staff have a comfortable place to rest, fuel up, and transition at the beginning and end of their shifts is critical to supporting them so they can support the guests. Currently, staff space is at a premium, and MSR should add approximately 1,600 ft^2 to support its workforce.

2.13.3 EXISTING PARKING

The day-use parking lots currently have a capacity for approximately 823 cars at any time (Table 2-14). From past surveys, MSR has established that on average each car contains 2 resort guests. At 2 people per car, this equates to 1,646 resort guests at any time on a full day. This does not include parking stalls outside the CRA dedicated to Park users. These are the jurisdiction of BC Parks, and while MSR manages these lots under contract from BC Parks, it cannot prescribe parking expansions or the reorganization of lots beyond its CRA.

Experience shows that the parking lots in their existing configurations are insufficient on peak days throughout the winter. The reservation system implemented by MSR helps reduce parking pressure by limiting guest visits to 4 hours during peak periods. This window aligns with the typical length of stay at MSR, so it does not place an undue constraint on most guests. While the reservation system effectively reduces MSR's current parking challenges, the growing interest in winter and summer recreation at MSR and the potential to capitalize on that interest with new and expanded terrain will place increasing pressure on the limited parking areas. The base area concept in Section 4 addresses parking demand through lot expansion, incentivizing ridesharing/carpooling, continued active management by MSR, increased shuttle access, and the potential for a gondola to the developed areas at the foot of the mountain.

Table 2-14. Existing Parking Capacity

Location	Car Capacity	Guest Capacity
P2	170	340
P3	165	330
P4	420	840
P5	68	136
Total	**823**	**1,646**

2.13.4 Existing Base Area Experience

The existing resort base area at MSR is dominated by the parking areas, with day-use facilities lining the eastern edge of the main parking lots. Skier services stretch from the Bear's Den children's area to the Three Peaks Lodge, approximately 350 m away. The Enquist Lodge operates as a satellite base for the tubing area, approximately 350 m south of the Three Peaks Lodge. The linear layout of the base-area buildings results in a disjointed visitor experience, with skiers having to walk long distances between lifts and services. In turn, this requires an inefficient duplication of services.

As MSR evolves, it will develop the base area into a centralized focal point to the greatest extent possible, develop fully serviced satellite base areas, isolate pedestrians from vehicle traffic, and create a mountain village ambience. The built form of the base area should attempt to follow the natural flow of pedestrian traffic, recognizing the "desire lines" of movement to and from primary amenities. Further, where possible, base area facilities and lift and trail alignment should complement each other to allow easy access and egress to on-mountain and village base facilities. The lack of available flat land constrains upgrades and expansion at the existing base area. This necessitates redeveloping existing built space to create the desired base area. The base area improvements detailed in Section 4 of this SRDP have been designed to address these challenges and deliver an improved guest experience.

3 SITE AND CONTEXT ANALYSIS

The physical, environmental, and climatological realities of Mt Seymour Resort's Controlled Recreation Area and surrounding lands were assessed using advanced GIS tools. The results indicate that MSR has significant potential to expand its current on-mountain offerings and bring ski terrain distribution closer to the skier skill classes in the skier marketplace. The terrain in the east of the existing CRA offers the potential to link contiguous areas of intermediate and advanced ski terrain with considerable vertical drop. Further, slopes just north of the CRA, above De Pencier Lake, offer a large area of intermediate- and advanced-level terrain, with the promise of long ski runs. However, the projected impacts of climate change on winter snowfall underscore the importance of mitigation strategies, such as snowmaking, and adaptation strategies, such as the expansion of summer and shoulder-season recreation activities, as critical components of any future development. These realities influenced the various analyses completed below.

3.1 Introduction

BHA analyzed the MSR study area to assess the development potential for the existing Resort. Given the defined project goals and objectives, a study area of approximately 500 hectares (1,235 acres) was identified. A digital terrain model was created using a combination of high-level topographic mapping with 20-metre contour information and more detailed 5-m contour information. Subsequent analyses were conducted to initiate and guide the mountain and base-area planning processes.

3.2 Mountain Terrain Analysis

BHA analyzed the MSR study area in terms of slope, elevation, and aspect to understand the winter and summer development potential. The map analyses, combined with historical weather data and site visits, culminated in an understanding of the study area's capacity to support expanded, four-season recreational activities physically and environmentally.

The initial assessments examined the terrain, analyzed the slope and elevation profiles, and considered associated linkages. Multiple concepts were prepared to identify potential ski pod and lift locations at this stage. A coarse analysis of these potential pods was then conducted to get a general idea of the possible capacities. The analysis identified potential areas for expansion and redevelopment. Moreover, the initial analysis indicated that developing this terrain would improve the skier distribution at MSR by providing much-needed advanced and expert ski terrain, enabling the Resort to more closely match the accepted market distribution of skier skill classes.

Given the potential to diversify available skiable terrain, the design team began identifying ski area trail alignments, lift configurations, and gladed skiing opportunities. Summer opportunities were also identified to explore the potential to accommodate downhill and cross-country mountain biking, hiking, and sightseeing.

The following sections highlight the results of the terrain analyses on which these assessments were founded. Section 4.0 details the resulting all-season mountain and base-area concepts for MSR.

3.2.1 MOUNTAIN SKI SLOPE ANALYSIS

The Mountain Slope Analysis divides the topography of the study area into a range of skiable gradients for each of the primary skier skill classes (Figure 3-1). These are as follows:

Table 3-1. Ski Slope Gradients by Skill Class

Skill Class	Acceptable Low Gradient (%)	Acceptable High Gradient (%)
Beginner	8	15
Novice	15	25
Low Intermediate	25	35
Intermediate	35	45
Advanced	45	60
Expert	60	80
Extreme	80	+

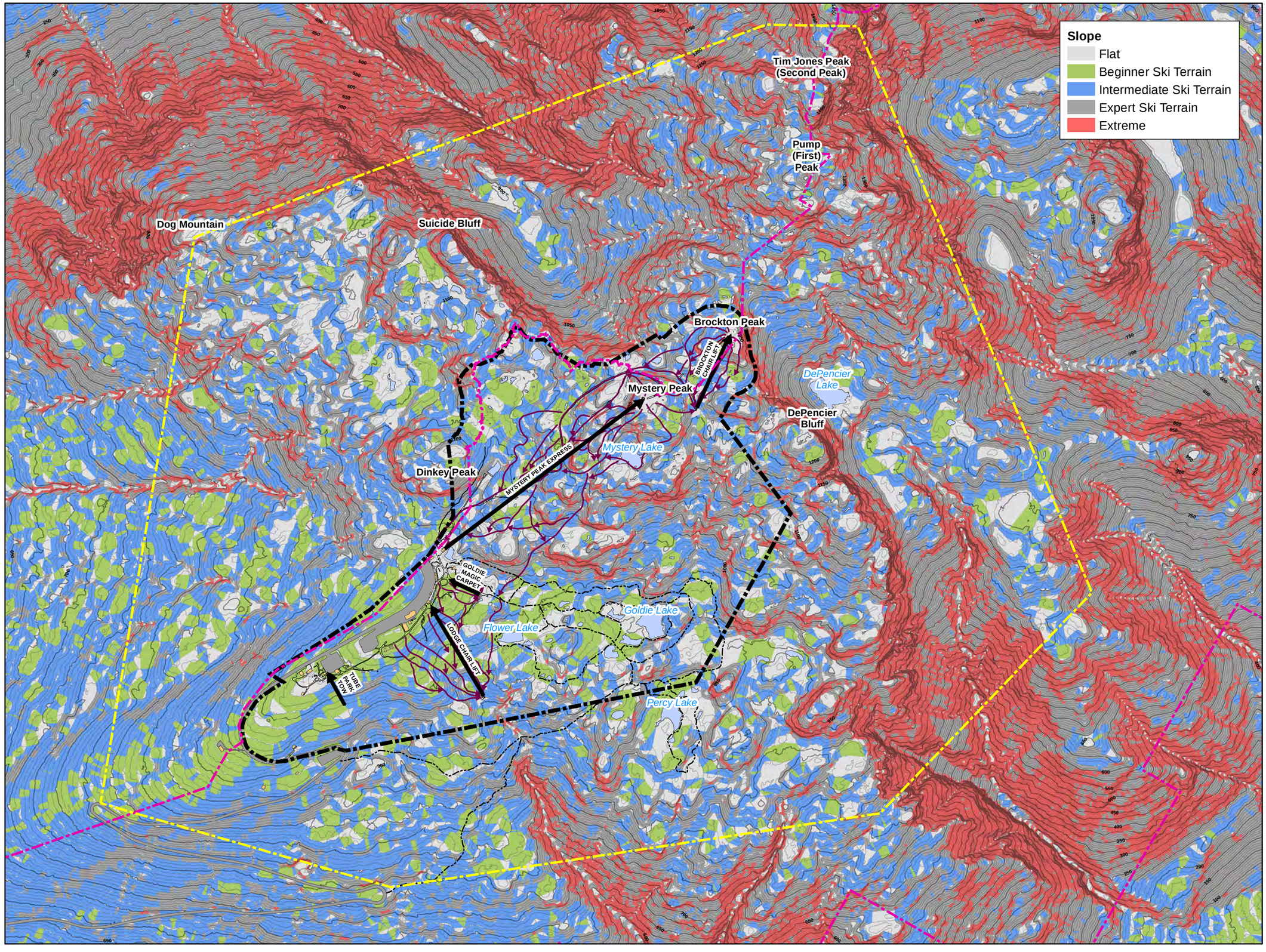
The slope analysis is layered over the existing lift and trail configuration, the base area development, and the CRA Boundary. The resultant analysis describes the general character of the land, illustrating that the study area has a well-balanced mix of terrain.

Overall, the study area contains a diverse mix of ski terrain. The slopes stretching south down the mountain towards the District of North Vancouver are dominated by gentle beginner and intermediate terrain, punctuated by steeper slopes where streams or creeks exist. To the north, a thick band of extreme ski terrain, denoting cliffs, stretches east-west across the entire study area, effectively tracing the existing CRA boundary. Beyond this band, there are pockets of intermediate to extreme ski terrain on the southern slopes of First Peak, extending down to De Pencier Lake.

Within the CRA, the slopes east of the base area contain a balance of beginner and intermediate terrain. The existing Lodge Chair accesses much of the contiguous areas of intermediate terrain, though there are also pockets to the south of that Chair that may be viable as ski terrain. Towards Goldie Lake, the terrain eases to beginner or flat slopes. This may be suitable for beginner skiing if it can be effectively integrated into a ski pod, but it is also ideal for the existing snowshoe trail network.

The terrain radiating from Mystery Peak occupies the full range of slope classes. To the west and southwest, there are areas of beginner and intermediate terrain. The terrain to the south, southeast, and east is characterized by bands of expert and extreme slopes, with sizeable pockets of intermediate terrain forming 'steps' down the mountain. The terrain off Brockton Peak is much the same, with the lands within the CRA containing intermediate terrain broken up by bands of expert and extreme slopes. Its northwestern slopes also hold intermediate terrain with small areas of expert and extreme slopes, while the northeast is dominated by the larger cliff band noted earlier.

Closer to the base area, viewing the slope analysis in terms of tube park improvement or relocation, there is a significant opportunity for development on the terrain immediately below the maintenance area.



MT SEYMOUR

Mt. Seymour Resort
Resort Development Plan
2025

Legend

- Study Area
- Mt Seymour Provincial Park
- Controlled Recreation Area
- Existing Lifts
- Existing Ski Trails
- Existing Snowshoe Trails

Planning by:

BHA

4-1005 Alpha Lake Road,
Whistler, BC, Canada V8E 0H5
Tel: 604 932 7002
email: bha@brentharley.com
website: www.brentharley.com

Prepared for:

MT SEYMOUR

Mt. Seymour Resort Ltd.
1700 Mt. Seymour Road
North Vancouver, BC, Canada V7G 1L3
Tel: 604 986 2261
email: snow@mtseymour.ca
website: www.mtseymour.com

1:15,000

0 100 200 400 Meters

Mountain Slope Analysis

Figure 3-1

This page has intentionally been left blank.

3.2.2 MOUNTAIN BIKE SLOPE ANALYSIS

A Mountain Bike Slope Analysis was undertaken to help identify lands with a suitable gradient for mountain bike trails (Figure 3-2 and Table 3-2). The analysis involves colour-coding the topographic features within the MSR study area based on bikeable slope gradients. The following table defines the gradients in terms of their desirability for downhill mountain bike park development.

Table 3-2 Mountain Bike Slope Gradients

Type of Terrain	Description	Acceptable Low Gradient (%)	Acceptable High Gradient (%)
Flat	Try to Avoid. Drainage will be an issue.	0	5
Preferred	Best range for skill parks, trail hubs, trail intersections, climbing turns and all development of trails suited to all skill levels.	5	25
Possible	Maximum preferred grade for switchbacks	25	40
Generally Avoid	Switchbacks will require retaining structures.	40	55
Avoid	Too steep for use as mountain biking trails.	55	+

A review of the Analysis indicates that, while the area's uneven topography will present challenges for trail development, several large areas have high potential for mountain biking. The slopes in the southern half of the study area are relatively smooth, with moderate pockets of Preferred and Possible terrain separated in areas by small bands of terrain classified as Generally Avoid and Avoid. In contrast, the northern half of the study area is characterized by irregular patches of all slope types. Small to moderate-sized pods of Preferred terrain exist and are often connected by Possible terrain.

Within the CRA, the lands east of the base area, extending from the Tube Park Tow through to Goldie Lake, are dominated by Preferable and Possible slopes. Small areas of steeper terrain exist but can be easily avoided. The analysis also highlights the opportunity to integrate the snowshoeing/hiking trail network into the mountain bike trail network.

Further north, there is also a large area of Preferred and Possible terrain west of Mystery Peak Express. While pockets of unfavourable terrain exist near the top terminal of the Express, they can be addressed through careful planning and trail construction, and the area would create an attractive lift-serviced mountain biking opportunity. Further, this Preferred/Possible area extends beyond the CRA to the plateau above Suicide Bluff, which surrounds several small lakes. This area already contains a trail network used by hikers and may be amenable to cross-country mountain biking.

3.2.3 Mountain Elevation Analysis

The Elevation Analysis (Figure 3-3) slices the study area's topographic features into 25-metre increments. This analysis effectively illustrates the height and "flow" of the land.

The study area is dominated by Mystery Peak (1,228 m), with Brockton Peak (1,265 m) rising just to the north. Suicide Bluff and De Pencier Bluff radiate west and east of Mystery Peak, respectively, forming a height of land from which the elevation declines as it moves southward. First Peak rises to 1,391 metres north of the CRA and overshadows De Pencier Lake, approximately 200 metres below.

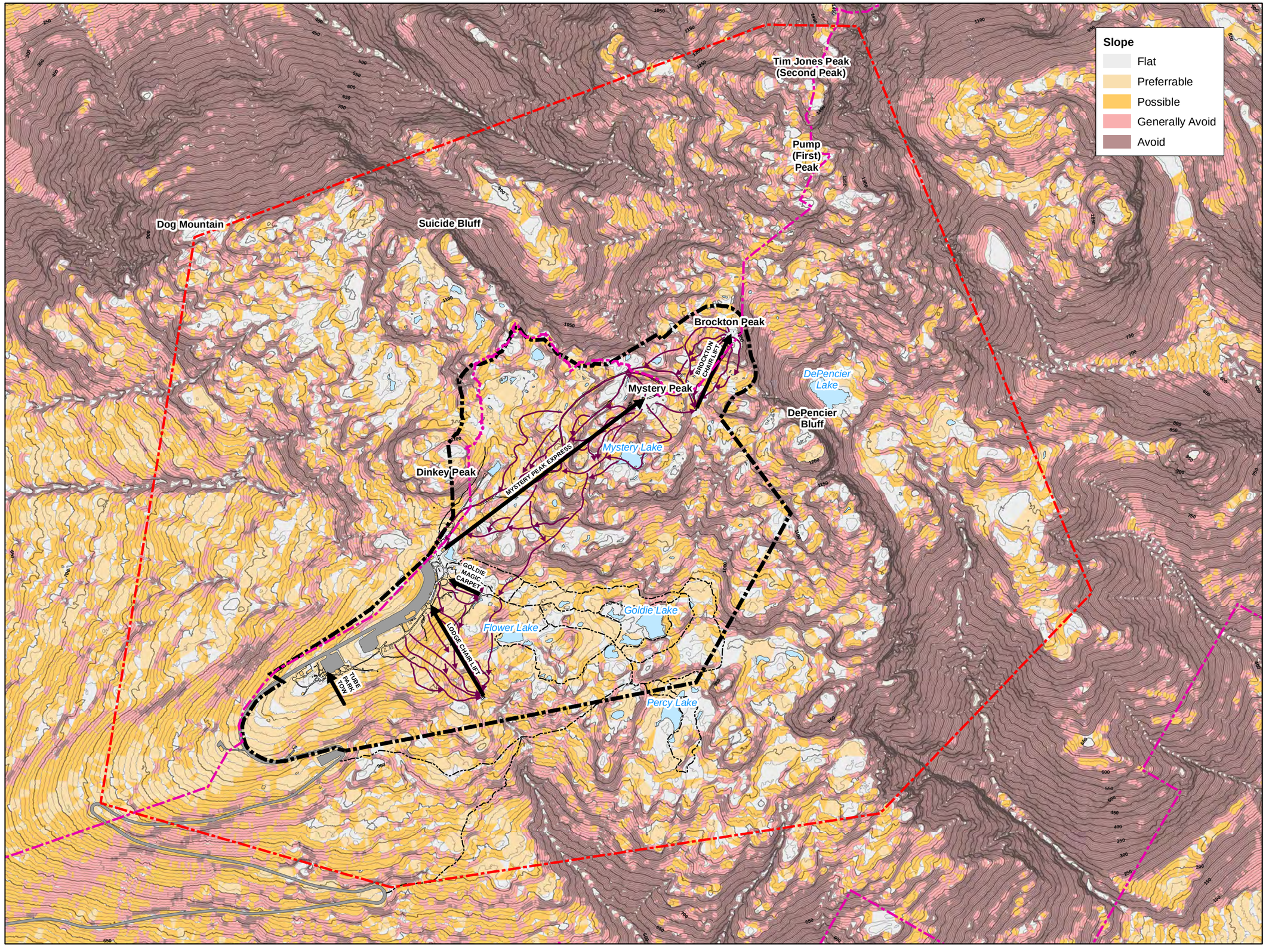
The base area sits on a relatively flat finger of land (~1,025 m) extending southward from the side of Mystery Peak. From this flat area, the terrain to the west descends quickly, while the terrain to the south and east declines more gradually. Further to the east, the land around Flower and Goldie Lakes is relatively flat, forming a small bench.

The highest point within MSR is the top terminal of the Brockton Chair Lift at 1,265 metres (4,150 feet) elevation. The lowest-developed ski terrain is at 935 metres (3,068 feet), providing a total skiable vertical of 330 metres (1,083 feet).

Mt Seymour Resort's highest elevation is comparable to other resorts in the region, while its lowest skiable terrain is considerably higher (Table 3-3). The elevation of the lowest skiable terrain provides a buffer against low snowfall years or warmer temperatures. However, the higher elevation also results in lower skiable vertical relative to other locations in the region.

Table 3-3. Resort Area Elevation and Skiable Vertical

Resort	Lowest Skiable Terrain (m)	Peak Elevation (m)	Vertical (m)
Mt Seymour Resort	935	1,265	330
Cypress Mountain Resort	830	1,440	610
Grouse Mountain Resort	850	1,250	400



Mt. Seymour Resort
Resort Development Plan
2025

Legend

- Study Area
- Mt Seymour Provincial Park
- Controlled Recreation Area
- Existing Lifts
- Existing Ski Trails
- Existing Snowshoe Trails

Planning by:

BHA

4-1005 Alpha Lake Road,
Whistler, BC, Canada V0N 1B1
Tel: 604 932 7002
email: bha@brentharley.com
website: www.brentharley.com

Prepared for:

Mt. Seymour Resort Ltd.
1700 Mt. Seymour Road
North Vancouver, BC, Canada V7G 1L3
Tel: 604 986 2261
email: snow@mtseymour.ca
website: www.mtseymour.com

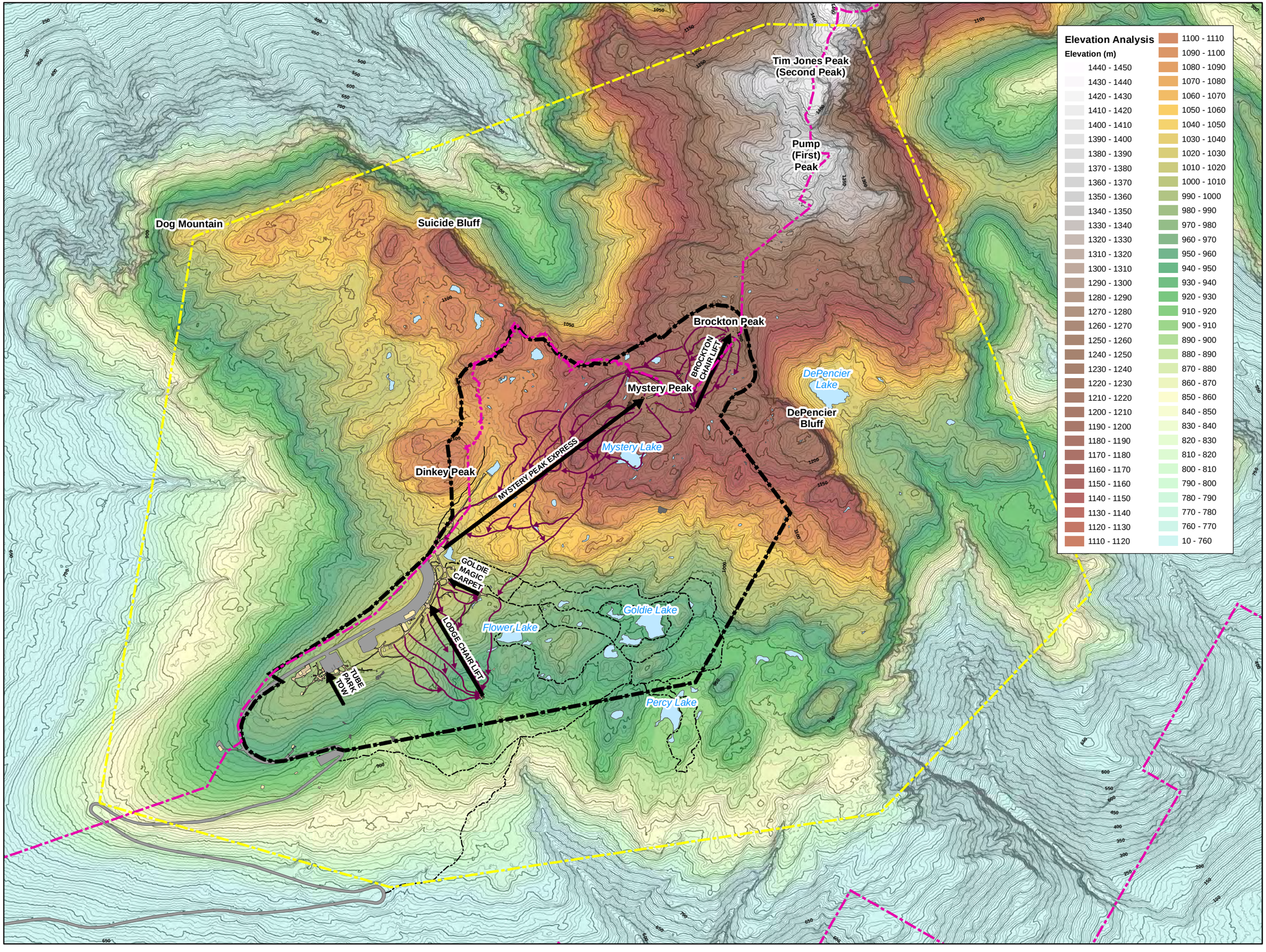
1:15,000

0 100 200 400 Meters

Mountain Bike Slope Analysis

Figure 3-2

This page has intentionally been left blank.



MT SEYMOUR

Mt. Seymour Resort
Resort Development Plan
2025

Legend

- Study Area
- Mt Seymour Provincial Park
- Controlled Recreation Area
- Existing Lifts
- Existing Ski Trails
- Existing Snowshoe Trails

Planning by:

BHA

4-1005 Alpha Lake Road,
Whistler, BC, Canada V8E 0H5
Tel: 604 932 7002
email: bha@brentharley.com
website: www.brentharley.com

Prepared for:

MT SEYMOUR

Mt. Seymour Resort Ltd.
1700 Mt. Seymour Road
North Vancouver, BC, Canada V7G 1L3
Tel: 604 986 2261
email: snow@mtseymour.ca
website: www.mtseymour.com

1:15,000

0 100 200 400 Meters

Mountain Elevation Analysis

Figure 3-3

This page has intentionally been left blank.

3.2.4 Mountain Aspect Analysis

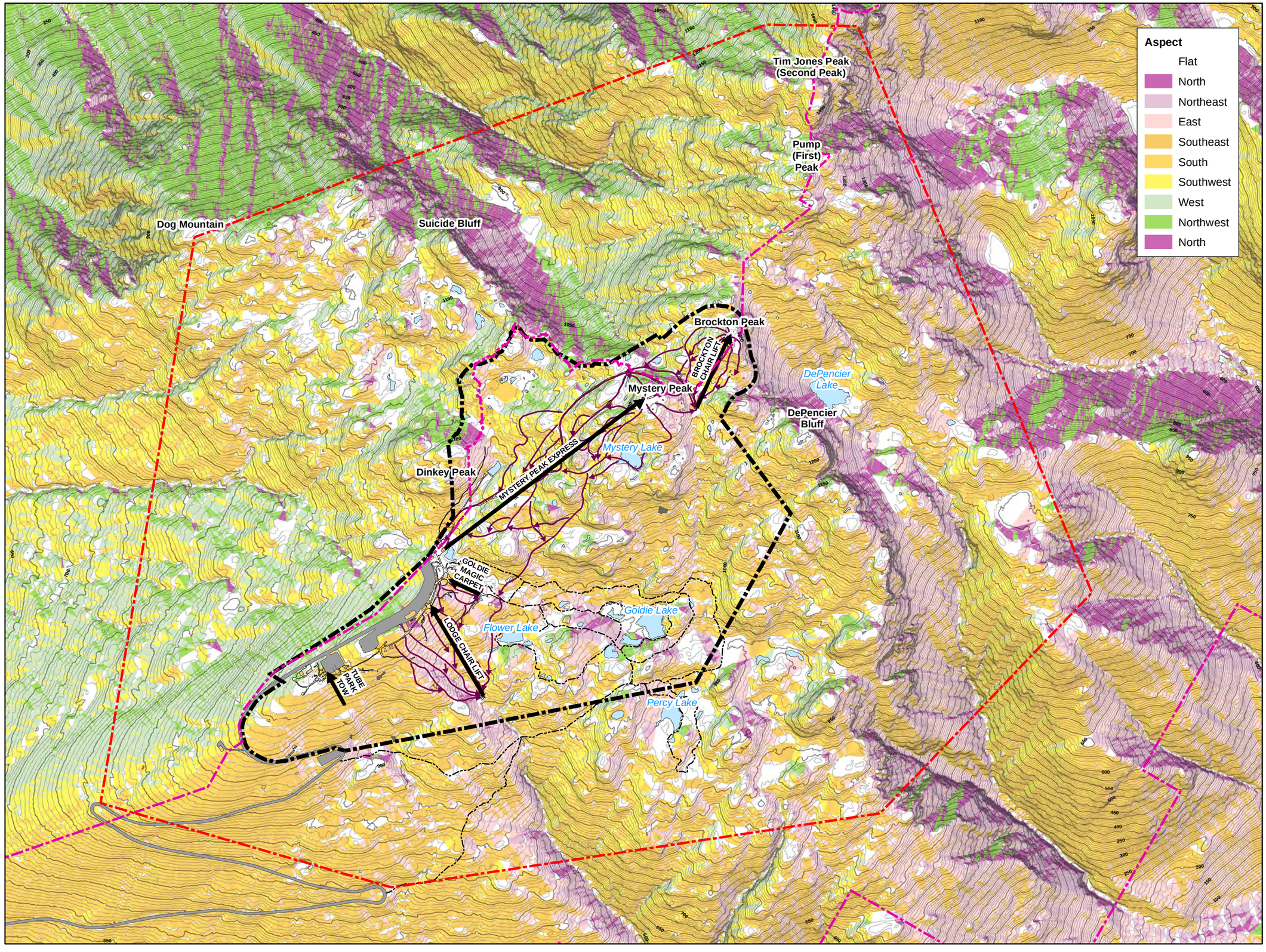
The Aspect Analysis involves colour-coding the topographic features of the study area to illustrate the orientation and geographical exposure with respect to the eight points of the compass (Figure 3-4). Northern exposures receive less direct sunlight, making them better suited for snow retention and, therefore, ski trail development. Southern exposures can prove problematic for ski terrain due to reduced snow retention and a greater likelihood of snowpack reliability issues. However, southern orientations are more desirable for base area developments and on-mountain lodges.

Ski trails with a high degree of solar exposure can minimize the resultant "solar burnout" through careful design, including detailed grading (e.g., angling trails away from direct exposure), reduced trail width (e.g., maximizing shade from edge vegetation), and erosion control (e.g., directing melt waters away from the trails).

The study area is dominated by south and southeast-facing slopes. In the south, outside the CRA, there are areas with a western orientation, while the northern slopes of Suicide and De Pencier Bluffs face to the north and northwest.

The majority of MSR's skiable terrain is south or southeast-facing. Of the existing ski terrain, the areas accessed by the Lodge Chair are at the greatest risk of solar burnout due to limited tree cover and a southern aspect. The terrain available from Mystery Peak Express and Brockton Chair area is also south-facing, but tree cover limits solar exposure. The base area at MSR sits atop a flat ridge, ensuring that amenities such as restaurants and the pub receive sunlight throughout the day.

The ample beginner terrain at Mt Seymour Resorts supports its family focus and reputation as the Resort Where Vancouverites Learn to Ski.



Mt. Seymour Resort
Resort Development Plan
2025

Legend

- Study Area
- Mt Seymour Provincial Park
- Controlled Recreation Area
- Existing Lifts
- Existing Ski Trails
- Existing Snowshoe Trails

Planning by:

BHA

4-1005 Alpha Lake Road,
Whistler, BC, Canada V8E 0H5
Tel: 604 932 7002
email: bha@brentharley.com
website: www.brentharley.com

Prepared for:

Mt. Seymour Resort Ltd.
1700 Mt. Seymour Road
North Vancouver, BC, Canada V7G 1L3
Tel: 604 986 2261
email: snow@mtseymour.ca
website: www.mtseymour.com

1:15,000

0 100 200 400 Meters

Mountain Aspect Analysis

Figure 3-4

This page has intentionally been left blank.

3.3 Base Area Terrain Analysis

The resort's guest capacity is directly tied to the staging capacity of the base area lands. To determine the staging capacity for MSR, the slope of the study area was analyzed using detailed contour data, and the mountain aspect and elevation analyses described above were integrated to determine the best potential base area layouts and concepts.

3.3.1 Base Area Slope Analysis

The Slope Analysis of the base lands study area was completed and is illustrated in Figure 3-5. As indicated, the slopes of the land were categorized based on their physical capability to support specific types of development.

The grey areas represent slopes less than 5%. Generally, this land is ideal for all types of built development (e.g., base lodge/village development; high, medium, and low-density residential; parking lots; settlement ponds). However, because these same areas are flat, they limit ski-in/ski-out access and skier circulation. In addition, these lands can be wet and environmentally sensitive, adding to the development challenges.

Lands with slopes between 5% and 10% (yellow) surrounding the 'flat' lands (less than 5%) have significant development potential. With minimal grading, these lands can all be tied together into a contiguous development opportunity.

The green-coloured slopes represent areas with terrain with a slope of 10%-20%. These lands may be utilized for built development, but access will be more difficult. While they are generally too steep for base-area, staging, and high-density development, they are still conducive to more creative design and architectural strategies.

Slopes with gradients between 20% and 30% (light blue) are areas where base area development becomes more challenging. The key to entertaining such development is both vehicular access and the establishment of parking in an economically viable manner. The benefits of development on these slopes usually include ski-to/ski-out capabilities, unrestricted views, and good solar access.

The dark blue colour represents areas with slopes between 30% and 40. The benefits of big views and excellent solar access can offset the challenges of developing on these slopes.

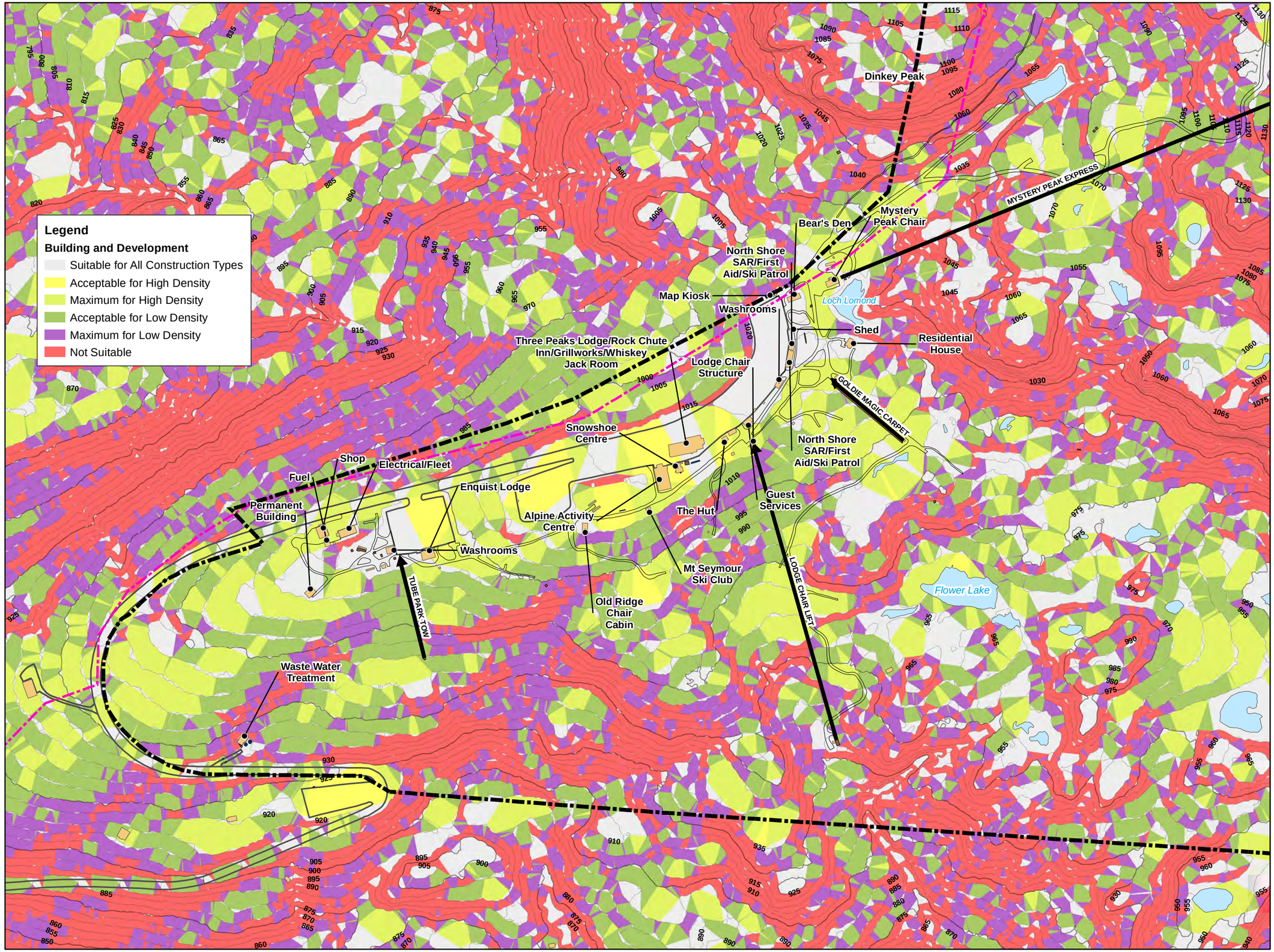
Finally, red-coloured areas represent slopes greater than 40%. Unless special circumstances prevail, these areas should be largely avoided due to the difficulties of access and the expense of construction.

It should be noted that any proposed base area development, whether for additional amenities or accommodation, will adhere to the relevant regulations detailed in MSR's Park Use Permit, the BC Parks Ski Resort Policy, and the BC Parks Fixed-Roof Accommodation Policy.

Table 3-4. Base Area Slope Gradients

Slope	Building and Development Potential Use
0 - 5%	Capable of accommodating all types of base area development with limited grading. Typically, identifying parking potential as well as lands that may be wet and environmentally sensitive to development.
5 - 10%	Capable of accommodating all types of base area development with minimal grading.
10 - 20%	Lands that will require some grading to accommodate development. Upper limits to base area/village development.
20 - 30%	Upper limits to development with grading.
30 - 40%	Upper limits to development.
40%+	The terrain is generally too steep for development. However, some development may be possible, depending on reasonable access and geotechnical considerations.

Based on these slope classifications, much of the land within the study area is unsuitable for base-area development. The ridge on which the current base-area amenities are located is the largest contiguous area of land with high development potential. Beyond the Enquist Lodge, the southern end of this ridge holds lands suitable for further low-density development. Similar opportunities for low-density development are available on the lands surrounding the Goldie Magic Carpet, though integration with the existing ski facilities and experiences may present challenges.



Mt. Seymour Resort
Resort Development Plan
2025

Legend

- Mt. Seymour Provincial Park
- Controlled Recreation Area
- Existing Lifts

Planning by:

BHA
4-1005 Alpha Lake Road,
Whistler, BC, Canada V8E 0H5
Tel: 604 932 7002
email: bha@brentharley.com
website: www.brentharley.com

Prepared for:

Mt. Seymour Resort Ltd.
1700 Mt. Seymour Road
North Vancouver, BC, Canada V7G 1L3
Tel: 604 986 2261
email: snow@mtseymour.ca
website: www.mtseymour.com

1:5,000

0 25 50 100 Meters

Building and Dev Slope Analysis

Figure 3-5

This page has intentionally been left blank.

4 SKI RESORT DEVELOPMENT PLAN

The BHA Ski Resort Development Plan details the proposed improvement and expansion of Mt Seymour Resorts over the next 60 years, capitalizing on significant opportunities to improve the on-mountain and base area guest experience. On the slopes, the proposed development of new ski lifts and realignment of the tube park will result in an additional 116 ha of skiable terrain, with a significant increase of intermediate terrain. This would better align the distribution of ski runs with the skier marketplace.

Complementing the expansion of on-mountain terrain, skier-related built space will expand in response to increasing visitation. The base area will develop around a central, more walkable, pedestrian-scale core offering a full range of skier services. Further, Mt Seymour Resorts will develop on-mountain day lodges that provide essential skier services and scenic views of the region.

Together, the expansion of ski terrain and the base area will increase Peak Balanced Resort Capacity from 2,660 to approximately 5,900 guests, fulfilling Mt Seymour Resort's vision as the starting gate for recreation in Metro Vancouver, strengthening its family-oriented reputation, and realizing the ski area's full recreation potential.

The implementation plan establishes the path to achieving all the proposed improvements and expansions. It details a well-defined course of action to guide development at Mt Seymour Resort.

4.1 INTRODUCTION

The BHA Ski Resort Development Plan (SRDP) for Mt Seymour Resorts (MSR) describes the proposed evolution of this already successful regional ski area into the starting gate for mountain recreation in Metro Vancouver. The following section describes the various components and elements of the SRDP. It is divided into two primary pieces: the improvement and expansion of the mountain facilities and recreation amenities, and the upgrade and expansion of the base area. Each is detailed below in terms of its proposed resort buildout condition.

The SRDP is focused on developing a diverse mix of high-quality all-season mountain and recreation facilities and attractions. To be successful, these will be designed to reflect the expectations of existing and future day-use guests. The size and scale of the base area facilities will reflect the Peak Balanced Resort Capacity of those mountain recreation facilities and attractions, providing the appropriate combination of support facilities and services to meet the guests' needs during their visit.

Section 4.11 defines a phased implementation of the mountain facilities included in the SRDP. However, it must be noted that any redevelopment or expansion of MSR will be initiated only when market conditions, ongoing resort utilization, and resort area trends collectively indicate a business case. Further, the order of certain projects may be revised based on these same factors.

The Ski Resort Development Plan is structured as follows:

- Section 4.2 details the BHA Ski Resort Development Plan and Resort Recreation.
- Section 4.3 describes the Other Resort Attractions.
- Section 4.4 discusses the proposed Summer Resort Activities
- Section 4.5 presents the Amenities available through all Four Seasons
- Section 4.6 outlines the content and relationship between the attractions regarding the Peak Balanced Resort Capacity at Buildout.
- Section 4.7 specifies the scale and scope of the associated Resort Base Area.
- Section 4.8 describes the basic requirements regarding Service and Infrastructure.
- Section 4.9 describes the proposed realignment of the Controlled Recreation Area boundary.
- Section 4.10 discusses the Resort's Commitment to Backcountry Recreation and Access
- Section 4.11 assesses Climate Change in the CRA and the project's potential Economic Impact.
- Section 4.12 describes the Ski Resort Development Plan Implementation Strategy.

4.2 MOUNTAIN DEVELOPMENT PLAN

Based on the detailed Inventory and Analysis of the mountain terrain (See Sections 2 and 3) and its physical capability to support additional development, MSR has a significant opportunity to enhance the skiing and snowboarding experience.

Utilizing the completed analyses as a foundation, BHA completed a more comprehensive and detailed assessment of technical opportunities and constraints. These resulted in the creation of a series of development concepts from which the Preferred Resort Concept was derived. This Preferred Resort Concept became the basis for the BHA Ski Resort Development Plan for MSR. This section details the extent of ski area development proposed for MSR's mountain facilities expansion. It illustrates the configuration of all proposed lifts, trails and gladed ski trails at buildout and demonstrates the associated capacities and market distribution of ski terrain.

4.2.1 Mountain Development Goals

The BHA Ski Resort Development Plan provides the blueprint to define, describe, protect, and develop MSR's alpine environment such that it anticipates and capitalizes on evolving market trends, establishes a unique and distinctive character, and ultimately is fundamentally about 'mountain play' on a year-round basis.

The defined vision for the resort was guided by the BC Parks Ski Resort Policy and design criteria detailed in the Province of British Columbia's All-Season Resort Guidelines (ASRG). Higher skier densities were applied during the design process to reflect changes in market expectations and MSR's desire to be the mountain recreation gateway for the Metro Vancouver region. Further, the planning process addressed the need for a diverse summer product that complements the attributes of the surrounding parklands, attractions and facilities, catering to the growing market demand and guest expectations for an accessible, environmentally aware recreation offering.

Building on the identified goals and objectives of the Resort (see Section 1), the following development goals were envisioned for the mountain area, divided by season and type of activities:

Winter Season – Skiing and Snowboarding

- Continue to offer terrain that reinforces the diverse needs of families and provides something for everyone, from traditional ski runs to gladed terrain for all ability levels.
- Continue to offer terrain designed to encourage skier skill progression.
- Provide intermediate/entry-level gladed ski trails that are 'feathered' into advanced gladed ski trails, supporting skier skill progression.
- Realize efficiencies within the existing terrain through modifications, upgrades, and infill.
- Continue to upgrade the ski lift system to cater to a high-density family skiing experience.
- Develop exciting new terrain that will inspire the market.
- Preserve, develop, and enhance the ski-to/ski-from capabilities of the base area.
- Preserve and enhance the trails catering to backcountry touring and snowshoeing staged from Mt Seymour Resort.
- Develop a comprehensive snowmaking system utilizing state-of-the-art technologies to ensure a reliable snowpack, especially at lower elevations.
- Improve and expand on-mountain facilities to cater to the diverse needs and expectations of skiers in each area of the mountain.
- Provide exciting and compelling alternative winter activities for guests, such as snowshoeing and tubing, recognizing families' diverse needs and interests.

Winter Season – Other Activities

- Provide alternative winter activities for guests, recognizing the diverse needs of families, such as snowshoeing and tubing.

Summer Season

- Plan for, design, and develop a cross-country mountain biking trail system, an aerial adventure park and zip lines unique to Mt Seymour Resort.
- Plan and design various overnight options, from glamping to cabins, that are welcoming and accessible to all and provide a range of wilderness experiences.
- Consider and develop additional adventure tourism opportunities in and around Mt Seymour Resort, including facilities and activities like a via Ferrata, a skywalk, an alpine slide, and a suspension bridge.
- Preserve, enhance, and expand on the trails catering to hiking, trail running, and backcountry backpacking trails staged from Mt Seymour Resort.
- Explore the opportunities to develop additional summer attractions, facilities, festivals, events, and celebrations based out of the Mount Seymour Base Area.

4.2.2 Preliminary Winter Terrain Capacity Analysis

After synthesizing the results of the various analyses, several conceptual alternatives for ski trail and lift development were explored. Well-integrated skiing potential was identified across several pods, each complemented by other mountain attractions and balanced with the proposed base-area facilities.

Ski pods are defined by terrain characteristics and potential skier types (e.g., beginner, intermediate, advanced, and expert). The shape of the ski pods was delineated by the height and flow of the land and skiable terrain present, with ski runs radiating out from an upper elevation and returning naturally to a lower focal point. The identified areas were tied to a skier skill class and to potential lift terminal locations. This terrain analysis illustrates the potential to develop the much-needed intermediate, advanced, and expert skiing.

The total area of potential skiable terrain within the MSR study area is approximately 500 hectares (1,235 acres). To account for unskiable areas, slopes over 80% and under 8% were removed. Typically, the skiable terrain within a ski pod ranges from 25% to 50% of the total area. According to these preliminary analyses, the MSR study area could develop approximately 110 hectares (272 acres) of additional ski terrain (using 35% trail development per unit of potentially skiable terrain). Additional gladed ski terrain could be developed on an additional 15% of the expansion area.

Applying a high skier density to each pod, the skiable terrain identified within the study area can support approximately 4,500 skiers during peak periods. Although these results were preliminary, they indicate sufficient potential to expand and improve skiable terrain, leading to a recommendation to complete a more detailed analysis of the opportunities inherent in the study area.

Once established, the skiing experience will be a well-balanced product that continues to adhere to MSR's established family-oriented reputation and culture. If the MSR study area's potential is

fully developed and realized, it is not hard to imagine Mt Seymour Resorts as the standout ski destination in the Metro Vancouver region.

4.2.3 Proposed Mountain Developments

The following section details and illustrates each proposed ski pod contained in the SRDP (Figure 4-1 and 4-1b). Together, they represent the realization of the vision for Mt Seymour Resorts and the potential for all-season recreation within the study area.

Ridge Chair

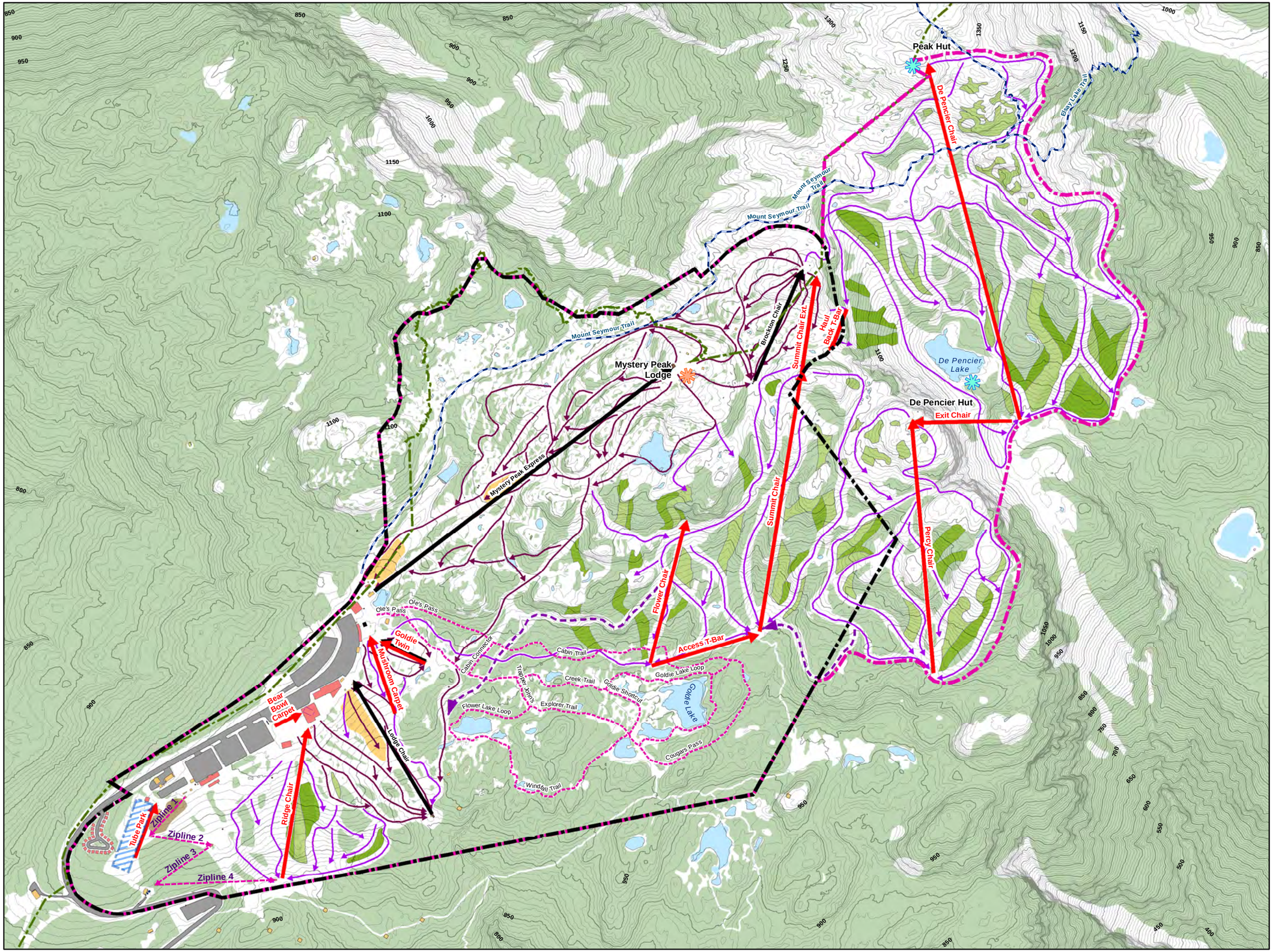
The proposed Ridge Chair represents the reactivation of previously established ski terrain that has become underutilized and, once redeveloped, will work effectively in concert with the Lodge Chair Pod to support beginner-to-intermediate skier skill progression. The slopes in this ski pod are ideal for low-intermediate and intermediate skiers, and their relatively short length makes them perfect for skiers who are still building their confidence but looking to challenge their skills. The proximity of this lift to the rental and ski school buildings makes it very accessible to newer skiers and well-suited to ski school lessons. Finally, the Ridge Chair could support the proposed lift-serviced mountain bike trail network in the summer.

Summit and Percy Chairs

The proposed Summit and Percy Chairs will add to MSR's intermediate and advanced ski terrain and bring the overall distribution of ski terrain at the ski area more in line with that found in the skier marketplace. The unique, undulating topography of the slopes will result in remarkably playful and dynamic ski terrain featuring natural bumps, rolls, and banks sought after by experienced skiers. The Summit Chair includes a mid-station and connection to the top of the Brockton ski pod, allowing skiers to lap the Summit pod, combine the Summit and Brockton pods for a longer run, or transit into the De Pencier pod. Adding this new, dynamic terrain will only strengthen the ski experience at MSR, appealing to the currently underserved segment of experienced skiers.

The Summit Access T-Bar and the Flower Chair provide access to the lower terminal of the Summit Chair via the proposed access trail. The Flower Chair will also function as a small, self-contained ski pod. The T-Bar and Flower Chair serve a critical role in, first, reducing demand on the Mystery Peak Express as the sole point of access to the northern areas of the resort and, second, providing redundant access to the Summit, Percy, Brockton, and De Pencier Chairs should the Mystery Peak Express encounter a mechanical issue.

The proposed advanced and expert ski terrain in the Summit and Percy pods is heavily weighted towards gladed skiing rather than traditional cleared ski trails. This is motivated by a desire to preserve forest values, especially old-growth values, and is supported by the relatively low tree density and wider spacing found in these areas, which is already conducive to skiing and snowboarding.



MT SEYMOUR

Mt. Seymour Resort Resort Development Plan 2025

Legend

- Mt Seymour Existing CRA
- Proposed CRA
- Mount Seymour Provincial Park
- Existing Terrain Parks
- Existing Lifts
- Proposed Lifts
- Proposed Access
- Proposed Ski Runs
- Existing Ski Runs
- Existing Winter Backcountry Access Routes
- Existing Snowshoe Trails
- Proposed Buildings

Proposed Summer Use

- Aerial Adventure
- Proposed Ziplines

Proposed Winter

- Potential Tube Park

Proposed Glading

- Dense Glading
- Thin Glading

Proposed Mountain Lodges

- Restaurant/Cafe
- Warming Hut

Planning by:

BHA

4-1005 Alpha Lake Road,
Whistler, BC, Canada V8E 0H5
Tel: 604 932 7002
email: bha@brentharley.com
website: www.brentharley.com

Prepared for:

MT SEYMOUR

Mt. Seymour Resort Ltd.
1700 Mt. Seymour Road
North Vancouver, BC, Canada V7G 1L3
Tel: 604 986 2261
email: snow@mtseymour.ca
website: www.mtseymour.com

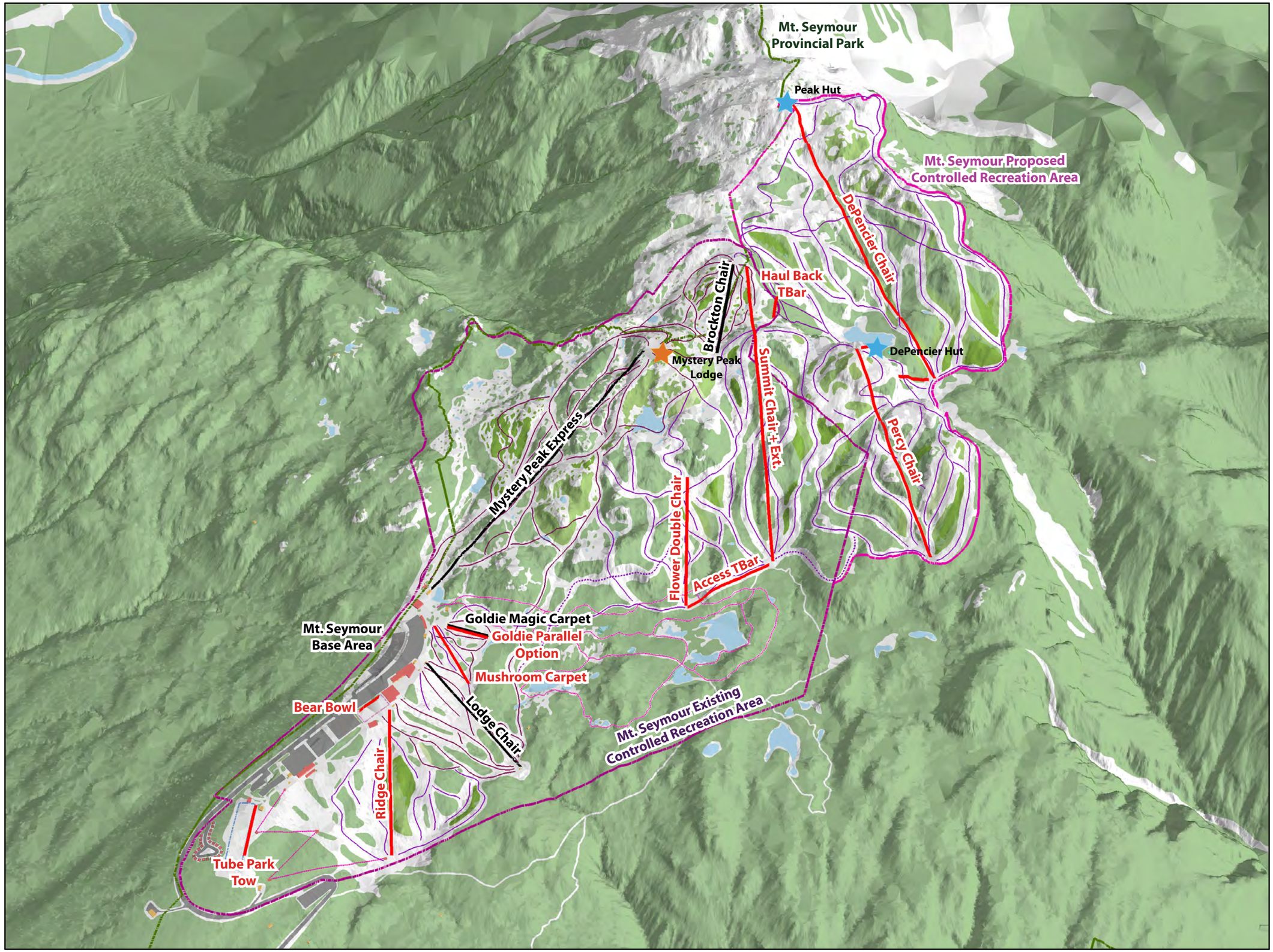
1:10,000

0 100 200 400 Meters

Mount Seymour Resort at Buildout

Figure 4-1

This page has intentionally been left blank.



Mt. Seymour Resort
Resort Development Plan
2024

Legend

- Mt Seymour Existing CRA
- Proposed CRA
- Mt Seymour Provincial Park
- Existing Terrain Parks
- Existing Lifts
- Proposed Lifts
- Proposed Access
- Proposed Ski Runs
- Existing Ski Runs
- Existing Winter Backcountry Access Routes
- Existing Snowshoe Trails
- Proposed Buildings

Summer Use Areas

- Aerial Adventure Park

Winter Activities

- Potential Tube Park

Proposed Glading

- Dense Glading
- Thin Glading

Proposed Mountain Lodges

- Restaurant/Cafe
- Warming Hut

Planning by:

BHA

4-1005 Alpha Lake Road,
Whistler, BC, Canada V8E 0H5
Tel: 604 932 7002
email: bha@brentharley.com
website: www.brentharley.com

Prepared for:

Mt. Seymour Resort Ltd.
1700 Mt. Seymour Road
North Vancouver, BC, Canada V7G 1L3
Tel: 604 986 2261
email: snow@mtseymour.ca
website: www.mtseymour.com

1:10,000

0 100 200 400 Meters

Mount Seymour Resort at Buildout

Figure 4-1b

This page has intentionally been left blank.

De Pencier Chair

The proposed De Pencier Chair represents a significant expansion to the ski terrain at MSR, adding 50 ha of intermediate and advanced ski terrain to the ski area. Further, this terrain will add a new dimension to the ski experience at MSR, replicating the long runs found on the Mystery Peak Express but on the intermediate and advanced ski terrain currently lacking at MSR. Much of the ski terrain sits at a relatively high elevation, shaded from midday and afternoon sun, and is oriented to the east, limiting solar exposure and preserving the snowpack and snow quality. The De Pencier ski pod will offer spectacular 270° views of Metro Vancouver and the Indian Arm from its peak. Its location will provide skiers with a sense of backcountry adventure and escape while being lift-serviced and attached to MSR.

Skiers exiting the De Pencier pod will use a short Haul Back T-Bar or the Exit Chair. The former connects skiers with the Brockton ski pod, while the latter brings them into the Summit ski pod. Together, the return lifts enable effective skier circulation, whether during the day in response to changing conditions or at the end of the day when skiers return to the base area.

As part of the development of the De Pencier pod, MSR will also preserve and enhance the existing backcountry access trail that connects park users to First Peak and Elsay Lake, and to the backcountry recreation experiences there. See Sec. 4.9 for more details.

Mushroom Carpet

The proposed Mushroom Carpet adjacent to the popular Goldie Carpet will reinforce MSR's family-oriented, beginner-friendly reputation. It has been designed as the last step in beginner skier skill progression before guests graduate to ski lifts and longer, more challenging runs. The Mushroom Carpet also provides additional uphill capacity in the increasingly popular Goldie beginner area, with longer runs and additional ski terrain, supporting the growth of MSR's ski school programs.

Tube Park

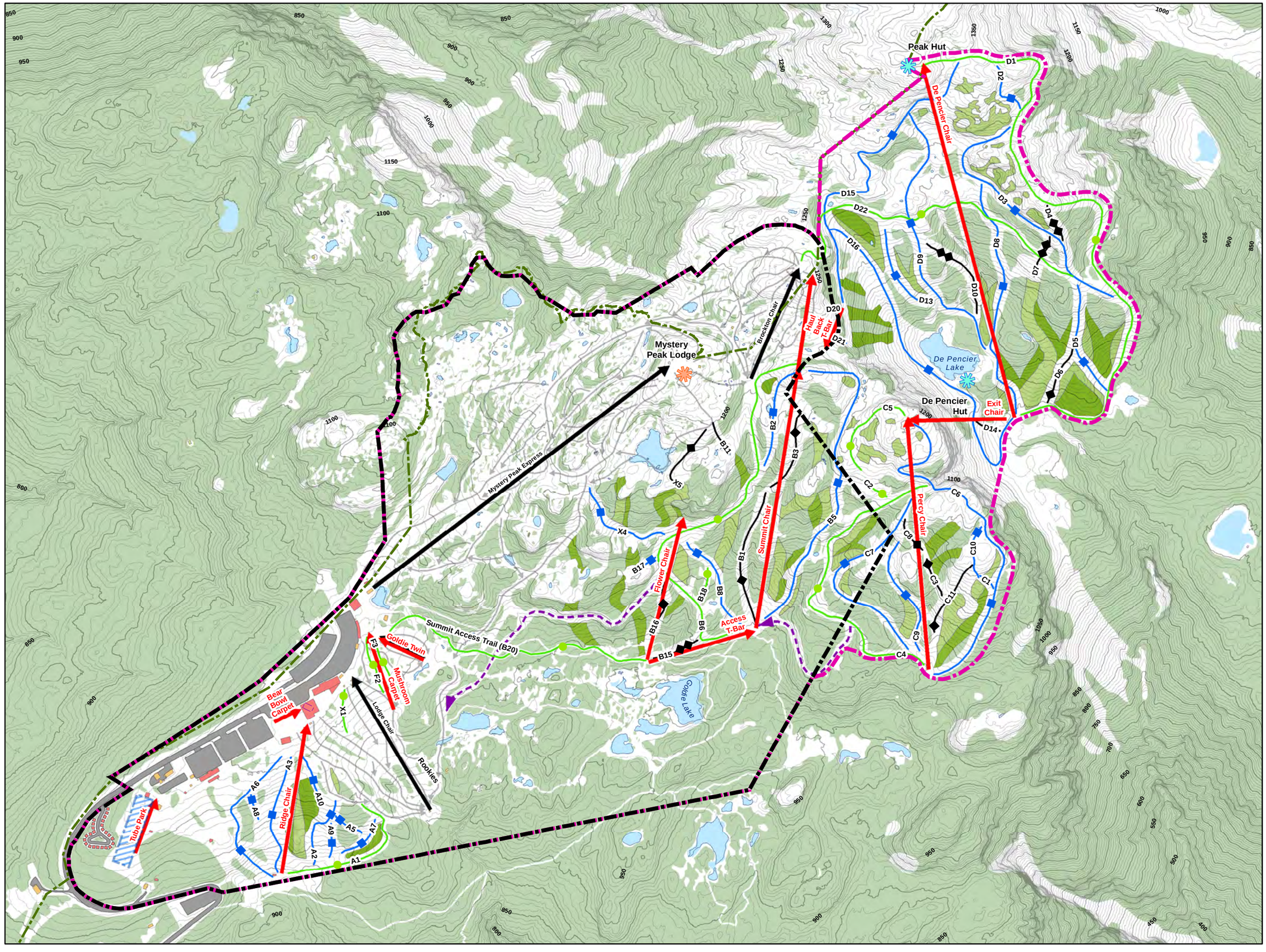
As planned, the existing Tube Park will be relocated and expanded in the CRA, south of and below the Enquist parking area. With some grading, the new alignment will facilitate ideal Tube Park gradients, making for an exciting, easy-to-use winter activity. It will provide amazing views of Metro Vancouver and maintain easy access to and from the Enquist Lodge and parking area. The increased capacity and improved quality of experience will address the growing demand for snowplay. It is anticipated that the iconic views offered by the new alignment will become a defining feature of Mt Seymour Resort.

4.2.4 Proposed Ski Trail Development

The proposed development at MSR includes the realignment of some existing terrain and the addition of the new ski area terrain. The following sections detail the specific nature and characteristics of the Ski Resort Development Plan in its proposed 'buildout' form.

The existing and proposed ski lifts and trails (Figure 4-1) graphically illustrate the proposed transformation of the mountain's lift and trail system. This is further enhanced by the description of the proposed ski trails by skier skill class in Figure 4-2 and Table 4-1. Each ski trail or trail segment has been assigned an alphanumeric code that identifies the trail on all associated mapping and within the geospatial and statistical databases. The general extent of proposed gladed areas has been included to indicate potential gladed terrain (see Section 4.2.5).

Mt Seymour Resorts recognizes the ecological, cultural, and recreational value of the surrounding parkland and strives to ensure its integrity. MSR will work with stakeholders, BC Parks, the Metro Vancouver Regional District, and the District of North Vancouver to ensure the health of the adjacent public lands for the enjoyment of all British Columbians.



Mt. Seymour Resort
Resort Development Plan
2025

Legend

- Proposed CRA
- Mt Seymour Existing CRA
- Mount Seymour Provincial Park
- Proposed Vegetation
- Existing Lifts
- Proposed Lifts
- Proposed Access Trails

Proposed Ski Trails

Class

- Beginner
- Intermediate
- Advanced

Planning by:

BHA

4-1005 Alpha Lake Road,
Whistler, BC, Canada V8E 0H5
Tel: 604 932 7002
email: bha@brentharley.com
website: www.brentharley.com

Prepared for:

Mt. Seymour Resort Ltd.
1700 Mt. Seymour Road
North Vancouver, BC, Canada V7G 1L3
Tel: 604 986 2261
email: snow@mtseymour.ca
website: www.mtseymour.com

1:10,000

0 100 200 400 Meters

Proposed Ski Trails by Skier Class

Figure 4-2

This page has intentionally been left blank.

Table 4-1. Proposed Ski Trails at Buildout

Run Name	Slope Length (m)	Maximum Slope (%)	Average Slope (%)	Trail Area (ha)	Skill Class
Ridge Chair					
A1	450	33	18	1.4	Novice
A10	155	24	19	0.5	Low Intermediate
A2	230	43	36	0.7	Low Intermediate
A3	363	39	32	1.1	Low Intermediate
A5	96	50	33	0.3	Intermediate
A6	471	59	26	1.4	Intermediate
A7	150	38	27	0.5	Low Intermediate
A8	78	46	38	0.2	Intermediate
A9	107	50	49	0.3	Intermediate
Glade				3.0	
Total Skiable Area				**9.3**	

Run Name	Slope Length (m)	Maximum Slope (%)	Average Slope (%)	Trail Area (ha)	Skill Class
Summit Chair + Extension					
B1	408	70	31	1.2	Advanced
B2	333	58	37	1.0	Intermediate
B3	260	68	35	0.8	Advanced
B5	976	66	31	2.9	Novice
B6	1294	60	26	3.9	Intermediate
B8	345	65	28	1.0	Intermediate
B15	146	119	35	0.4	Expert
B16	177	64	35	0.5	Advanced
B17	77	42	14	0.2	Low Intermediate
B18	99	23	10	0.3	Novice
X4	329	43	23	1.0	Low Intermediate
Glade				22.1	
Total Skiable Area				35.4	

*Access Trails

Run Name	Slope Length (m)	Maximum Slope (%)	Average Slope (%)	Trail Area (ha)	Skill Class
Percy Chair					
C1	57	38	33	0.2	Low Intermediate
C10	468	59	35	1.4	Intermediate
C11	250	69	48	0.8	Advanced
C2	81	27	23	0.2	Novice
C3	332	66	29	1.0	Advanced
C4	960	38	21	2.9	Novice
C5	309	32	22	0.9	Novice
C6	1111	95	31	3.3	Low Intermediate
C7	660	89	23	2.0	Intermediate
C8	111	36	30	0.3	Advanced
C9	369	51	28	1.1	Intermediate
Glade	0	0	0	7.0	
Total Skiable Area				**21.1**	

Run Name	Slope Length (m)	Maximum Slope (%)	Average Slope (%)	Trail Area (ha)	Skill Class
De Pencier					
D1	1977	77	31	5.9	Novice
D10	301	100	49	0.9	Expert
D12	251	43	21	0.8	Low Intermediate
D13	291	53	38	0.9	Intermediate
D14	84	68	52	0.3	Advanced
D15	1821	60	27	5.5	Intermediate
D16	1056	80	24	3.2	Intermediate
D2	171	42	36	0.5	Low Intermediate
D20	65	100	120	0.2	Advanced
D21	58	100	85	0.2	Advanced
D3	822	58	28	2.5	Intermediate
D4	130	80	61	0.4	Expert
D5	361	57	43	1.1	Intermediate
D6	196	69	46	0.6	Advanced
D8	751	74	33	2.3	Intermediate
D9	862	79	34	2.6	Intermediate
Glade	0	0	0	22.0	
Total Skiable Area				**49.6**	

Run Name	Slope Length (m)	Maximum Slope (%)	Average Slope (%)	Trail Area (ha)	Skill Class
Mushroom Carpet					
F2	115	18	11	0.5	Novice
F3	42	18	10	0.5	Novice
Total Skiable Area				**1.0**	

4.2.5 PROPOSED GLADED SKI TERRAIN

By buildout, gladed skiing on the mountain will be expanded from the current 7.8 hectares to over 62 hectares (see Figure 4-4).

As proposed, the gladed ski terrain will be developed using a feathering technique initiated from the ski run edges. As illustrated in Figures 4-3a and 4-3b, the typical layout would see a gladed edge moving into the trees from the clear cut of the ski trail. The tree spacing initially would be wide (5 to 7 metres). Tree separation would decrease progressively, closing to a minimum of 2 metres. The lower branches of gladed trees should also be limbed to 3 metres above the maximum snow depth, depending on tree species, to facilitate clear paths for skiers and boarders.

Figure 4-3a. Illustrative Example of Glading

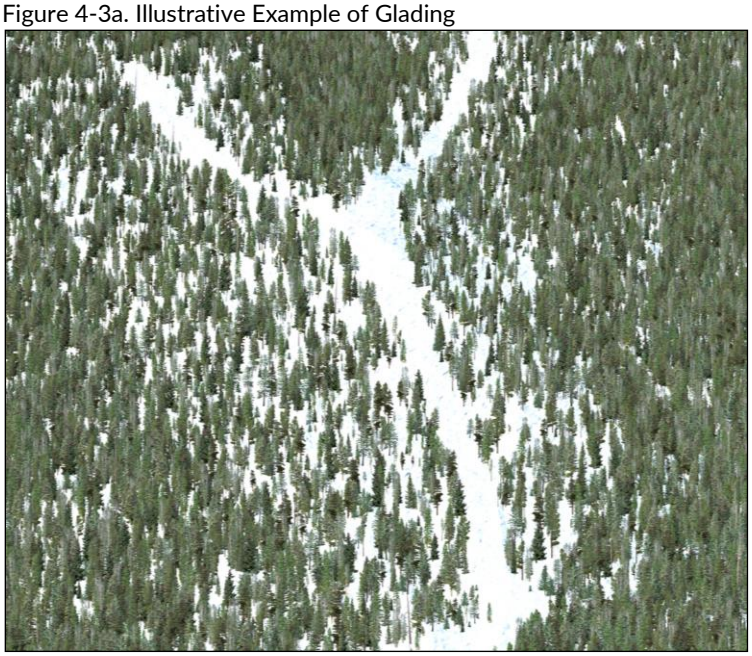
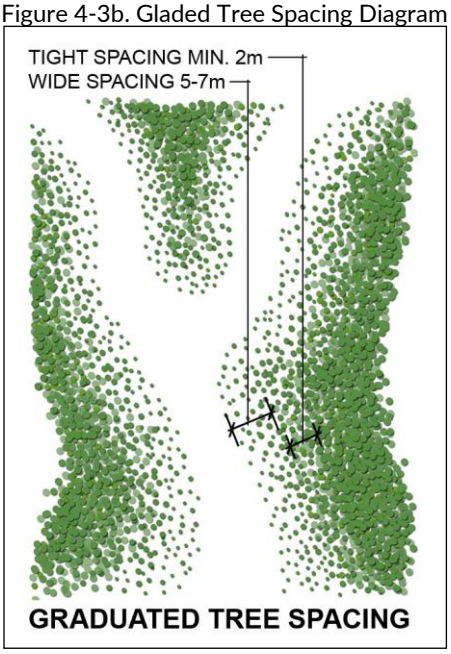


Figure 4-3b. Gladed Tree Spacing Diagram



Glading can deliver ecological and recreational benefits. Feathering forest edges by thinning encourages a brushy transition zone between the opening and the denser stand, which promotes food growth and improves wildlife habitat. In addition, the feathered edge protects against wind blowdown and provides better visual quality across the forest stand.

From the guest's perspective, feathering the edges of ski trails provides an excellent skills development opportunity by making a semi-gladed transition zone between the fully cut ski run and the denser gladed areas in between runs. Feathering the edges of runs and glading in between runs will provide great adventure terrain for all ability levels and encourage all ability levels to progress to new levels of enjoyment.

Mt. Seymour Resort
Resort Development Plan
2025

Legend

- Proposed CRA
- Mt Seymour Existing CRA
- Mount Seymour Provincial Park
- Existing Lifts
- Proposed Lifts
- Existing Ski Runs
- Existing Backcountry Access Trail

Proposed Ski Runs

- Novice
- Intermediate
- Expert
- Proposed Access Trails

Existing Glading

- Thin Glading
- Dense Glading

Proposed Glading

- Dense Glading
- Thin Glading

Planning by:

BHA
4-1005 Alpha Lake Road,
Whistler, BC, Canada V8E 0H5
Tel: 604 932 7002
email: bha@brentharley.com
website: www.brentharley.com

Prepared for:

Mt. Seymour Resort Ltd.
1700 Mt. Seymour Road
North Vancouver, BC, Canada V7G 1L3
Tel: 604 986 2261
email: snow@mtseymour.ca
website: www.mtseymour.com

1:10,000

0 100 200 400 Meters

Proposed Glading at Buildout

Figure 4-4

This page has intentionally been left blank.

4.2.6 DOWNHILL CAPACITY

By applying the appropriate acceptable densities to the ski trails and gladed areas in terms of skiers per hectare, the total downhill capacity of the existing and proposed development at MSR was calculated. Table 4-2 outlines the downhill capacity of the trails by skier skill class within each pod for the entire ski area. In total, the buildout ski trail capacity is 4,561 skiers.

Table 4-2. Downhill Capacity of Trails by Skier Class

Pod	Vertical (m)	Skiable Area (ha)	Downhill Capacity by Skill Class						Total Downhill Capacity
			Beginner	Novice	Low Intermediate	Intermediate	Advanced	Expert	
Existing									
Brockton Chair	75	7	-	95	20	95	22	-	232
Goldie Magic Carpet	31	2	30	67	-	-	-	-	98
Mystery Peak Express	205	26	18	526	319	35	23	20	941
Lodge Chair	86	8	11	389	52	-	-	-	453
Existing Totals		**42**	**60**	**1,077**	**391**	**130**	**45**	**20**	**1,723**
Proposed									
Ridge Chair	111	9	-	81	108	97	-	-	286
Summit Chair	252	35	-	251	49	233	131	19	683
Percy Chair	254	21	-	243	140	205	42	-	630
De Pencier Chair	244	50	-	356	51	684	69	20	1,179
Mushroom Carpet	34	1	-	61	-	-	-	-	61
Proposed Total		117	-	992	347	1,219	241	39	2,838
PROPOSED + EXISTING TOTAL		**158**	**60**	**2,068**	**739**	**1,350**	**286**	**59**	**4,561**

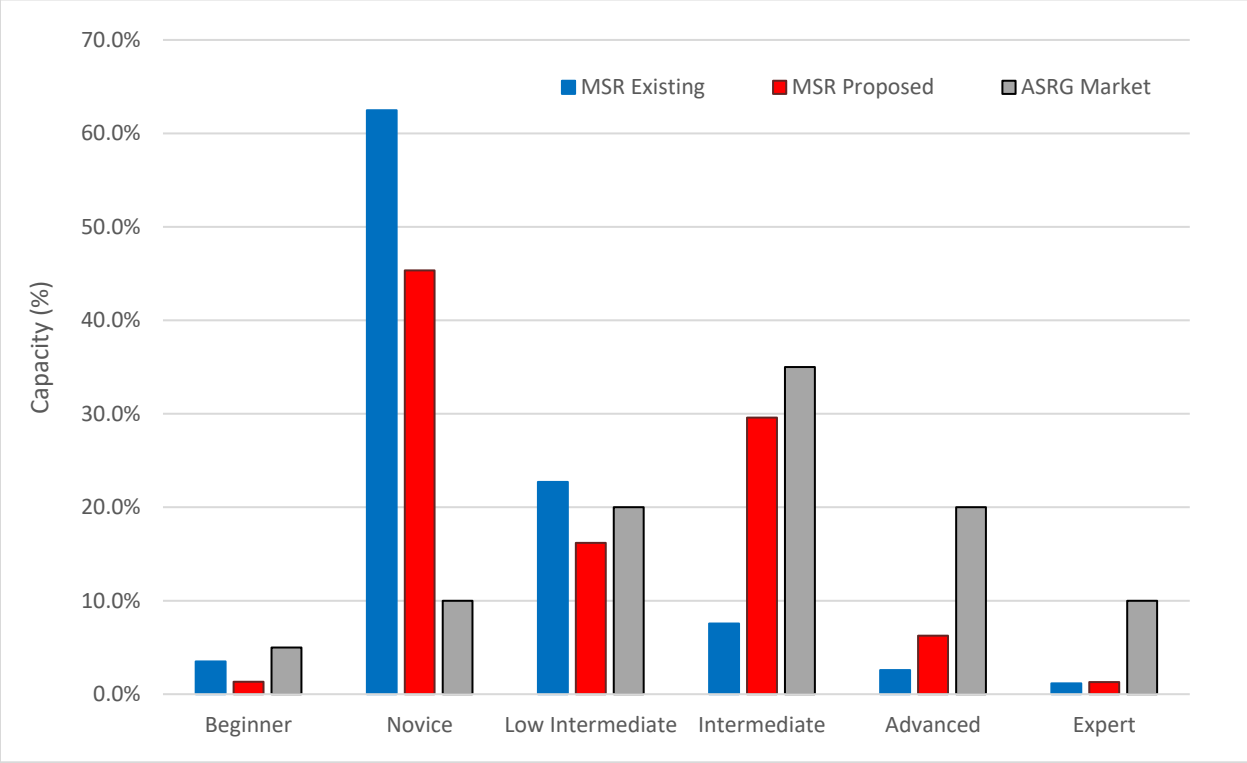
4.2.7 Alpine Terrain Distribution

The design of the ski trails was carefully planned to ensure that the proposed development of the ski terrain closely approximates the distribution of the skier marketplace. The terrain distribution assessment is important to ensure that the currently accepted market segmentation is represented in the ski trail network. Table 4-3 and Chart 4-1 illustrate the overall distribution assessment of the proposed buildout condition at MSR. They also compare the proposed distribution to the existing and market distributions. This demonstrates that the proposed trail development at buildout provides a much more balanced product than what is currently offered.

Table 4-3. Terrain Distribution Assessment

Market Distribution	Mt Seymour Existing	Mt Seymour Proposed	ASRG Market
Beginner	3.5%	1.3%	5%
Novice	62.0%	45.3%	10%
Low Intermediate	23.0%	16.2%	20%
Intermediate	7.7%	29.6%	35%
Advanced	2.6%	6.3%	20%
Expert	1.2%	1.3%	10%

Chart 4-1. Terrain Distribution Assessment



As illustrated above, the proposed ski terrain expansion will significantly increase the proportion of intermediate ski terrain available, which is currently lacking at MSR. Importantly, this is the largest segment of the skier marketplace and one that every resort should cater to. Similarly, though not to the same degree, the proposed expansion will increase the proportion of advanced ski terrain offered at MSR. Beginner, novice, and low intermediate ski terrain will continue to dominate the ski runs available at MSR, aligned with their reputation and to maintain their position as the resort where Vancouverites learn to ski.

4.2.8 PROPOSED SKI LIFT INVENTORY & UPHILL CAPACITY

Directly related to the goal of balancing the skier skill class distribution with the market distribution, the downhill capacity of the ski terrain must be balanced with the uphill capacity of the ski lifts. To achieve this, the mountain plan must also anticipate skier movement and circulation patterns throughout the ski day. This involves detailed disbursement modelling and staging analysis to ensure that skiers on slopes, lifts, lift lines, and support facilities are accounted for. From this, the appropriate capacity of the uphill infrastructure is determined.

The proposed ski lift system is planned to provide the uphill capacity to balance the downhill capacity of the alpine trail network. Table 4-4 illustrates the specific characteristics, capacities, and design parameters for each existing and proposed ski lift. At buildout, MSR will have increased its ski lift inventory from 4 to 14. Figure 4-1 illustrates the existing and proposed ski lifts at buildout.

Table 4-4. Existing and Proposed Ski Lifts

	Lift Type	Vertical Drop (m)	Slope Length (m)	Hourly Capacity (Theor.)	Hourly Capacity (Actual)	Weighted Vertical Demand	Loading Efficiency	Guest Visit (hrs)	Access Reduction	Uphill CCC
Existing										
Brockton Chair	2C	75	341	1,200	1,200	1,938	95%	4	0%	176
Goldie Magic Carpet	MC	31	128	3,000	2,000	844	80%	4	0%	235
Mystery Peak Express	D4C	205	1,027	2,200	2,200	1,451	95%	4	17%	982
Lodge Chair	2C	86	423	2,000	1,600	1,078	90%	4	0%	460
Total Existing			1,919	8,400	7,000					1,853
Proposed										
Ridge Chair	2C	122	435	1,200	1,200	1,793	85%	4	0%	278
Summit Chair + Extension	4C	282	994	2,000	1,800	2,205	85%	4	13%	684
Percy Chair	4C	224	700	2,000	1,600	1,836	85%	4	0%	664
De Pencier Chair	4C	402	1,018	2,000	1,800	2,130	85%	4	0%	1,155
Mushroom Carpet	T	30	114	1,200	1,000	1,000	85%	4	0%	112
Flower Chair*	2C	130	402	1,200	800	0	85%	4	0%	0
Summit Access T-Bar*	T	33	310	1,200	1,000	0	85%	4	0%	0
De Pencier Return T-Bar*	T	30	114	1,200	1,100	0	85%	4	0%	0
De Pencier Exit Chair*	2C	249	263	1,200	800	0	85%	4	0%	0
Total Proposed			4,442	13,200	11,100					2,892
Total (All)			6,361	**21,600**	**18,100**					**4,740**

*These are transportation lifts and do not contribute to overall uphill capacity

BHA calculated the ski lifts' Peak Uphill CCC in alignment with industry and market trends that aim to provide a higher-density, family-oriented product. BHA calculated the proposed lift and trail capacities for buildout conditions using these design criteria. Combining the existing Peak Uphill CCC and the proposed additions results in a Peak Uphill CCC number of 4,740 skiers per day at buildout.

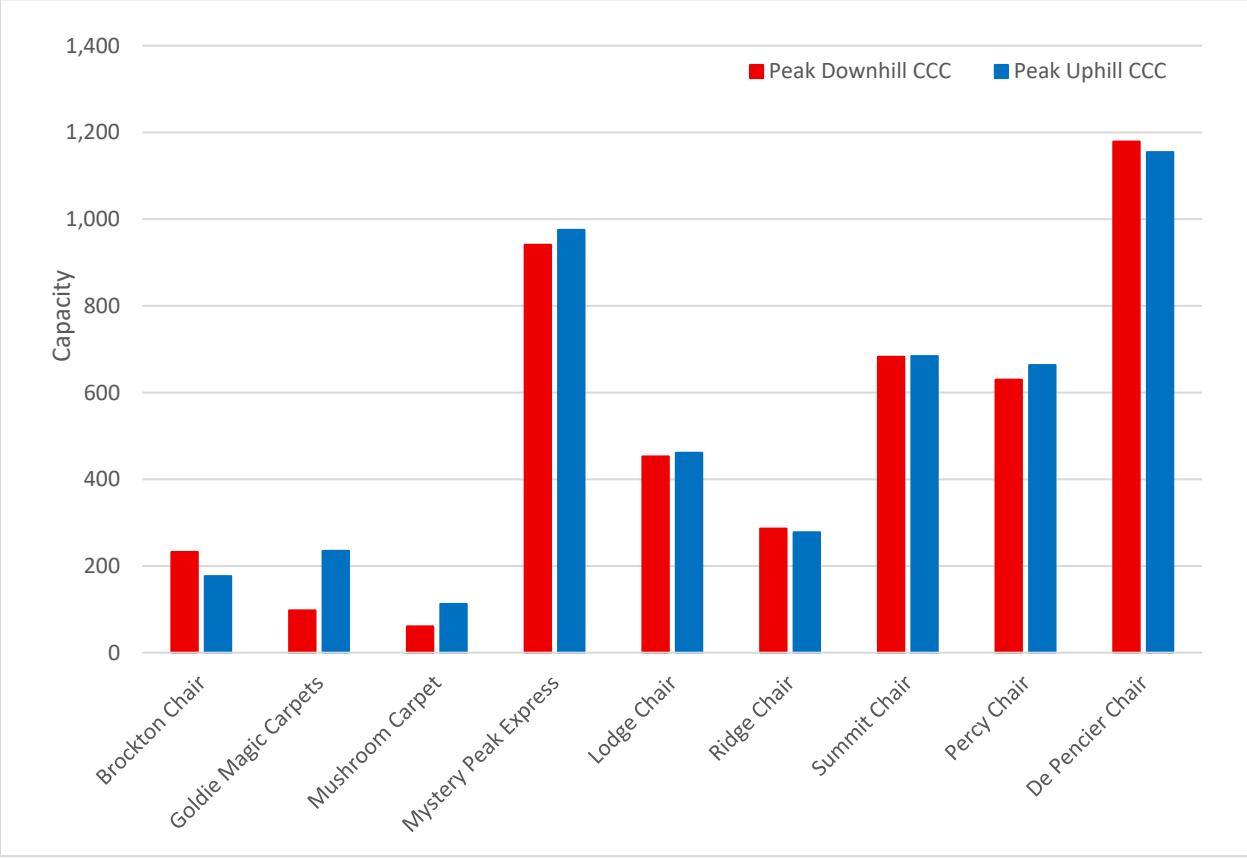
4.2.9 Proposed Lift Balance Assessment

The following summary demonstrates the balance between the proposed capacity of the lift infrastructure and the capacity of the associated trails:

Table 4-5. Peak Comfortable Carrying Capacity by Ski Pod

Lifts	Peak Uphill CCC	Peak Downhill CCC
Brockton Chair	176	232
Goldie Magic Carpets	235	98
Mushroom Carpet	112	61
Mystery Peak Express	975	941
Lodge Chair	461	453
Ridge Chair	278	286
Summit Chair	684	683
Percy Chair	664	630
De Pencier Chair	1,155	1,179
Total	**4,740**	**4,561**

Chart 4-2. Lift Balance Assessment at Buildout



As illustrated, the SRDP will address existing imbalances in ski pod capacity, and the proposed ski terrain expansion will balance uphill and downhill capacity while ensuring efficient circulation throughout the ski area.

4.2.10 Proposed Peak Comfortable Carrying Capacity

As detailed previously, the Peak Comfortable Carrying Capacity (CCC) measures the optimal number of skiers who can use the resort during its busiest period while ensuring a pleasant recreational experience without degrading the quality of the physical or socio-cultural environment. It is a dynamic number that accounts for the mountain's use throughout the day.

As illustrated in Table 4-5, based on the proposed lift configuration, the uphill capacity of the proposed and existing lifts is 4,740 skiers. As the uphill capacity of the lifts (4,740) surpasses the downhill capacity of the trails (4,561), the Peak CCC of MSR's proposed facilities is set at 4,561 skiers and snowboarders during the resort's busiest period. Utilizing the lower of the two values as the resort Peak CCC ensures that neither the Peak Uphill nor Peak Downhill CCC is exceeded.

4.3 Other Resort Attractions

In the past, MSR's winter activities have been focused on lift-accessed alpine skiing. However, greater effort has been placed on providing complementary attractions, such as snowshoeing and tubing, and on supporting activities in the surrounding parklands. Looking to the future, MSR understands that it will need to develop and improve a diverse range of alternative winter activities.

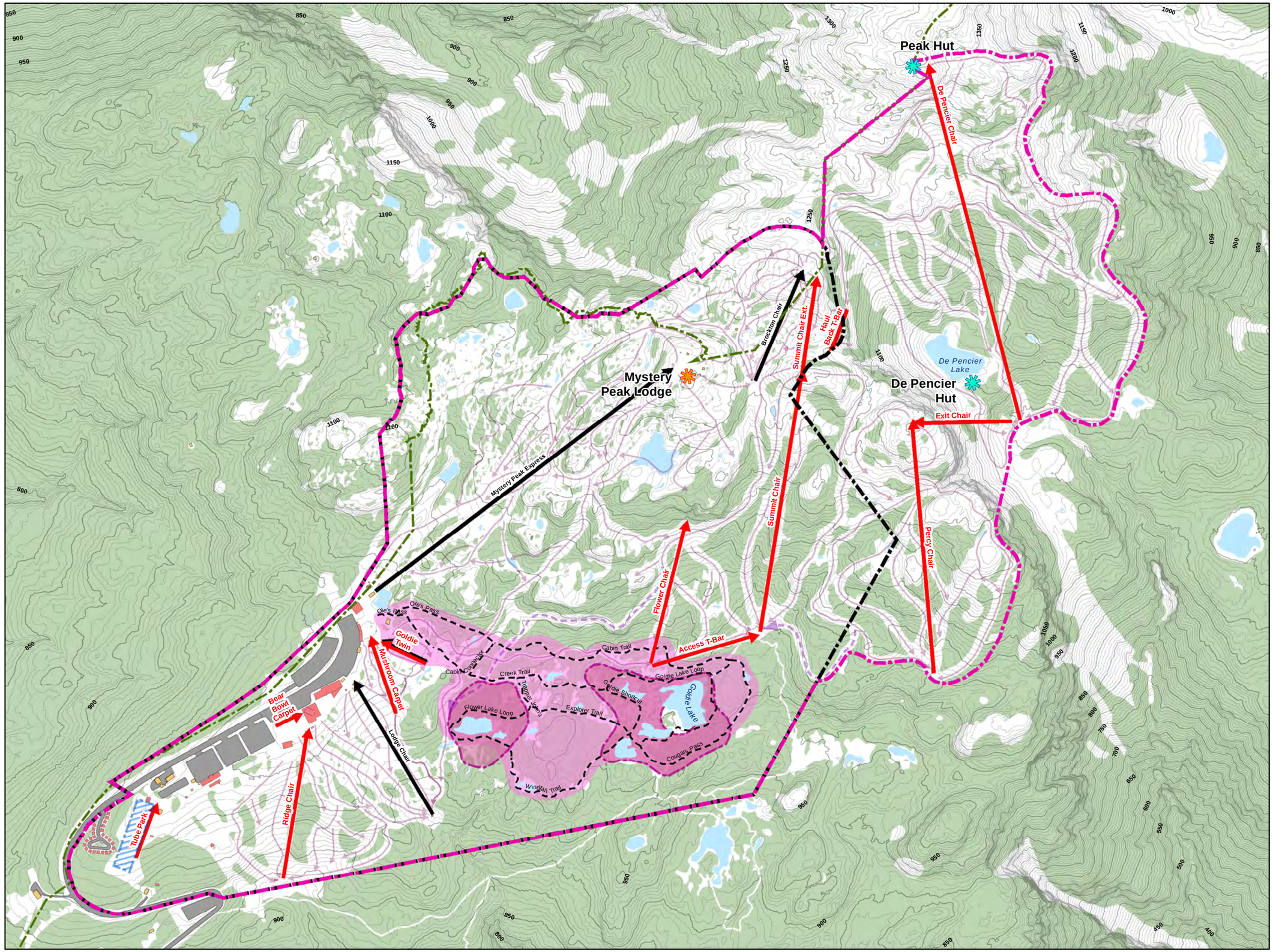
4.3.1 Other Winter Activities

Snowshoeing

As part of MSR's transition into an all-season resort, the Discovery Snowshoe Trails system will be improved and expanded as appropriate, with new multi-purpose trails. Further, opportunities to develop scenic viewpoints as new destinations and a wilderness warming hut around the Goldie Lake area will be explored. The area is easily accessible from the Three Peaks Lodge and the primary parking and staging areas. The expanded snowshoeing trail network is anticipated to attract 250 guests to MSR during its busiest periods.

Tubing

As described in Section 4.2.3, the Enquist Tube Park and tobogganing area at Mt Seymour Resorts will be relocated to slopes just south of the Enquist Lodge. The improved, larger tube park will increase user capacity and is expected to attract 400 guests at peak times.



Mt. Seymour Resort
Resort Development Plan
2025

Legend

- Proposed CRA
- Mt Seymour Existing CRA
- Mount Seymour Provincial Park
- Existing Ski Runs
- Proposed Ski Runs
- Existing Snowshoe Trails

Winter Use Areas

- Multi-Purpose Trail Network
- Proposed Glamping

Proposed Mountain Facilities

- Restaurant/Cafe
- Warming Hut

Planning by:

BHA
4-1005 Alpha Lake Road,
Whistler, BC, Canada V8E 0H5
Tel: 604 932 7002
email: bha@brentharley.com
website: www.brentharley.com

Prepared for:

Mt. Seymour Resort Ltd.
1700 Mt. Seymour Road
North Vancouver, BC, Canada V7G 1L3
Tel: 604 986 2261
email: snow@mtseymour.ca
website: www.mtseymour.com

1:10,000

0 100 200 400 Meters

Other Resort Attractions

Figure 4-5

This page has intentionally been left blank.

Mt. Seymour Resort
Resort Development Plan
2025

Legend

- Proposed CRA
- Mt Seymour Existing CRA
- Mt. Seymour Provincial Park
- Existing Snowshoe Trails
- Existing Hiking/Pedestrian Trails

Proposed Summer Use Areas

- Aerial Adventure
- Disc Golf Course
- High Alpine Activity Zone
- High Elevation Adventure Pod
- Learn to Ride MTB
- Multi-purpose Trail Network
- Proposed Glamping
- Summer Activity Zone

Proposed Mountain Facilities

- Restaurant/Cafe
- Warming Hut

Planning by:

BHA
4-1005 Alpha Lake Road,
Whistler, BC, Canada V8E 0H5
Tel: 604 932 7002
email: bha@brentharley.com
website: www.brentharley.com

Prepared for:

Mt. Seymour Resort Ltd.
1700 Mt. Seymour Road
North Vancouver, BC, Canada V7G 1L3
Tel: 604 986 2261
email: snow@mtseymour.ca
website: www.mtseymour.com

1:10,000

0 100 200 400 Meters

Mount Seymour Summer Use Plan

Figure 4-6

This page has intentionally been left blank.

4.4 PROPOSED SUMMER RESORT ACTIVITIES

As planned, the summer season at MSR will grow in prominence and importance at the Resort over time. It is anticipated that this will include cross-country mountain biking, aerial adventure, zip lines, alpine slide, via Ferrata, hiking and sightseeing. While further study and design are needed, the locations for the proposed summer resort activities will be located within one of three areas: High Alpine Activity Zone, Multi-purpose Trail Network, or the Summer Activity Zone. The summer resort activities are illustrated in Figure 4-6.

Mountain Biking

Through the SRDP, the Lodge, Ridge, and Goldie pods will be developed to support beginner, family-oriented, learn-to-ride mountain biking. Mt Seymour Resorts recognizes that the mountain biking experience on the mountain's lower slopes offers world-class intermediate-to-expert trails and is not looking to duplicate them. Instead, the mountain biking experience envisioned is designed to complement the established facilities at MSR, introduce people to the sport, be accessible to all experience levels and age groups, and be compatible with existing hiking and sightseeing offerings. The primary trails will be geared toward beginner and novice mountain bikers of all ages.

Following a well-proven design, the trails within the network will form a hierarchy by rider skill, with the wider, flatter trails serving as the primary, beginner-friendly routes, with secondary and tertiary trails branching off, each offering a progressively more difficult mountain biking experience. This approach to trail design is intuitive to guests, allows them to easily identify the skill level required for a given trail, and effectively separates riders of different skill levels and experiences.

MSR will adapt the Lodge Chair and possibly the proposed Ridge Chair to support mountain bikes, creating a lift-serviced mountain bike experience. It will also pursue opportunities to introduce Class 1 e-Mountain Bikes (pedal-assist) within the proposed trail network to make the trails more accessible to a range of guests. All the required equipment will be available through a rentals program and bike camps, and lessons will be available through a mountain bike school.

Further study and design remain to be completed and may result in one-way or single-use trails (e.g., hikers-only or mountain bikers-only). Trail development will always respect and preserve important culturally and environmentally sensitive areas.

Alpine Activity Zone

Mt Seymour Resorts is a popular destination for hikers, sightseers, and trail runners. Building on this, in addition to the proposed Multi-purpose Trail Network, MSR will look to develop an accessible trail network on the top of Mystery Peak and neighbouring summits along the De Pencier Bluff. Accessible via the Mystery Peak Express, the trail network would feature options for all ages, including those with mobility issues or small children, all the way up to challenging singletrack trails that may require ropes and chains to navigate. Paired with interpretive programming, views across Metro Vancouver and the Fraser Valley, and the proposed Mystery Peak Lodge, it will come to be the heart of MSR's summer alpine activities.

The Resort is uniquely positioned to cater to summer guests seeking to escape the urban rush and experience the area's amazing views. Moving forward, through the SRDP, Mt Seymour Resorts will work to enhance the trail user's experience by creating new destinations and viewpoints. These include the proposed on-mountain lodges (Sec. 4.7.4), viewpoints strategically located at high points along De Pencier Bluff, and offering essential services (e.g., washrooms, food, and beverages).

Adventure Zone

Within the CRA, MSR will look to develop several via Ferrata routes around De Pencier Bluff. A via Ferrata, or "iron road", is a well-defined alpine climbing route travelling through exposed areas. The climbing route is equipped with fixed, manmade structures to increase ease and security for climbers, and trained climbers typically guide groups. Mt Seymour Resorts intends to develop via Ferrata routes that cater to all experience levels, confidence levels, and physical abilities. Additionally, MSR will look to develop the De Pencier Skywalk, a horseshoe-shaped bridge that extends from De Pencier Bluff, offering guests an 'over the edge' experience and unparalleled views. Lastly, MSR is exploring options to develop a mountaintop suspension bridge as part of a condensed, high-alpine trail network easily accessible from one of the proposed on-mountain lodges.

Summer Activity Zone

The Summer Activity Zone would be developed in concert with the relocation of the Tube Park. It would feature an aerial adventure park, zip lines, and an alpine slide. The alpine slide would use the Tube Park slopes during the summer, with a synthetic sliding surface installed seasonally. The aerial adventure park and zip lines would be integrated into the surrounding forests and could operate year-round.

An aerial adventure experience combines wilderness hikes with playground activities in a playful, family-oriented atmosphere. Tree-top walks, rope ladders, and swings allow visitors to explore the forests and challenge their nerve and skills. A multi-line zip-lining course offers visitors a unique perspective on the surrounding landscapes and the rush of flying through the trees.

As envisioned, these facilities would be centred on and themed around the wilderness experience, with built structures seamlessly integrated into the forests in an unobtrusive manner intended to immerse guests in the forest. Interpretive signage would be developed and placed throughout the experience, highlighting features of the forest rarely seen by guests, and guided walks hosted by naturalists could be developed.

Base Village Programming

With its forest setting and stunning views of the Metro Vancouver region, MSR will expand its current event offerings to become a hub for mountain festivals, events, concerts, meetings, conferences, weddings, and general celebrations. The proximity of the Resort to a large urban population opens unique opportunities for evening and weekend events, such as a summer concert series or film screenings. Events and festivals would be organized to complement the other proposed summer and winter activities, keeping guests engaged in the mountain experience while they rest after participating in other physical and recreational activities. Mt Seymour Resorts anticipates hosting events ranging from 50 to 2,000 guests at a time.

All programming would be based out of the existing and proposed base area facilities, utilizing Day Lodges, parking areas, or ski trails as attraction spaces as needed.

4.5 Proposed All-Season Resort Amenities

Glamping

Glamorous camping, or 'Glamping', sits between car camping and cabins along the outdoor accommodation spectrum. Glamping is an all-season attraction that can provide a cool respite in the summer and a warm cabin feel in the winter while retaining a rustic wilderness experience. It involves semi-permanent tents or Yurts that are installed without a permanent foundation. These structures can be outfitted with wood-burning stoves, power, water, and sewer, depending on the climate and desired experience.

At MSR, the forests surrounding the Multi-purpose Trail Network have been identified as an ideal location for glamping. This area features a series of lakes and undisturbed forests and is easily accessible via the existing trail network. Further, it is far enough removed from the base area to separate guests from the sights and sounds of ongoing resort operations and guest activity, thereby maintaining a wilderness ambience while close enough to allow easy travel to and from base area amenities. Operating year-round, upon arrival, guests would be transported to their sites by shuttle or snowcat. Once settled, they could step out their front door onto the trail network for a hike or bike ride or organize transport back to the base area for a day of skiing (winter) or aerial adventure play (summer).

As planned, the glamping experience would complement existing and proposed recreation activities and act as an attraction in and of itself. As such, it is anticipated that the glamping experience will attract an additional 100 guests per day in all four seasons. As such, though further detailed design is required, MSR plans to develop approximately 20 tent/Yurt pads suitable for varying group sizes (e.g., 2 to 8) and desired experiences (e.g., rustic to supported).

Cabins

To complement the proposed glamping experience, MSR proposes a small enclave of small, self-contained cabins that offer all essential amenities, including water, heating, and power, with an added level of comfort compared to the yurts. These cabins would be conveniently located next to the Tube Park, providing easy access to winter tubing and summer activities such as the aerial adventure park and ziplines. At peak times, the cabins are expected to accommodate up to 100 guests per day.

Mountain Spa

To further diversify resort attractions and appeal to a wide range of guests, MSR plans to develop an all-season mountain spa experience. A Mountain spa combines professional spa services and treatments found in a typical spa with a relaxed mountain setting, and demand for these experiences has only grown in recent years.

Though a final site has not yet been identified and is dependent on further study, as envisioned, the mountain spa would be located near the base area core and the associated utilities, and paved

roads to facilitate guest access. The spa would maximize the feeling of seclusion and immersion in nature, integrated into the mountains and forests, with views extending across Metro Vancouver.

Guests could integrate their spa experience with other activities (e.g., skiing, snowshoeing/hiking, mountain biking) and the proposed glamping or dedicate their day to relaxation on the mountain. The spa would also offer treatments, such as massage, and opportunities to host related activities, such as yoga, which will be explored.

Given the growing popularity of these experiences and the significant potential at MSR offered by its wilderness setting and views of the region, the addition of a mountain spa is expected to attract 75 guests per day year-round.

4.6 Peak Balanced Resort Capacity at Buildout

As MSR matures, the capacity of the winter attractions will still exceed the proposed capacity of the summer attractions. As such, the effective Peak Balanced Resort Capacity (Peak BRC) of MSR is the capacity for alpine skiing, snowshoeing, and other winter attractions, plus additional passive guests. Table 4-6 shows that this equates to 5,953 visitors during its busiest period.

Table 4-6. Peak Balanced Resort Capacity at Buildout

Total Mtn CCC	**4,561**
Additional Activities (Winter)	
Snowshoe	250
Snowplay (Tubing/Tobogganing)	400
Glamping/Cabins	200
Total Additional	850
Total Facility Capacity	**5,411**
Passive Guests (10% of Capacity)	541
BRC	**5,953**

4.7 Base Area Development

The BHA Ski Resort Development Plan for the proposed improvements to the base area at MSR has been designed to complement the mountain's attributes and development opportunities. These developments will be undertaken gradually to remain balanced with the expansion of additional skiing and mountain resort attractions. The following describes the details of the various base-area developments, the rationale behind them, and their relationships with skiing and all-season attractions at MSR.

4.7.1 Base Area Development Goals

Specific to MSR's Base Area, the following development goals were applied to guide the details of the development plan:

- Develop the base area at MSR in a comprehensive and integrated fashion that caters to day-use guests.
- Ensure that all development respects environmentally sensitive areas and limits its environmental footprint and impact.
- Balance base area facilities with the Peak Balanced Resort Capacity.
- Encourage a more pedestrian-friendly base area environment.
- Provide enough parking to satisfy the full requirements of all peak period visitation.
- Improve the quality of all base area elements at MSR in a year-round capacity.

4.7.2 Base Area Planning Criteria

The appropriate size and scale of the base area facilities are directly linked to the capacity, location, and scope of the resort's attractions. The Balanced Resort Capacity (BRC) ultimately defines the size of MSR in terms of the number of visitors that can be expected at buildout. It is important to remember that this is a static picture of the finished resort in the future. In practice, the proposed development will be pursued in a series of phases leading from existing conditions to the buildout state.

The Peak BRC for MSR was calculated as 5,953 visitors per day. This defines the number of people that need to be catered to in terms of their expectations for a satisfying resort experience. By extension, this defines the total amount and type of built space that needs to be put in place. It also defines the infrastructure (e.g., sewer, water, and power) and parking requirements for the resort.

4.7.3 Built Space Requirements

At buildout, MSR must have sufficient built space to accommodate approximately 5,953 guests during the peak period on any given day. The types of built space necessary to meet the needs and expectations of guests range from restaurants, bars, rental and repair shops, guest services, ski school, patrol/first aid, and lockers to resort administration and employee facilities. Specific space use requirements for MSR are listed in Table 4-7. The total requirements at buildout are compared with the existing development to gauge the scale of development needed for MSR to be in balance in the future.

Table 4-7. Space Use Requirements for Buildout

	Peak CCC	4,561		
	Peak BRC	5,953		
Service/Function	**Existing Space**	**Space Required**	**Difference**	**% of Required**
Restaurants and Related Facilities				
Restaurant	3,582	25,629	-22,047	14%
Kitchen/Scramble	1,732	11,021	-9,289	16%
Bar/Lounge	1,216	4,485	-3,269	27%
Subtotal	**6,530**	**41,135**	**-34,605**	**16%**
Retail				
Equip Rental/Repair	6,518	15,466	-8,948	42%
Retail Sales	919	5,126	-4,207	18%
Subtotal	**7,437**	**20,592**	**-13,155**	**36%**
Skier Services				
Washrooms	2,896	7,807	-4,911	37%
Ski School	117	2,479	-2,362	5%
Ski Patrol/First Aid	1,037	2,455	-1,418	42%
Public Lockers	468	4,419	-3,951	11%
Ticket Sales	552	1,031	-479	54%
Subtotal	**5,070**	**18,191**	**-13,121**	**28%**
Operations / Storage				
Administration	4,363	6,720	-2,357	65%
Employee Lockers	1,169	4,419	-3,250	26%
Subtotal	**5,532**	**11,139**	**-5,607**	**50%**
Back of House				
Mechanical / Furnace	1,412	5,463	-4,051	26%
Storage	4,754	6,374	-1,620	75%
Circulation, Walls, and Waste	1,442	7,285	-5,843	20%
Subtotal	**7,608**	**19,122**	**-11,514**	**40%**
Total Built Space (Sq Ft)	**32,177**	**110,179**	**-78,003**	**29%**

As illustrated, as MSR develops to buildout, approximately 78,000 square feet will need to be added for the resort to be in balance with and complement the Peak BRC of 5,953 guests. This will bring the total amount of built space for facilities to approximately 110,000 square feet.

These numbers are intended to guide the content, type, size, and scale of facilities to be established at MSR. In the final analysis, the specifics of the base area facilities will be designed and located to meet the needs of guests and the realities of MSR. The pace of development will be market-driven and tied to improvements and expansions in skiing and resort attractions.

4.7.4 Base Development Areas

The Ski Resort Development Plan for Mt Seymour Resorts details the planned transformation of the base and staging areas in a manner that complements and is in balance with the proposed on-mountain developments, addresses existing and future challenges, and optimizes the use of the base area lands. The guest's experience, needs, and desired movement patterns guided the planning process for the base area. It resulted in a guest-oriented base area that is aligned with the vision for MSR as the starting gate for recreation.

The planned transformation of the MSR base area includes the addition of approximately 78,000 sq. ft. of built space designed to house skier services and oriented to create a pedestrian-scaled base area experience (Figure 4-7). The proposed buildings are centrally located, limiting the need for guests to walk between skier services (e.g., ski school and equipment rentals). It will also see the redevelopment of the parking and staging area to create additional capacity, improve bus access, and create an effective drop-off/pick-up area.

4.7.5 Mountain Facilities

There are a variety of facilities key to the successful operation of any mountain resort. The degree of impact and influence each has on the resort offering is directly tied to the envisioned product type. Specific to MSR, the size, scale and scope of the area dictate primary operational considerations, including day lodges, ski patrol, snowmaking, night skiing, grooming, and maintenance.

On Mountain Day Lodges

The existing day lodges, the Three Peaks Lodge and Enquist Lodge, offer an array of food and beverage services, and room for guests to enjoy a meal and warm up. However, the available space for guests will be insufficient to meet projected demand. Further, at present, the lodges are isolated spatially from high-use areas, notably the Mystery Peak Express and the proposed De Pencier Chair. With the intent of both meeting guest expectations and creating options throughout the resort, the SRDP proposes adding three new on-mountain facilities: the Mystery Peak Lodge, Peak Hut, and De Pencier Hut.

- Mystery Peak Lodge

The Mystery Peak Lodge is planned for the flat land just southeast of the upper terminal of the Mystery Peak Express. Its primary role would be to provide skier services sought by guests during their ski day (e.g., food and beverage, washrooms), as well as space for mountain operations (e.g., ski patrol, storage).

The Mystery Peak Express is currently the most popular ski pod at MSR, providing access to the largest pod of ski terrain. However, its lower terminal is approximately 350 m from the Three Peaks Lodge, forcing skiers to walk to access skier services (e.g., food and beverage, washrooms). Relatedly, as MSR grows, the resort's day lodge space will need to increase by approximately 34,000 sq. ft.

While additional capacity will be added to the existing lodges, developing a new lodge at the top of the Mystery Peak Express as part of efforts to address these challenges creates ski-in/ski-out facilities with greater skier access, provides spectacular views of Metro Vancouver, and can easily be developed as an all-season facility, supporting summer use activities, such as hiking, or serving as a setting for events, such as weddings.

- Peak Hut

As proposed, the De Pencier Chair and associated ski terrain will surpass the Mystery Peak Chair in capacity, and the unique ski terrain it will create (see Sec. 4.2.3) is anticipated to become a primary destination for skiers. However, the characteristics that make the De Pencier Chair an attraction will also make it somewhat isolated from existing and proposed lodge facilities. The proposed Mystery Peak Lodge would be the closest facility, but would still require skiers to leave the De Pencier ski pod.

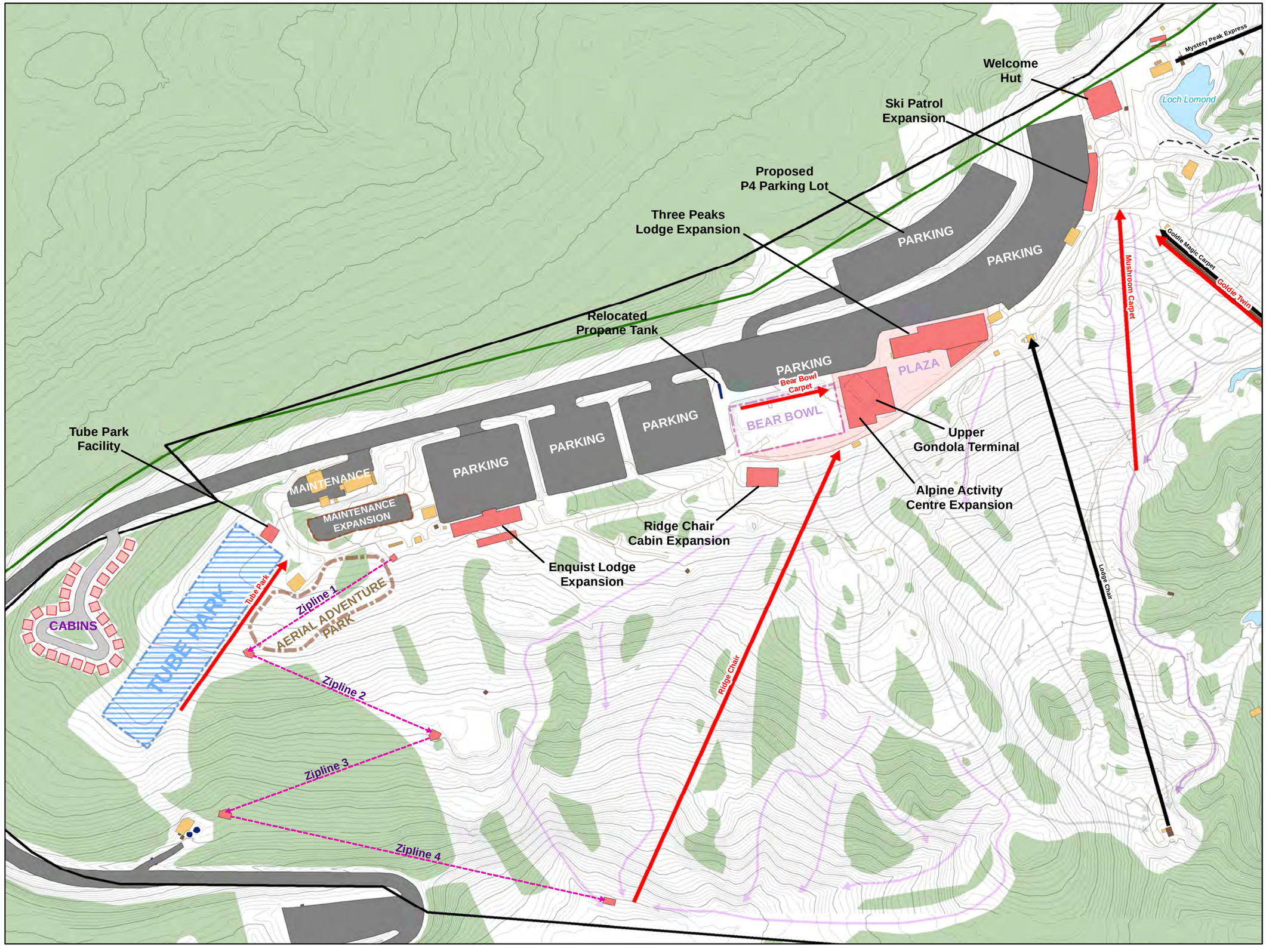
To address this, MSR proposes developing a small, café-style lodge near the upper terminal of the De Pencier Chair. It would provide similar advantages as the Mystery Peak Lodge, proactively addressing issues of guest access to essential skier services (e.g., washrooms, food, and beverage) and providing panoramic views of the region. If desired, the Peak Hut could operate year-round, serving as a hiking destination in the summer or an events space. Given its proximity to the popular backcountry access routes, the Peak Hut would be open to members of the public who are ski touring, snowshoeing, and hiking to First Peak and beyond.

As envisioned, the Peak Hut would not be of the same scale as the Three Peaks Lodge or the proposed Mystery Peak Lodge. Instead, it would offer limited food and beverage services (e.g., soup and baked goods), washroom facilities, and a mix of indoor and patio seating. Space would also be provided to support ski patrol and mountain operations within the De Pencier ski pod.

- De Pencier Hut

In contrast to the Mystery Peak Lodge and Peak Hut, the De Pencier Hut is planned as a warming hut, only offering washrooms and a heated seating area. Located next to De Pencier Lake, near the lower terminal of the De Pencier Chair, it is intended to serve as a place to rest and warm up and will complement the space provided by the Peak Hut, ensuring there is adequate on-mountain built space in the De Pencier ski pod.

At present, the De Pencier Hut is planned to be a winter-only hut, as no summer activities or programming are planned for the area.



Mt. Seymour Resort
Resort Development Plan
2025

Legend

- Controlled Recreation Area
- Mt. Seymour Provincial Park
- Existing Snowshoe Trails
- Proposed Lift
- Existing Lift
- Existing Ski Runs
- Proposed Ski Runs
- Proposed Buildings
- Proposed Parking

Planning by:

BHA

4-1005 Alpha Lake Road,
Whistler, BC, Canada V8E 0H5
Tel: 604 932 7002
email: bha@brentharley.com
website: www.brentharley.com

Prepared for:

Mt. Seymour Resort Ltd.
1700 Mt. Seymour Road
North Vancouver, BC, Canada V7G 1L3
Tel: 604 986 2261
email: snow@mtseymour.ca
website: www.mtseymour.com

1:3,000

0 25 50 100 Meters

Proposed Base Area at Buildout

Figure 4-7

This page has intentionally been left blank.

Three Peaks Lodge and The Plaza

The Plaza and the associated expansion of the Three Peaks Lodge will realize the need for a distinct, pedestrian-focused base area at MSR. Effectively isolated from the parking areas and vehicle traffic by the revised base are buildings, The Plaza will feature as a multipurpose space, offering expansive patio seating, including covered/heated options, serviced by the expanded Three Peaks Lodge, food trucks, or outdoor beer garden. Picnic tables, Adirondack chairs, and café tables would be arranged appropriately, accentuated by fire pits for cold nights or family marshmallow roasts, and a stage for live music or events (e.g., film screenings). It would be easily transitioned to support an array of festivals or events, with booths or tables ringed around the perimeter. And it would provide some of the best views found anywhere in Vancouver, the entire space offering a panoramic view of the Fraser Valley.

Ski Patrol

The phased development of ski patrol facilities is a key component of a well-planned and effectively managed mountain operation. Design considerations include the need to provide on-snow, emergency toboggan access to medical facilities and vehicular and ambulance access to injured or sick guests. Mt Seymour Resort's existing ski patrol facilities will be maintained and expanded as needed to ensure the timely and effective delivery of first aid and rescue services. As planned, developing the Mystery Peak Lodge and Peak Hut would also provide storage space for these services.

Night Skiing

Mt Seymour Resorts offers night skiing on 13 runs split between the Mystery Peak Express and Lodge Chair. Current power infrastructure can support additional night skiing and, as planned, would be extended to the Ridge, Summit, and Percy ski pods. However, the expansion of night skiing will be considered based on resort visitation, operational realities, and MSR's priorities.

Grooming

Ski trail grooming is required to create ski terrain suitable for beginner, novice, and intermediate skiers, and to develop early-season snowfall into a suitable snowpack that will last for the season. Mt Seymour Resort's well-established grooming program is based out of the existing maintenance yard, south of the base area. As new ski terrain is developed, MSR will adjust and expand, where needed, its ski grooming capabilities to ensure that skiers have access to sufficient groomed ski terrain and that grooming activities can be completed in a timely, efficient fashion.

Maintenance

The existing maintenance facility at the south end of the base area will remain the primary maintenance facility, and it will be incrementally expanded to provide more space and storage to match the Resort's needs as it expands.

4.7.6 SNOWMAKING

The winter snowpack on the North Shore Mountains is expected to decline and become less predictable because of climate change. Mt Seymour Resorts will require a snowmaking system to offset increasing climate variability and ensure a reliable snowpack during the ski season. As planned, the snowmaking system would be designed and scaled to cover existing and proposed ski trails open for night skiing (Fig. 4-8). The intention will be to first deploy snowmaking to high-use and vulnerable areas at lower elevations, such as the Goldie, Ridge, and Lodge Chair Pods and proposed Tube Park, and gradually expand the system to cover higher-elevation terrain, such as Mystery Peak Express and the proposed Summit and Percy Chairs. This will help ensure that MSR will be open for early-season skiing and activities through to early spring.

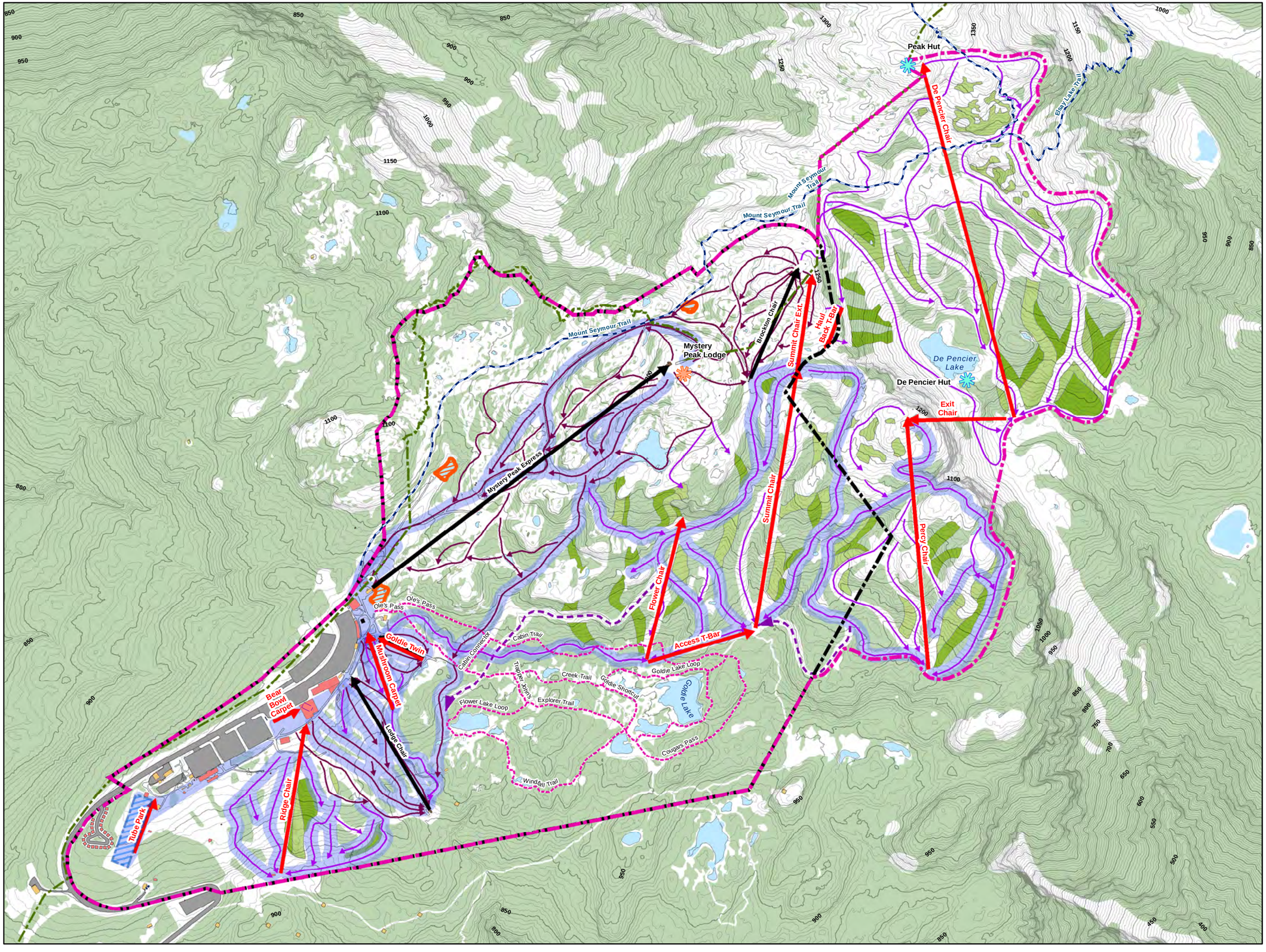
4.7.7 PROPOSED PARKING

With the growing popularity of the Mount Seymour area, parking capacity has become a growing challenge for MSR. With the envisioned changes to the mountain and base-area lands, parking pressure will only increase. MSR's strategy to address growing parking demand is not limited to an expansion of the parking area but is also focused on affecting behaviour change in guests and promoting transportation methods that increase rider density (e.g., shuttles, ridesharing) and eliminate the need for vehicles (e.g., links with public transit, shuttles, gondolas). Further, MSR recognizes that this challenge affects the whole of Mount Seymour Provincial Park and the surrounding lands managed by Metro Vancouver Regional District. Building on past collaborations, MSR will work with BC Parks and the Regional District to develop alternative travel options to MSR.

Based on buildout conditions, MSR will need to accommodate 5,953 guests during its busiest periods. It will meet this requirement through:

- A 40% increase in the parking area and improved organization of the parking area, resulting in 515 additional parking stalls.
- Continued active management by MSR and the application of a reservations system and time windows to limit the number of vehicles at one time.
- Implement an incentivization program for ridesharing/carpooling, which could include. priority parking and access, and discounts on food and drinks, among others.
- Increased shuttle frequency from regional pick-up points.
- Increased parking for buses serving groups or charters (e.g., schools).
- Development of a gondola with access from the development at the foot of the mountain.

These actions are projected to address the anticipated future parking demand at MSR.



Mt. Seymour Resort Resort Development Plan 2025

Legend

- Mt Seymour Existing CRA
- Proposed CRA
- Mt Seymour Provincial Park
- Existing Lifts
- Proposed Lifts
- Proposed Access
- Proposed Ski Runs
- Existing Ski Runs
- Existing Winter Backcountry Access Routes
- Existing Snowshoe Trails
- Proposed Buildings

Proposed Snowmaking Areas

- Snowmkaing
- Potential Snowmaking Reservoirs

Winter Activities

- Potential Tube Park

Proposed Glading

- Dense Glading
- Thin Glading

Proposed Mountain Lodges

- Restaurant/Cafe
- Warming Hut

Planning by:

BHA

4-1005 Alpha Lake Road,
Whistler, BC, Canada V8E 0H5
Tel: 604 932 7002
email: bha@brentharley.com
website: www.brentharley.com

Prepared for:

Mt. Seymour Resort Ltd.
1700 Mt. Seymour Road
North Vancouver, BC, Canada V7G 1L3
Tel: 604 986 2261
email: snow@mtseymour.ca
website: www.mtseymour.com

1:10,000

0 100 200 400 Meters

Proposed Snowmaking Buildout

Figure 4-8

This page has intentionally been left blank.

4.7.8 Alternative Transportation – Mt Seymour Gondola

As part of efforts to address the current and future parking challenges at Mt Seymour Resorts for activities in the Resort, Mount Seymour Provincial Park, and on lands managed by Metro Vancouver, MSR will work with these partners to study the possibility of a gondola extending from the lower elevations of Mount Seymour to the expanded resort base area.

Gondolas are increasingly being employed in resort and recreation contexts where onsite parking capacity is limited or where additional vehicles would detract from the desired experience. The development of a gondola at MSR would address parking capacity issues at the resort and reduce traffic on Mount Seymour Road. However, it would need to be developed in conjunction with additional traffic mitigation measures (e.g., shuttles and additional offsite parking).

The concept of a gondola connecting the lower elevations of Mount Seymour with the MSR base area was explored in a survey of Park users (*Mount Seymour Provincial Park Access and Development Study*, 2018). The results indicate that this proposal was polarizing among respondents, with approximately half strongly in favour and half strongly opposed. Addressing the concerns of those opposed will be integral to any further design work with this option.

As shown in Figure 4-7, the proposed base area is designed to accommodate a gondola terminal at a future stage. Further, based on the physical realities of the larger area, BHA developed two potential gondola alignments that demonstrate the potential of this transportation option. The pros and cons of the lower terminal locations remain to be fully explored in collaboration with BC Parks, First Nations, stakeholders, and the public.

4.7.9 Sustainability Characteristics

The ongoing development at MSR will adapt and implement sustainability best practices. The intent is to ensure that the development of all elements of the resort is environmentally sensitive, designed to maintain the ecological integrity of the setting and mitigate impacts on affected areas. Aside from being the right thing to do, MSR recognizes that any guest patronizing the resort is escaping their day-to-day realities. They are invariably most interested in visiting a place that respects the special qualities of its setting. To that end, MSR will:

- Incorporate design guidelines that include green building objectives, criteria, and minimum standards.
- Incorporate resort-wide sustainable procurement strategies.
- Incorporate a bear-aware management strategy.
- Use riparian habitat protection best practices on all watercourses.
- Restore damaged riparian habitat from previous development.
- Incorporate a trail development plan to avoid the removal of large and old-growth trees and enable appropriate on-the-ground trail alignment adjustments.
- Incorporate soil erosion best practices to minimize the loss of valuable topsoil and associated vegetation.
- Plan and design to minimize requisite grading.
- Utilize renewable energy systems (e.g., solar, geothermal) when possible.

4.8 SERVICING AND INFRASTRUCTURE

4.8.1 INTRODUCTION

As the development of MSR progresses, the water, sewer, and power utilities will need to be improved and upgraded. In all cases, state-of-the-art technologies should be applied to keep environmental impacts to an absolute minimum. Per the current Park Use Permit, BC Parks is responsible for the capital costs of these utilities, while MSR is responsible for their operation and maintenance. The team at MSR will continue to collaborate with and support BC Parks as it plans and implements the needed upgrades.

4.8.2 WATER

Potable water as MSR is provided by a local reservoir and monitored regularly to ensure Provincial water quality standards are met. Based on records from the 2023/24 season, MSR guests use approximately 7.8 million litres of water annually, or 23 L per guest visit. Detailed engineering has not been completed, but assuming the same per capita usage, projected potable water demand at MSR will increase to 17.4 million litres of water annually. However, with the application of water-saving technologies (e.g., faucets, toilets, kitchen appliances) and the elimination of leaks through infrastructure upgrades, the total water demand will likely be significantly less than this estimate. MSR will continue to work with BC Parks on the review and design of future water systems.

In addition to potable water, the proposed snowmaking system will generate water demand as it is gradually brought online. At buildout, the total area of the ski terrain covered will be approximately 37.7 ha (Fig. 4-8) and is projected to require approximately 79 million litres of water annually during winter. No additives will be used to support the snowmaking process. Further study to support water licences will be required to establish minimum stream flows and to preserve aquatic and riparian ecological values within and downstream of the CRA.

4.8.3 SEWAGE

Mt Seymour Resorts is serviced by a 170 m^3 wastewater treatment plant (WWTP) that was installed by BC Parks around 1956. The system had been in operation well beyond its intended design life, and a recent assessment of the WWTP concluded that it should be replaced. Despite its age, the current WWTP and related wastewater infrastructure have enough capacity to meet the short-term projected growth in visitation for both Mount Seymour Provincial Park and MSR. However, significant improvements to MSR's wastewater treatment system will require the renewal and expansion of the current infrastructure. BC Parks has initiated a process to review, plan, design, and install a new WWTP.

4.8.4 Power

Mt Seymour Resorts receives its power via a transmission line running up the mountain from the adjacent District of North Vancouver. The current transmission line (12.5 kV), as well as the substation in the base area, will need to be upgraded to meet current and projected demand. MSR has initiated conversations with Fortis BC to assess demand and the opportunities to upgrade its on-mountain substation.

4.8.5 Fire Protection

Mount Seymour Provincial Park is required to have a Wildfire Management Plan under the BC Parks Conservation Policy (2014). However, one does not exist at this time but will be developed as part of the larger Park Management Plan for Mount Seymour Provincial Park, which is currently being drafted.

Wildfire response for Mt Seymour Resorts is provided by the BC Wildfire Service, which is tasked with managing, preventing, and mitigating forest fires on Crown land within the Province of BC.

4.9 Proposed Adjustment of the Controlled Recreation Area Boundary

Under the terms of the current Park Use Permit, the current Controlled Recreation Area (CRA) Boundary extends beyond the park boundaries into lands managed by the Metro Vancouver Regional District. The overlap between jurisdictions has created confusion and complications for all sides, ultimately limiting the effective use of lands within the CRA. Accordingly, parallel with the approval of the SRDP, the boundaries of the CRA, Park, and Metro Vancouver lands should be brought into alignment.

As illustrated in Figure 4-9, the existing CRA is approximately 235 ha (580 acres). However, the CRA boundary must be expanded to approximately 334 ha (825 acres) to include the proposed ski terrain. The developments proposed in the SRDP depend on whether the CRA is expanded or maintained in its current form. The boundaries are included here to indicate the existing extent of the CRA and its potential expansion, but it is recognized that any boundary realignment will require discussion between Mt Seymour Resorts Ltd. and BC Parks and will follow BC Parks' Provincial Protected Area Boundary Adjustment Policy, Process and Guidelines.

4.10 Backcountry Recreation and Access

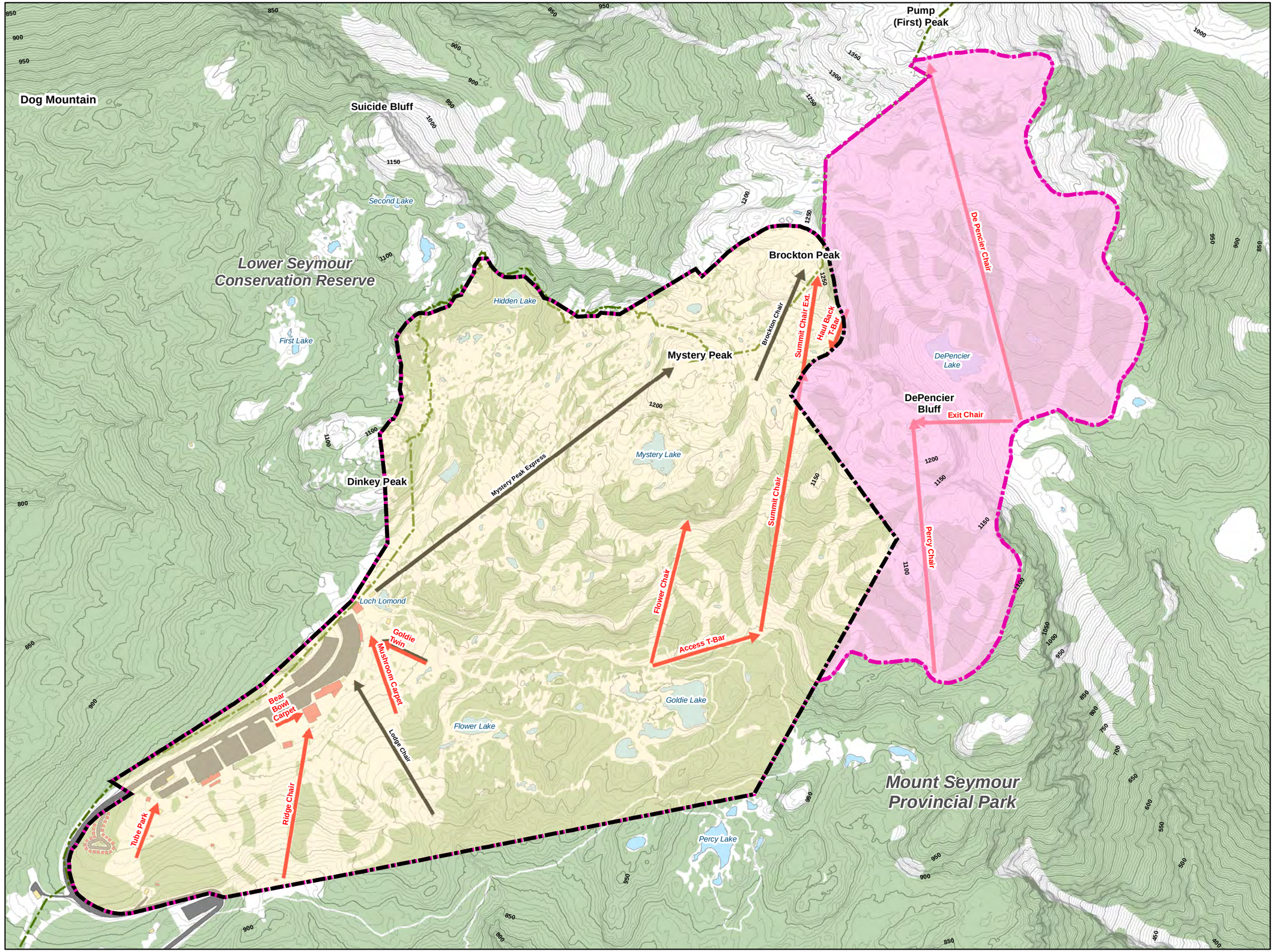
Backcountry skiing, snowshoeing, and hiking are ever-popular activities and are part of the history and fabric of Mount Seymour Provincial Park. Currently, the Alpine Access Trail, which provides access to First Peak and Elsay Lake, runs through the CRA, past Mystery Peak, and on to Brockton Summit. With the addition of the proposed De Pencier chair, an additional segment of the Alpine Access Trail will fall within the CRA.

Mt Seymour Resorts is committed to preserving and enhancing the backcountry access route through the CRA[8] to First Peak, Elsay Lake, and areas beyond. Through the SRDP, MSR will work to ensure continuing and improved backcountry access, including:

- identifying and developing an optimized alignment better suited to uphill travel for skiers, snowshoeers, and hikers;
- widening the trail to better support concurrent uphill and downhill travel;
- active maintenance (e.g., grooming) of key segments;
- active management of locations where downhill and backcountry uses intersect; and,
- a dedicated backcountry skiing return route through the CRA from Brockton Summit.

The proposed backcountry access plan is illustrated in Figure 4-10.

[8] A free Exclusion of Liability waiver, available at the BC Parks Kiosk near the bottom of Mystery Peak Chair, will be required for travel through the CRA.



Mt. Seymour Resort
Resort Development Plan
2025

Legend

- Existing Lifts
- Proposed Lifts
- Mt Seymour Existing CRA
- Proposed Ski Area
- Mount Seymour Provincial Park

Planning by:

BHA

4-1005 Alpha Lake Road,
Whistler, BC, Canada V8E 0H5
Tel: 604 932 7002
email: bha@brentharley.com
website: www.brentharley.com

Prepared for:

Mt. Seymour Resort Ltd.
1700 Mt. Seymour Road
North Vancouver, BC, Canada V7G 1L3
Tel: 604 986 2261
email: snow@mtseymour.ca
website: www.mtseymour.com

1:10,000

0 100 200 400 Meters

Mount Seymour Administrative Boundaries

Figure 4-9

This page has intentionally been left blank.

Mt. Seymour Resort
Resort Development Plan
2025

Permanent Backcountry Access Corridor

Backcountry Gate
Return via Ski Trails

Permanent Backcountry Access Corridor

Backcountry Trail Access & Liability Waiver Pick-up

Peak Hut
De Pencier Chair
Elsay Lake Trail
Mount Seymour Trail
Mount Seymour Trail
Mount Seymour Trail
Buckton Chair
Summit Chair Ext.
Haul Back T-Bar
Mystery Peak Lodge
De Pencier Lake
De Pencier Hut
Exit Chair
Mystery Peak Express
Mystery Lake
Summit Chair
Percy Chair
Flower Chair
Access T-Bar
Hastings Lake
Ole's Pass
Ole's Pass
Goldie Twin
Mushroom Carpet
Cabin Connector
Cabin Trail
Creek Trail
Trapper John's
Explorer Trail
Goldie Lake Loop
Goldie Shortcut
Goldie Lake
Flower Lake Loop
Flower Lake
Cougars Pass
Windfall Trail
Percy Lake
Bear Bowl Carpet
Ladder Chair
Ridge Chair
Tube Park
Zipline 1
Zipline 2
Zipline 3
Zipline 4

Legend

- Permanent Backcountry Access Corridor
- Proposed Backcountry Gates
- Mt Seymour Existing CRA
- Proposed CRA
- Mt Seymour Provincial Park
- Existing Terrain Parks
- Existing Lifts
- Proposed Lifts
- Existing Ski Runs
- Existing Winter Backcountry Access Routes
- Existing Snowshoe Trails
- Proposed Buildings

Summer Use Areas

- Aerial Adventure Park

Winter Activities

- Potential Tube Park

Proposed Mountain Lodges

- Restaurant/Cafe
- Warming Hut

Planning by:

BHA
4-1005 Alpha Lake Road,
Whistler, BC, Canada V8E 0H5
Tel: 604 932 7002
email: bha@brentharley.com
website: www.brentharley.com

Prepared for:

Mt. Seymour Resort Ltd.
1700 Mt. Seymour Road
North Vancouver, BC, Canada V7G 1L3
Tel: 604 986 2261
email: snow@mtseymour.ca
website: www.mtseymour.com

1:10,000

0 100 200 400 Meters

Backcountry Access

Figure 4-10

This page has intentionally been left blank.

4.11 Climate and Economic Assessment of Proposed Development

4.11.1 Climate Assessment

The growing influence of climate change presents a challenge to ski areas across British Columbia. Changes in temperature and precipitation regimes will alter the timing and amount of annual snowfall, influencing the season length and the quality of the guest experience. These changes threaten MSR's existing alpine skiing and snowplay offerings but may also provide opportunities for expanded spring and summer recreation activities. A greater understanding of the potential impacts of climate change and the resulting implications for MSR is needed.

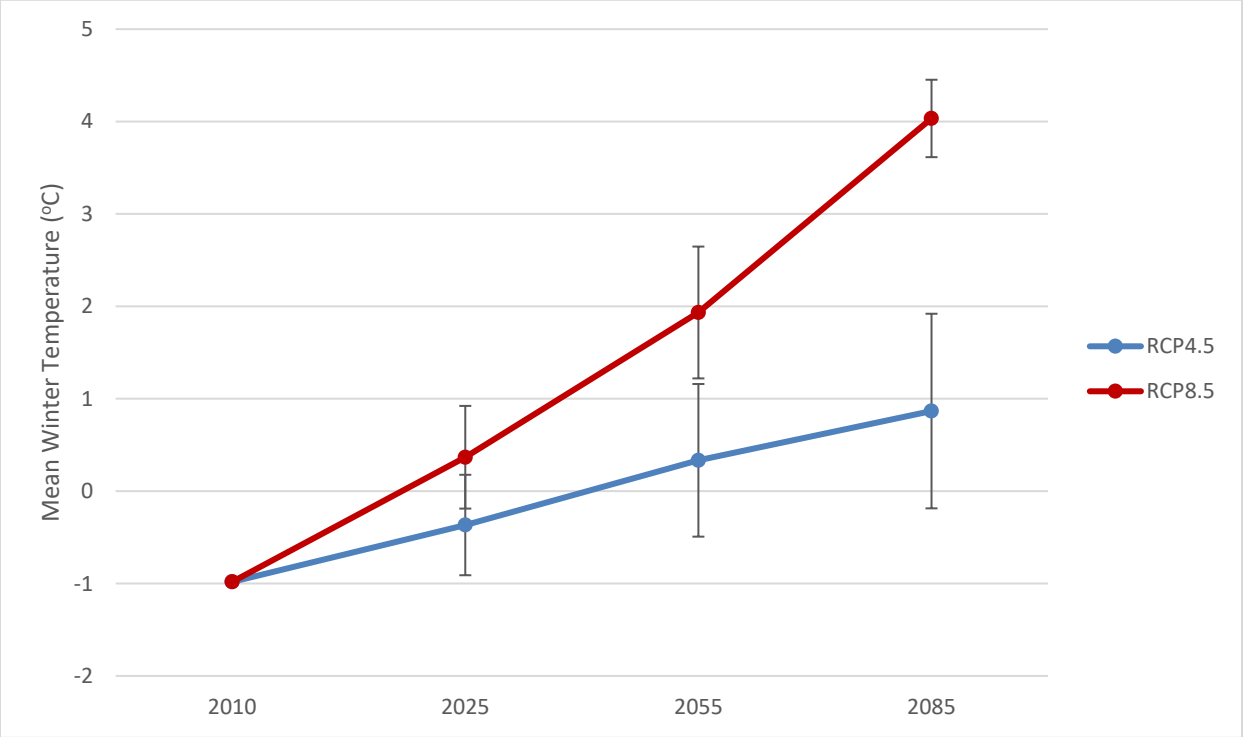
To assess future climate change at Mt Seymour Resorts and its potential impacts, projections were generated for Mean Winter Temperature, Winter Degree Days < 0 °C, and Mean Winter Snowfall to 2085 using the ClimateBC online tool[9]. Projections were based on two future climate scenarios, or Representative Concentration Pathways (RCP). Representative Concentration Pathways are greenhouse gas concentration scenarios that capture a range of possible greenhouse gas emissions. They were developed as part of the Intergovernmental Panel on Climate Change's Fifth Assessment Report (IPCC AR5) and are intended to help with climate change modelling and projections. There are four RCPs: 2.6, 4.5, 6, and 8.5. These values refer to the projected radiative forcing (heat gained from the sun minus heat lost to space) in the year 2100 relative to pre-industrial levels. For instance, the RCP4.5 scenario equates to 4.5W/m^2 greater than pre-industrial levels in 2100. Recent analysis indicates that radiative forcing increased from 2.16W/m^2 in 1990 to 3.03W/m^2 in 2016[10]. As such, the RCP2.6 scenario is unlikely to be realistic. For this analysis, the RCP4.5 and RCP8.5 scenarios were chosen as they provide a realistic range of climate change projections following the IPCC AR5.

The charts presented below represent the averages of three climate change models (CanESM2, CNRM-CM5, and HadGEM2) calculated by the ClimateBC tool. Taking the average of multiple climate change projections, or the ensemble mean, helps to account for model uncertainty, in turn lending confidence to model projections. Model uncertainty, calculated as the standard deviation of model projections, is represented by the error bars in the following charts. The projections included here focus on the winter season (Dec. – Feb.) as this season is critical to the viability of winter recreation activities at MSR. Values for 2010 were derived from recorded weather data for the 2001 - 2010 period.

Of note, the projections are made at 30-year intervals extending to 2085. However, decisions regarding the development and management of MSR take place on much shorter timescales, reflecting dynamic changes in the ski industry and skier marketplace. Thus, the SRDP must address current realities while also providing the flexibility to adapt to climate trends realized over decades.

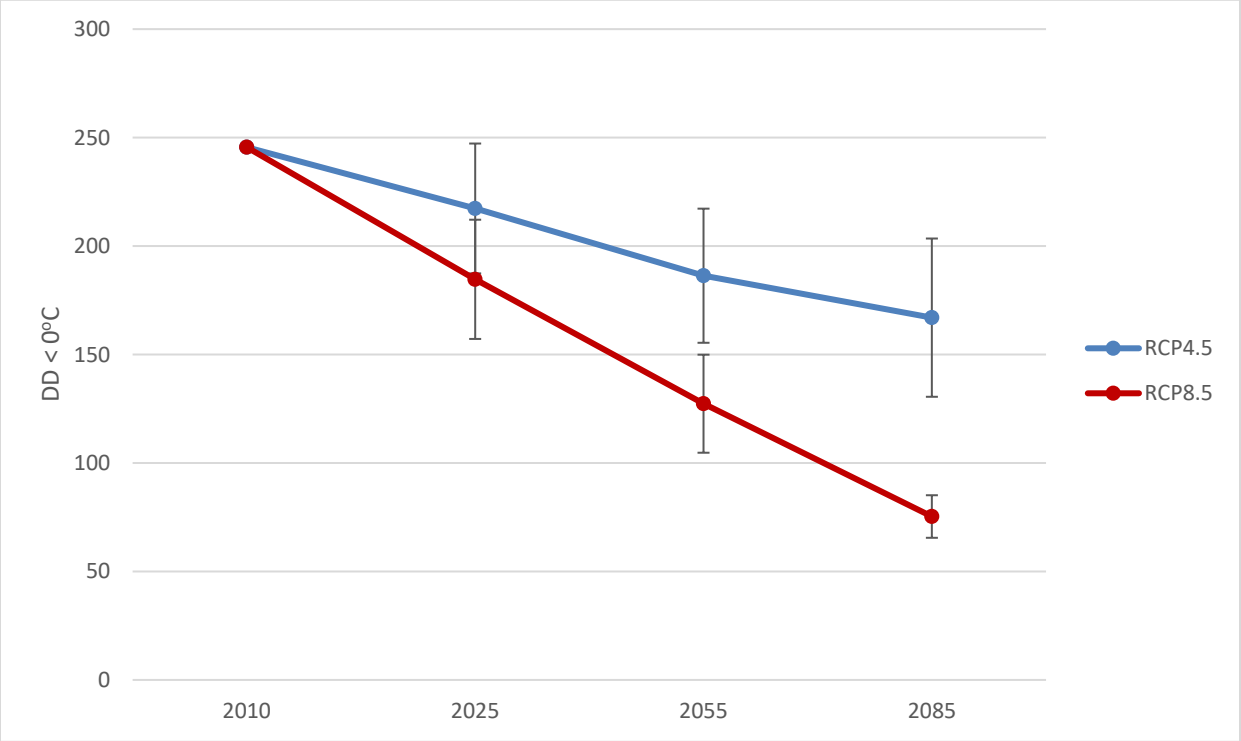
[9] http://www.climatewna.com/ClimateBC_Map.aspx
[10] Butler, J. H. & Montzka, S. A. (2017). THE NOAA ANNUAL GREENHOUSE GAS INDEX (AGGI). Retrieved from: https://www.esrl.noaa.gov/gmd/aggi/aggi.html

Chart 4-3. Projected Average Winter Temperature at Mt Seymour Resort



The average winter temperature at MSR is projected to increase considerably in the coming decades, regardless of the scenario (Chart 4-3). Under the RCP4.5 scenario, the average winter temperature is projected to rise by approximately 2°C by 2085, while the RCP8.5 scenario indicates that the average winter temperature will rise by approximately 5°C by 2085. Uncertainty surrounding both projections is notable, with the RCP4.5 and RCP8.5 showing a range of 2°C and 0.8°C in 2085, respectively. Of note, while average minimum winter temperature at Mt Seymour Resorts will also increase, it is well below the average winer temperature illustrated in Chart 4-3 and will continue to support natural snowfall, albeit in reduced amounts as time progresses.

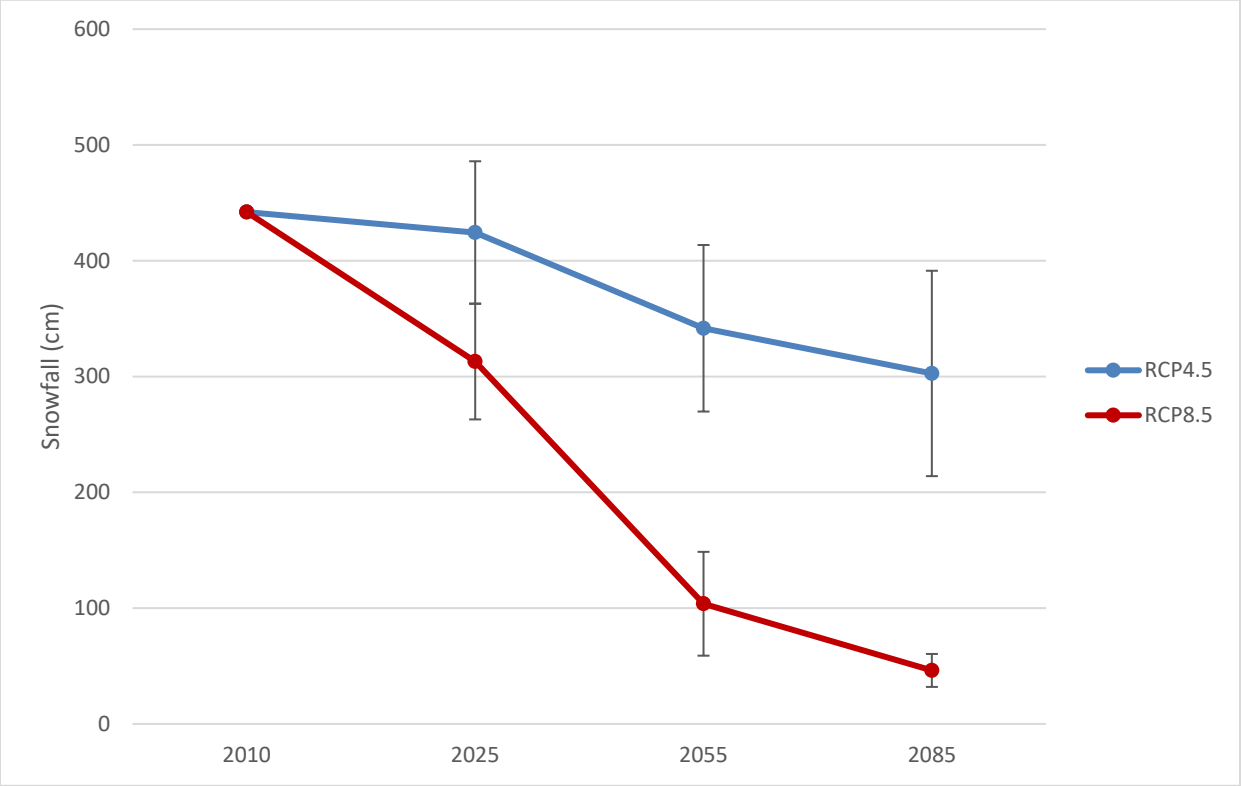
Chart 4-4. Projected Winter Degree Days < 0°C



Degree days are a measure of how long (in days) and how much (in degrees) the temperature sits above or below a temperature threshold. For example, looking at degree days less than 0°C, if the temperature over five days was -5°C, 3°C, -1°C, 4°C, and -2°C, Degree Days < 0°C would equal 8 (-5°C + -1°C + -2°C).

As can be seen in Chart 4-4, the number of degree days below 0°C is projected to decline significantly at MSR in the coming decades. The RCP4.5 scenario projects that degree days below 0°C will decrease by approximately 80 by 2085, while degree days below 0°C are projected to drop by approximately 175 by 2085 in the RCP8.5 scenario. Uncertainty surrounding the RCP4.5 scenario is considerable and increases at later dates. Conversely, uncertainty around the RCP8.5 is greatest at earlier dates, and smallest in 2085.

Chart 4-5. Projected Mean Winter Snowfall



Under the RCP4.5 scenario, average winter snowfall at MSR is expected to initially remain somewhat stable before declining by approximately 150 cm (Chart 4-5) in 2085. In contrast, projections for the RCP8.5 scenario have snowfall steadily declining by over 400 cm by 2085, with a notable decline from 2025 to 2055. The RCP4.5 projection is characterized by significant uncertainty, which increases over time, whereas uncertainty surrounding the RCP8.5 scenario declines over time.

Examining these three metrics together, if these projections are realized, MSR will undoubtedly face the challenge of ensuring adequate snow for winter activities, such as skiing, snowshoeing, and tubing. This underscores the need for adaptation measures, such as snowmaking, to address uncertainty in annual snowfall and to develop recreational opportunities in all seasons (detailed in Sec. 4.4 and Sec. 4.2.10, respectively). These efforts will help ensure that MSR remains a viable starting gate to wilderness recreation for the Metro Vancouver region for decades.

4.11.2 Skier Marketplace in Metro Vancouver

The ski resorts in British Columbia offer unsurpassed, world-class mountain experiences. Unsurprisingly, the province has developed a strong and stable skier marketplace. It is estimated that there are 670,000 skiers in BC, or 14.5% of the population, well above the national participation rate of 11.5%[11]. This group has remained active over the past decade, with visits to ski resorts in BC remaining stable, averaging just under 6 million annually[3].

[11] Canadian Ski Council (2016). *Stats & Facts: Ski and Snowboard Industry 2014-15*. Retrieved from: *https://www.skicanada.org/wp-content/uploads/2016/.../2014-15-Facts-and-Stats.pdf*

The trends in visitation at MSR mirror those of the province. Visits to MSR have remained stable in the past years, with the resort receiving an average of 290,000 visits annually over the past 5 years.

One reason for MSR's continued success is its proximity to the Metro Vancouver region and its active skiing community. Metro Vancouver is home to approximately 274,000 skiers who spend an average of 2.1 million days skiing each year[12]. This represents a third of all days skied in British Columbia[3]. The region has also experienced a rapid uptake in recreational participation more broadly. Over the past decade, participation in recreational activities has doubled, and residents are looking to more challenging activities, such as skiing, snowboarding, and cycling[13].

Mt Seymour Resorts has also maintained a unique position within the local ski area industry. It has developed features and facilities to appeal to young families, youth, and adults and cultivated a fun, family-oriented, beginner-friendly atmosphere. As such, the mountain draws skiers learning to carve their first turns, those introducing their children to the sport, and those pushing their skills past the beginner slopes. In contrast, other ski areas in the region have positioned themselves by offering "big mountain" experiences more commonly found in BC's interior or as winter recreation hubs with diverse recreational offerings with less focus on alpine skiing and tubing. Mt Seymour Resorts sets itself apart and continues to draw guests from all over the Metro Vancouver region.

The core group of skiers visiting MSR falls into three broad categories: Children (age 5-12) and Youth (age 12-18), Young Adults (age 18-28), and Young Families (children under 12). Together, these groups comprise approximately 71% of the skier marketplace in British Columbia (18% - Children and Youth, 36% - Young Adults, and 17% - Families)[3].

The composition of these groups has changed in recent years, with more new Canadians and first-generation Canadians taking part in alpine skiing and tubing. A growing number of children learning to ski are first-generation Canadians whose parents did not have the opportunity to ski in their youth. MSR has found that a child's participation can be a family affair, with parents and grandparents often visiting to watch the child learn to ski. This allows MSR to engage those unfamiliar with the mountain experience and cultivate a love for winter play. Further, by engaging prospective skiers at an early age, it allows them to become life-long participants. It is common to hear of skiers returning to MSR to teach their children how to ski on the same slopes where they took their first turns.

Looking to the future, a large and active skiing community and a growing interest in recreation activities in the Metro Vancouver region will support the viability of MSR. With a well-defined ski product, distinct from other resorts in the region, and a strong reputation, MSR is well-positioned to adapt to changing trends in the ski industry and grow into a vibrant all-season resort.

[12] Assumes 7.5 days skied per skier each year (Canadian Ski Council, 2017).
[13] Metro Vancouver & Fraser Valley Regional District (2011). Regional Outdoor Recreation Opportunities Study. Retrieved from: http://www.metrovancouver.org/services/parks/learn/plans-and-reports/research/Pages/default.aspx

4.12 PHASED DEVELOPMENT

The gradual development of MSR over the 60-year term of its Park Use Permit is envisioned to occur in four or more phases (Figure 4-11a to 4-11e). Each phase is a self-contained product, effectively able to function as a finished resort offering, with the mountain and base area developments complementing each other. The phases will be triggered based on demand from the skier marketplace.

Phase One:

- Twinning of the Goldie Magic Carpet to improve uphill capacity.
- Development of the Mushroom Carpet adjacent to and integrated with the Goldie ski pod.
- Development of the lift-serviced mountain bike trail network in the Lodge, Ridge, and Goldie pods.
- Development of Summer Activity Zone, including Aerial Adventure Park and Ziplines.
- Development of Disc Golf in the Goldie pod.
- Removal, or Replacement and Upgrade of the Brockton Chair.
- Development of Summit Chair, access lifts, and associated ski terrain.
- Development of the initial phase of a comprehensive snowmaking system.
- Development of the proposed Cabins and Glamping areas.
- Expanded and improved space in the base area (e.g., Food and Beverage, Rentals).
- Realigned, expanded, and improved parking area.

Phase Two:

- Relocation of the Tube Park and Tube Park Tow, and development of the Alpine Slide.
- Development of the Ridge Chair and associated ski terrain.
- Development of Mystery Peak Lodge and the Alpine Activity Zone, including hiking trails.
- Expansion of the comprehensive snowmaking system.
- Expanded and improved space in the base area (e.g., Food and Beverage, Rentals).
- Realigned, expanded, and improved parking area.

Phase Three:

- Development of the Percy Chair and associated ski terrain.
- Development of the Adventure Zone, including the De Pencier Skywalk.
- Expansion of the comprehensive snowmaking system.
- Expanded and improved space in the base area.

Phase Four:

- De Pencier Chair, related Exit Chair, and Haul-Back T-Bar with associated ski terrain.
- Development of the Peak Hut and De Pencier Hut.
- Development of the Mt Seymour Gondola.
- Expanded and improved space in the base area.

Phase 1a	Phase 1b	Phase 2	Phase 3	Phase 4
Goldie Carpet (Twin)	Brockton Chair (Remove / Replace / Upgrade)	Ridge Chair (Quad)	Percy Chair (Quad)	De Pencier Chair (Quad)
Summer Trails Development (Hiking, Learn-to-Ride MTB)	Summit Chair + Mid Station (Quad)	Alpine Summer Trail Development	Skywalk	Haul-Back TBar
Aerial Adv. Park / Ziplines	Summit Access Lifts	Tube Park and Tube Park Tow		Exit Chair (Double)
Mushroom Carpet	Cabins and Glamping			Gondola
Disc Golf				

Phase 1a

Brockton Chair

Mystery Peak Express

Ole's Pass

Goldie Parallel Option

Mushroom Carpet

Lodge Chair

Zipline 1

Zipline 2

Zipline 3

Zipline 4

Cabin Connector

Cabin Trail

Trapper John's

Creek Trail

Goldie Shortcut

Goldie Lake Loop

Flower Lake Loop

Explorer Trail

Cougars Pass

Windfall Trail

MT SEYMOUR

Mt. Seymour Resort
Resort Development Plan
2025

Legend

- Proposed Lift
- Existing Lift
- Existing Ski Runs
- Existing Snowshoe Trails
- Proposed Ski Runs
- Proposed Buildings
- Proposed Parking

Proposed Summer Use Areas

- Aerial Adventure Park
- Proposed Ziplines

Proposed Phasing

- Phase 1a

Planning by:

BHA

4-1005 Alpha Lake Road,
Whistler, BC, Canada V8E 0H5
Tel: 604 932 7002
email: bha@brentharley.com
website: www.brentharley.com

Prepared for:

MT SEYMOUR

Mt. Seymour Resort Ltd.
1700 Mt. Seymour Road
North Vancouver, BC, Canada V7G 1L3
Tel: 604 986 2261
email: snow@mtseymour.ca
website: www.mtseymour.com

1:10,000

0 100 200 400 Meters

Mount Seymour Resort Phase 1a

Figure 4-11a

This page has intentionally been left blank.

Phase 1a	Phase 1b	Phase 2	Phase 3	Phase 4
Goldie Carpet (Twin)	Brockton Chair (Remove / Replace / Upgrade)	Ridge Chair (Quad)	Percy Chair (Quad)	De Pencier Chair (Quad)
Summer Trails Development (Hiking, Learn-to-Ride MTB)	Summit Chair + Mid Station (Quad)	Alpine Summer Trail Development	Skywalk	Haul-Back TBar
Aerial Adv. Park / Ziplines	Summit Access Lifts	Tube Park and Tube Park Tow		Exit Chair (Double)
Mushroom Carpet	Cabins and Glamping			Gondola
Disc Golf				

Phase 1b

Brockton Chair

Summit Chair Ext.

Summit Chair

Flower Chair

Access T-Bar

Mystery Peak Lodge

Mystery Peak Express

Ole's Pass

Goldie Parallel Option

Mushroom Carpet

Lodge Chair

Cabin Connector

Cabin Trail

Creek Trail

Trapper John's

Flower Lake Loop

Goldie Lake Loop

Goldie Shortcut

Explorer Trail

Cougars Pass

Windfall Trail

Mt. Seymour Resort
Resort Development Plan
2025

Legend

- Proposed Lift
- Existing Lift
- Lifts to be Upgraded/Replaced
- Existing Ski Runs
- Existing Snowshoe Trails
- Proposed Ski Runs
- Proposed Access Trails
- Proposed Ziplines
- Proposed Buildings
- Proposed Parking

Proposed Mountain Lodges

- Restaurant/Cafe
- Warming Hut

Proposed Glading

- Dense Glading
- Thin Glading

Proposed Phasing

- Phase 1b

Planning by:

BHA

4-1005 Alpha Lake Road,
Whistler, BC, Canada V8E 0H5
Tel: 604 932 7002
email: bha@brentharley.com
website: www.brentharley.com

Prepared for:

Mt. Seymour Resort Ltd.
1700 Mt. Seymour Road
North Vancouver, BC, Canada V7G 1L3
Tel: 604 986 2261
email: snow@mtseymour.ca
website: www.mtseymour.com

1:10,000

0 100 200 400 Meters

Mount Seymour Resort Phase 1b

Figure 4-11b

This page has intentionally been left blank.

Phase 1a	Phase 1b	Phase 2	Phase 3	Phase 4
Goldie Carpet (Twin)	Brockton Chair (Remove / Replace / Upgrade)	Ridge Chair (Quad)	Percy Chair (Quad)	De Pencier Chair (Quad)
Summer Trails Development (Hiking, Learn-to-Ride MTB)	Summit Chair + Mid Station (Quad)	Alpine Summer Trail Development	Skywalk	Haul-Back TBar
Aerial Adv. Park / Ziplines	Summit Access Lifts	Tube Park and Tube Park Tow		Exit Chair (Double)
Mushroom Carpet	Cabins and Glamping			Gondola
Disc Golf				

Phase 2

Brockton Chair
Summit Chair Ext.
Summit Chair
Mystery Peak Express
Flower Chair
Access T-Bar
Ridge Chair
Tube Park
Mushroom Carpet
Lodge Chair
Goldie Parallel Option
Ole's Pass
Cabin Connector
Cabin Trail
Trapper John's
Creek Trail
Goldie Shortcut
Goldie Lake Loop
Flower Lake Loop
Explorer Trail
Cougars Pass
Windfall Trail

Mt Seymour

Mt. Seymour Resort
Resort Development Plan
2025

Legend

- Lifts to be Replaced/Upgraded
- Proposed Lift
- Existing Lift
- Existing Ski Runs
- Existing Snowshoe Trails
- Proposed Ski Runs
- Proposed Access Trails
- Proposed Ziplines
- Proposed Buildings
- Proposed Parking

Proposed Glading

- Dense Glading
- Thin Glading

Proposed Phasing

- Phase 2

Planning by:

BHA

4-1005 Alpha Lake Road,
Whistler, BC, Canada V8E 0H5
Tel: 604 932 7002
email: bha@brentharley.com
website: www.brentharley.com

Prepared for:

Mt. Seymour Resort Ltd.
1700 Mt. Seymour Road
North Vancouver, BC, Canada V7G 1L3
Tel: 604 986 2261
email: snow@mtseymour.ca
website: www.mtseymour.com

1:10,000

0 100 200 400 Meters

Mount Seymour Resort Phase 2

Figure 4-11c

This page has intentionally been left blank.

Phase 1a	Phase 1b	Phase 2	Phase 3	Phase 4
Goldie Carpet (Twin)	Brockton Chair (Remove / Replace / Upgrade)	Ridge Chair (Quad)	Percy Chair (Quad)	De Pencier Chair (Quad)
Summer Trails Development (Hiking, Learn-to-Ride MTB)	Summit Chair + Mid Station (Quad)	Alpine Summer Trail Development	Skywalk	Haul-Back TBar
Aerial Adv. Park / Ziplines	Summit Access Lifts	Tube Park and Tube Park Tow		Exit Chair (Double)
Mushroom Carpet	Cabins and Glamping			Gondola
Disc Golf				

Mt. Seymour Resort
Resort Development Plan
2025

Legend

- Proposed Lift
- Existing Lift
- Existing Ski Runs
- Existing Snowshoe Trails
- Proposed Ski Runs
- Proposed Access Trails
- Proposed Ziplines
- Proposed Buildings
- Proposed Parking

Proposed Mountain Lodges

- Restaurant/Cafe
- Warming Hut

Proposed Glading

- Dense Glading
- Thin Glading

Proposed Phasing

- Phase 3

Planning by:

BHA
4-1005 Alpha Lake Road,
Whistler, BC, Canada V8E 0H5
Tel: 604 932 7002
email: bha@brentharley.com
website: www.brentharley.com

Prepared for:

Mt. Seymour Resort Ltd.
1700 Mt. Seymour Road
North Vancouver, BC, Canada V7G 1L3
Tel: 604 986 2261
email: snow@mtseymour.ca
website: www.mtseymour.com

1:10,000

0 100 200 400 Meters

Mount Seymour Resort Phase 3

Figure 4-11d

This page has intentionally been left blank.

Phase 1a	Phase 1b	Phase 2	Phase 3	Phase 4
Goldie Carpet (Twin)	Brockton Chair (Remove / Replace / Upgrade)	Ridge Chair (Quad)	Percy Chair (Quad)	De Pencier Chair (Quad)
Summer Trails Development (Hiking, Learn-to-Ride MTB)	Summit Chair + Mid Station (Quad)	Alpine Summer Trail Development	Skywalk	Haul-Back TBar
Aerial Adv. Park / Ziplines	Summit Access Lifts	Tube Park and Tube Park Tow		Exit Chair (Double)
Mushroom Carpet	Cabins and Glamping			Gondola
Disc Golf				

Phase 4

Peak Hut
De Pencier Chair
De Pencier Hut
Exit Chair
Haul Back TBar
Brockton Chair
Mystery Peak Lodge
Mystery Peak Express
Ledge Chair
Mushroom Carpet
Bear Bowl Carpet
Goldie Parallel Option
Option B
Option A
Ole's Pass
Cabin Connector
Cabin Trail
Trapper Johns
Creek Trail
Goldie Shortcut
Goldie Lake Loop
Flower Lake Loop
Explorer Trail
Cougars Pass
Windfall Trail

Legend

- Proposed Lift
- Existing Lift
- Existing Ski Runs
- Existing Snowshoe Trails
- Proposed Ski Runs
- Proposed Access
- Proposed Buildings
- Proposed Parking

Proposed Mountain Lodges

- Restaurant/Cafe
- Warming Hut

Potential Gondola Alignment Options

- Option A
- Option B

Proposed Glading

- Dense Glading
- Thin Glading

Proposed Phasing

- Phase 4

Mt. Seymour Resort
Resort Development Plan
2025

Planning by:

BHA
4-1005 Alpha Lake Road,
Whistler, BC, Canada V8E 0H5
Tel: 604 932 7002
email: bha@brentharley.com
website: www.brentharley.com

Prepared for:

Mt. Seymour Resort Ltd.
1700 Mt. Seymour Road
North Vancouver, BC, Canada V7G 1L3
Tel: 604 986 2261
email: snow@mtseymour.ca
website: www.mtseymour.com

1:10,000

0 100 200 400 Meters

Mount Seymour Resort Phase 4

Figure 4-11e

This page has intentionally been left blank.

5 APPENDIX

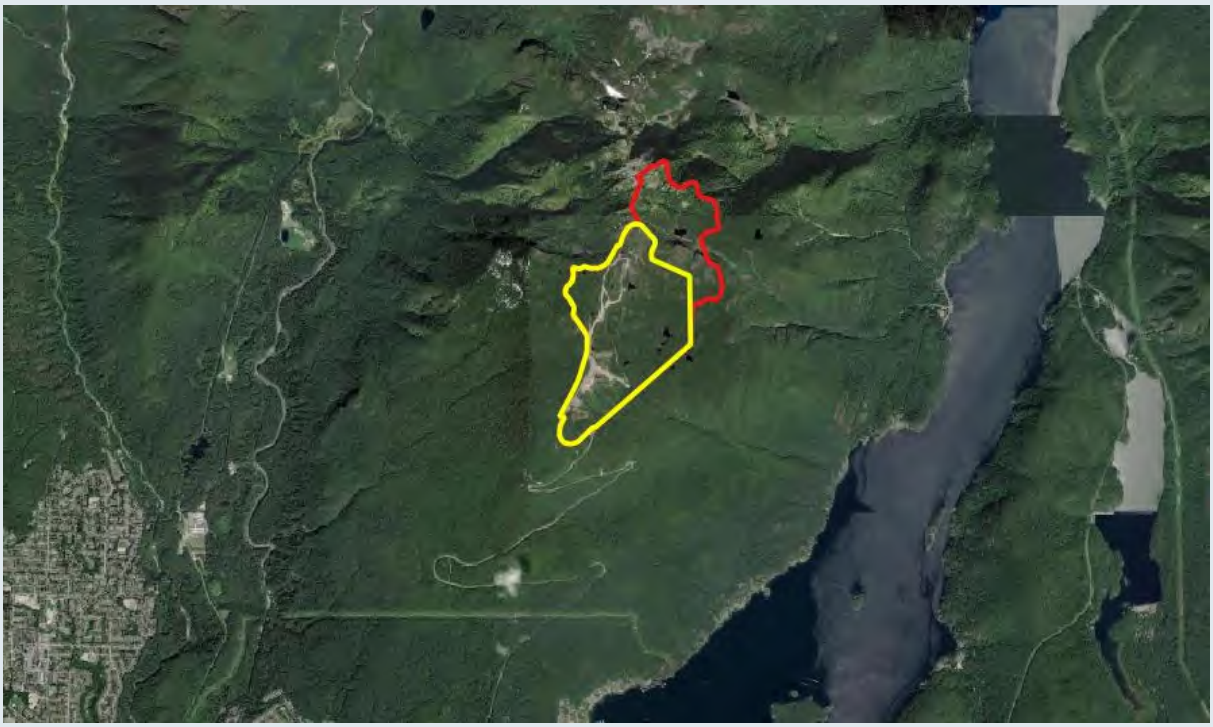
5.1 ROE ENVIRONMENTAL PRELIMINARY ENVIRONMENTAL OVERVIEW ASSESSMENT

ROE Environmental Consulting

MOUNT SEYMOUR RESORT

Proposed Controlled Recreation Area Expansion

(Desktop) Environmental Overview Assessment



DATE: MAY 6, 2026
VERSION: FINAL

Prepared for:
Mt. Seymour Resort Ltd.
1700 Mt Seymour Road
North Vancouver, BC
V7G 1L3

Prepared by:
Roe Environmental Inc.
106 – 185 Forester Street
North Vancouver, BC
V7H 0A6
(604) 987-5588

CONTENTS

FIGURES

1 INTRODUCTION

Mount Seymour Resort Ltd. (MSR and the "Proponent") retained Roe Environmental Inc. (Roe) to conduct a preliminary Environmental Overview Assessment (EOA) of the proposed expansion of the Mount Seymour Resort Controlled Recreation Area (CRA) in North Vancouver, BC. The CRA is situated within the larger Mount Seymour Provincial Park (the "Park") and is under BC Parks jurisdiction. When a new development is proposed within a provincial park, the Proponent must engage with BC Parks to assess potential impacts on ecological, cultural, and recreational values prior to allowing the development to proceed. The scope of this EOA does not include socio-economic, cultural, or recreational use assessment. Additional Valuable Components (VCs) identifiable through assessment under these categories are undoubtedly present within the CRA but are not part of Roe's professional scope and are not further addressed in this report.

This EOA is intended to identify Valuable Ecosystem Components (VECs) for consideration as part of the CRA extension planning phase under the BC Parks Impact Assessment (BCPIA) process (see Section 5.1 below). VEC identification is a core component of environmental assessment and represents the basis for proposed development impact analysis, mitigation, and monitoring.

Mount Seymour Provincial Park is 3,508 ha. in size, with the current Mount Seymour CRA covering approximately 235 ha. at the southern extent of the Park. The proposed expansion (see Figure 1) would add approximately 100 ha. to the current Mount Seymour CRA, representing a 44% increase in area, for a new total area of approximately 335 ha. The expanded CRA would encompass the De Pencier Lake basin and First Pump Peak areas, north of the current boundary.

MSR has previously engaged with BC Parks on development projects; however, no EOA had been completed at that scale to date. The objectives of this EOA are to provide a high-level description of terrestrial and aquatic habitat, wildlife, vegetation, and species at risk present or potentially present within and adjacent to the expanded Mount Seymour CRA, and to identify VECs recommended for detailed study for any future BCPIA process.

It is noted that this report is intended for planning purposes only. It does not constitute an impact assessment of any proposed recreational infrastructure, nor does it represent a final determination of environmental significance.

Figure 1: Location map showing the existing Mount Seymour CRA boundary (yellow polygon) and proposed CRA expansion (red polygon). (Imagery Source: ESRI)

2 METHODOLOGY

This EOA is based on a desktop review of available information from a variety of sources. A review of gazetted (known) occurrences of species and ecosystems of management concern potentially present in the vicinity of the expanded CRA was conducted within an arbitrary 1 km radius (the "Study Area") using the BC Conservation Data Centre (BC CDC) iMap[1] online GIS tool (See Figure 6). It was supplemented with an area-based search using the BC Ministry of Environment's *BC Species and Ecosystems Explorer*[2] (BC SEE) database for potentially present species and plant communities (see Table 1). Citizen science data available from the eBird[3], and iNaturalist[4] databases was also consulted as additional sources of information.

Although a detailed survey of wildlife and wildlife habitat, plant, and plant communities was beyond the scope of this preliminary EOA, Roe has a working knowledge of the Mount Seymour CRA acquired through field assessments and environmental management plans for various operations and maintenance projects.

Ecological information and species habitat range descriptions summarized in Table 1 were obtained from

[1] https://maps.gov.bc.ca/ess/hm/imap4m/

[2] https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/conservation-data-centre/explore-cdc-data/species-and-ecosystems-explorer

[3] https://ebird.org/canada/home

[4] https://inaturalist.ca/

e-Flora BC[5], e-Fauna BC[6], BC Breeding Bird Atlas[7], and a variety of other relevant field guides and publications. Information regarding the biophysical conditions of the MPR areas, biogeoclimatic classification, and typical plant species were obtained from the iMap tool and the BC Ministry of Forests, Lands and Natural Resource Operations and Rural Development's Ecosystem Classification information for the relevant biogeoclimatic subzones.

The watercourses, lakes, and wetlands depicted in Figure 5 were obtained from the provincial Freshwater Atlas[8] GIS layer. While this is the most comprehensive provincial dataset available for mapping watercourses in BC, its 1:20,000 source scale means that smaller watercourses, intermittent streams, seeps, wetlands, and ponds, particularly in complex, steeply sloped terrain like that found within the Mount Seymour CRA, are often absent from or inaccurately represented in the dataset. As such, a cursory review of available aerial imagery yielded the additions of several obvious small waterbodies (see Figure 5: Location map showing the main watercourses within the Study Area (Data source: BC Freshwater Atlas: Imagery source: ESRI). Nevertheless, a multitude of small unmapped water features is expected to be present within the expanded CRA, which will require thorough field mapping to identify them all.

3 EXISTING ENVIRONMENTAL CONDITIONS

3.1 Land Acknowledgment

The Mount Seymour CRA is located on the unceded territory of the Coast Salish peoples, including the territories of the xʷməθkwəy̓əm (Musqueam), Skwxwú7mesh (Squamish), and Səl̓ílwətaʔ/Selilwitulh (Tsleil-Waututh) Nations. Roe is not qualified to provide meaningful information on the rich history, diverse teachings, traditions, and practices within these territories and as such, this report will not provide further information regarding First Nations interests.

3.2 General Conditions and Existing Disturbance Areas

Mount Seymour Provincial Park was established in 1936 by the BC government, as a growing community of over 300 log cabins was built in the 1930s and 1940s. The first ski lodge was established in 1938, marking the beginning of structured downhill skiing on the mountain. In 1984, the provincial government transferred control of the ski area to Mount Seymour Resorts Ltd., owned and operated by the Wood Family ever since.

Most of the current CRA presents some level of development including hiking trails, gladed and open ski runs, parking areas, water reservoirs, buildings, and other recreational amenities (see resort map in Appendix A and Figure 2 below). The disturbance areas associated with the ski resort are generally located within the western half of the CRA while the eastern extent is relatively undisturbed with only hiking/snowshoe trails present. Mature and old forests remain common within the CRA and represent well over half of the CRA.

[5] https://ibis.geog.ubc.ca/biodiversity/eflora/

[6] https://ibis.geog.ubc.ca/biodiversity/efauna/

[7] https://www.birdatlas.bc.ca/

[8] https://www2.gov.bc.ca/gov/content/data/geographic-data-services/topographic-data/freshwater

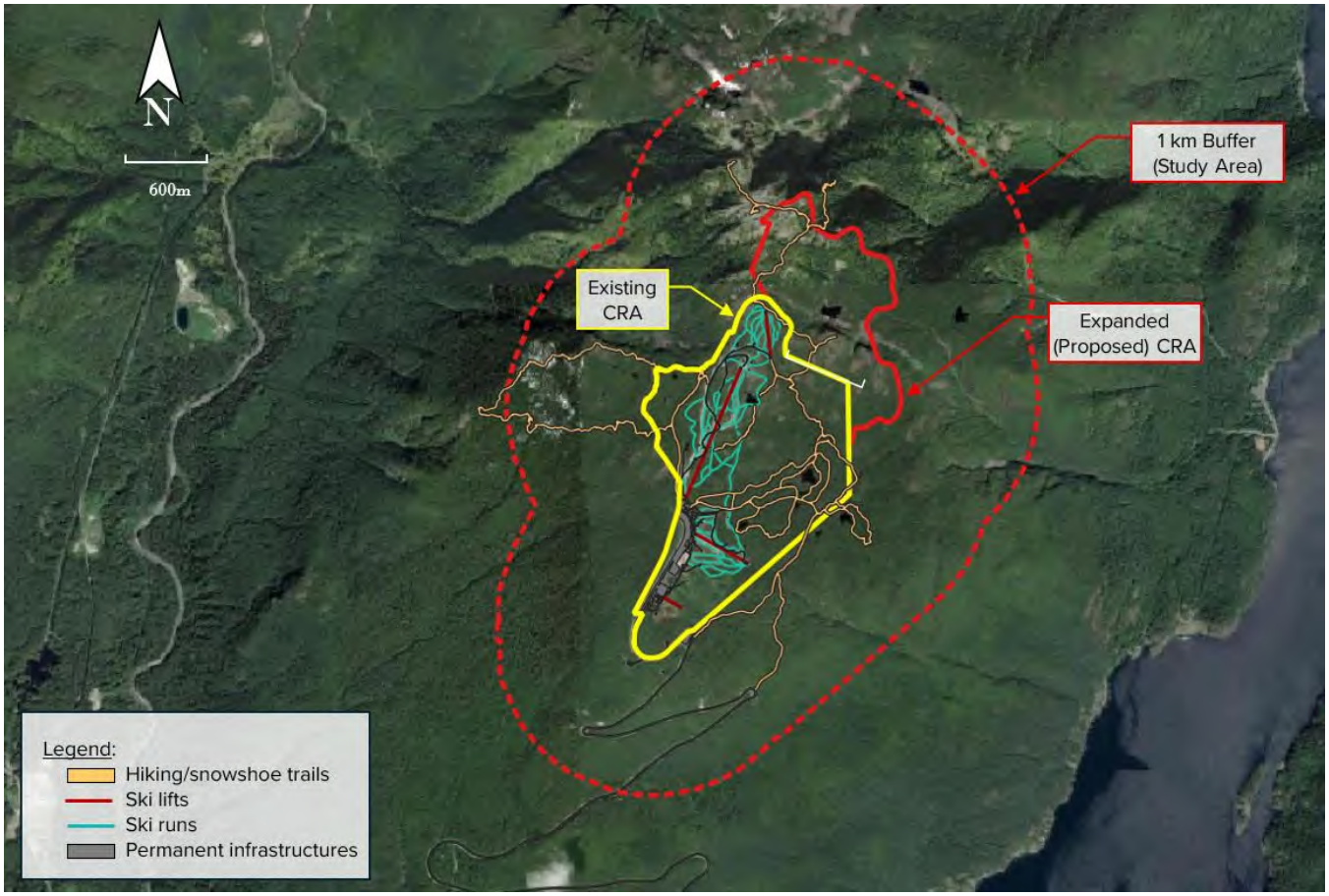


Figure 2: View of existing recreational infrastructure within the CRA. (Imagery Source: ESRI)

3.3 Biophysical Setting

Situated between approximately 920 m and 1250 m above sea level (masl), the proposed Mount Seymour CRA spans two different biogeoclimatic subzones (see Figure 3 below). Most of the downhill ski area from the Goldie Magic Carpet to the Brockton Chair is situated within the moist maritime Mountain Hemlock biogeoclimatic Zone (MHmm1). Lower areas including the Goldie Lake snowshoe/hiking trails, the Three Peaks Lodge, and Tube Park areas lie within the Coastal Western Hemlock/very wet maritime montane biogeoclimatic zone CWHvm2.

The CWHvm2 zone occurs at elevations between 650 to 1,000 m and has a climate characterized by short summers and cool winters with substantial snowfall (Green and Klinka, 1994). Undisturbed forested areas are dominated by Western Hemlock *(Tsuga heterophylla),* amabilis fir *(Abies amabilis),* and to a lesser extent western red cedar *(Thuja plicata),* yellow cedar *(Callitropsis nootkatensis)* and mountain hemlock *(Tsuga mertensiana).* The latter two species become more common with increasing elevation and wetter sites.

MHmm1 occurs at elevations between 800-1350 m and can be described as having long, wet, cold winters and short, cool, moist summers. Frozen soils are rare due to the insulating snowpack, growing season frosts are common, and total snowfall is high, which results in substantial snowpacks that can persist into July (Green and Klinka, 1994)[9]. Mountain hemlock and yellow cedar are dominant within the MHmm1 zone

[9] Green, R.N., Klinka, K. 1994. A field guide for site identification and interpretation for the Vancouver Forest Region. Land Management Handbook No. 28. Ministry of Forests, Research Branch, Victoria, B.C.

as western hemlock and western redcedar reach their altitudinal limits.

Dominant understory vegetation of the MHmm1 and CWHvm2 zones typically consists of Alaskan blueberry (*Vaccinium alaskaense*), oval-leafed blueberry (*V. ovalifolium*) five-leaved bramble (*Rubus pedatus*), lanky moss *(Rhytidiadelphus loreus)*, stair-step moss (*Hylocomium splendens*), and pipecleaner moss (*Rhytidiopsis robusta)* (Green and Klinka, 1994)[11].

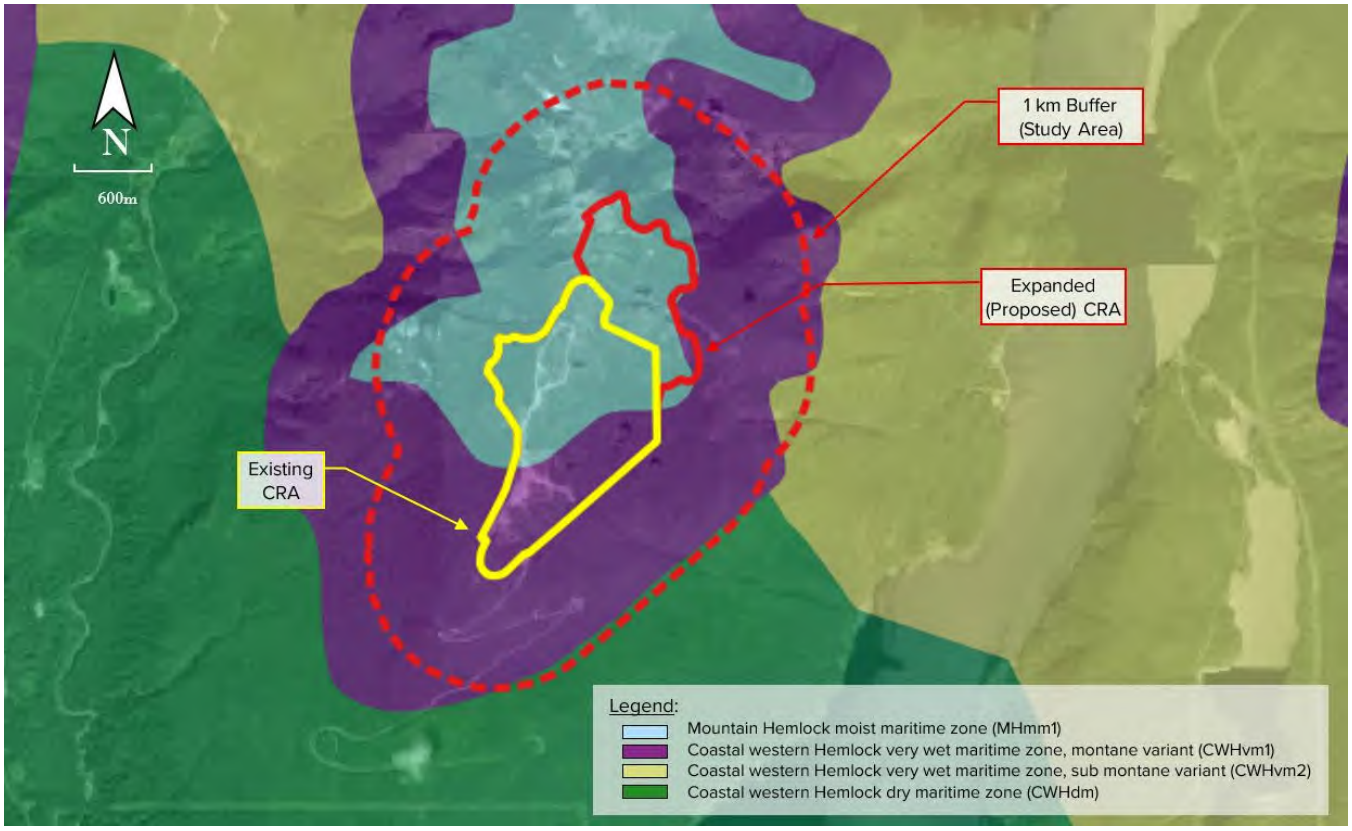


Figure 3: Biogeoclimatic zones classification in the vicinity of the CRA. (Imagery Source: ESRI; Data source: Province of BC).

3.4 Metro Vancouver Sensitive Ecosystem Mapping

A review of Metro Vancouver's Sensitive Ecosystem Inventory maps indicates that the majority of the CRA is located within old coniferous forests more than 250 years old, with alpine parkland forests and shrublands present at higher elevations. Some patches of very old forests more than 400 years old exist within the Suicide Gully area and steep slopes of the Seymour River Watershed west of the CRA. Riparian vegetation is identified within a 30 m distance from all mapped watercourses. Mature (80-250 years old) forests are more prevalent at lower elevations.

Figure 4 below shows the dominant vegetation type and stand age within the study area according to Metro Vancouver's Sensitive Ecosystem Inventory maps.

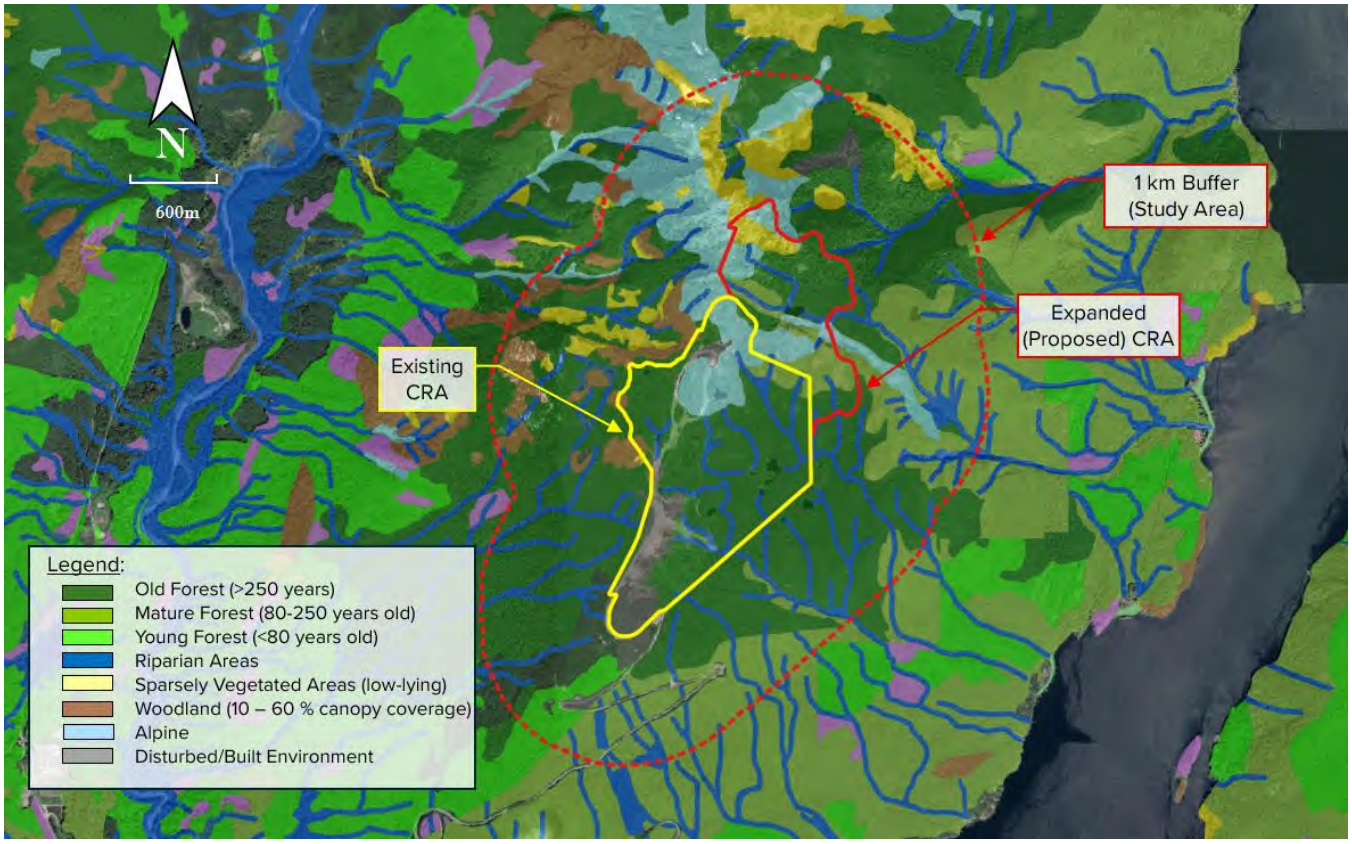


Figure 4: Map showing the type and age of the dominant vegetation within a 1 km buffer around the CRA. (Data Source: Metro Vancouver SEI; Imagery source: ESRI)

3.5 Wildlife and Terrestrial Habitat Conditions

Although wildlife habitat within the CRA has been partially impacted by over 100 years of development and recreational activities, most of the CRA is still comprised of old growth forests. The tree density becomes sparser above 1200 m, in the subalpine and alpine areas. Due to the steep slopes and dense forested areas, the trail network does not result in significant habitat fragmentation; however, human presence associated with recreational activities occurs year-round.

Some steep cliff bands are present along the northern extent of the CRA. These include Suicide Bluffs, the south facing slopes of First Pump Peak and the bluffs along the south side of the De Pencier Lake drainage basin. Although the cliffs are potentially suitable for mountain goats (*Oreamos americanus*), this species is not currently known to inhabit the CRA and adjacent areas. These cliffs could also provide suitable nesting ledges for peregrine falcon (*Falco peregrinus*) but known nesting sites in the region are mainly located at lower elevations. The talus slopes associated with these cliff bands can also potentially be used by bat species for day roosting during the summer months or during the overwintering period.

Mount Seymour Provincial Park is home to a variety of small to large wildlife including black bear (*Ursus americanus*), black-tailed deer (*Odocoileus hemionus*), American pika (*Ochotona princeps*), Douglas squirrel (*Tamiasciurus douglasii*), yellow-pine chipmunk (*Neotamia amoenus*), snowshoe hare (*Lepus americanus*), coyote (*Canis latrans*), and cougar (*Puma concolor*).

A variety of birds also inhabit the forested areas within and adjacent to the CRA. Common ravens (*Corvus corax*), Canada jay (*Perisoreus canadensis*), dark-eyed junco (*Junco hyemalis*), American robin (*Turdus migratorius*), and pine siskin (*Spinus pinus*) are some of the most commonly observed species year-round, while summer migrants such as the Townsend's warbler (*Setophaga townsendi*) and barn swallows (*Hirundo rustica*) can be observed during the nesting window.

The presence of bats is mostly unknown within the Study area. However, the various habitat types present, from mature trees with cavities, talus slopes, and foraging areas over waterbodies and meadows, represent some highly suitable habitat potential.

Although their species diversity is relatively low in comparison to other areas of the province like the Cascade range, 22 butterfly species are recorded within the Study Area, including but not limited to mariposa copper (*Tharsalea mariposa*), Clodius parnassian (*Parnassius clodius*), margined white (*Pieris marginalis*), and Hoary comma (*Polygonia gracilis*).

3.6 Aquatic Habitat Conditions

A multitude of small watercourses are present within the Study Area (see Figure 5). Some of the major ones include:

- Francis Creek and Allan Creek, flowing southward and feeding into Indian Arm north of Deep Cove.
- Scott Goldie Creek, Percy Creek, Shone Creek, and Coldwell Creek draining the eastern extent of the Study Area and discharging into Indian Arm.
- Boulder Creek, Semlin Creek, Suicide Creek and Intake Creek draining the western extent of the Study Area and discharging into the Seymour River.

Goldie Lake, Mystery Lake, Percy Lake, and De Pencier Lake are the most notable waterbodies in the area. Two man-made reservoirs are also present on Scott Goldie Creek: Loch Lomond at the base of the Mystery Quad Chair and the resort area water supply further upstream.

A historical rainbow trout (*Oncorhynchus mykiss*) occurrence in Goldie Lake dated from 1955 is shown in the provincial databases, but the presence of fish has not been confirmed ever since and is not expected within the CRA. Coho salmon (O. *kisutch*) and other salmon species may spawn in the lower reaches of some of the watercourses draining the CRA, but they are unlikely to be found far from the ocean or the Seymour River due to the very steep slopes. The condition of the confluence of each watercourse and habitat suitability for salmon or trout spawning has not been assessed to Roe's knowledge.

Several amphibian species are known to be present within the Study Area. Northwestern salamander (*Ambystoma gracile*) eggs are commonly observed in Goldie Lake and adjacent wetlands. Pacific treefrogs (*Hyla regilla*) are also known to be present near Goldie Lake, Loch Lomond and other wetlands in their vicinity. However, there are no records of their presence at higher elevations within the Study Area. Common terrestrial amphibians such as ensatina (*Ensatina eschscholtzii*), long-toed salamander (*Ambystoma macrodactylum*) and western red-backed salamander (*Plethodon vehiculum*) are also present, although they are typically more difficult to observe. Rough-skinned newts (*Taricha granulosa*) are known to occur in the lower Seymour River watershed but are not expected to be found at higher elevations within the Study Area.

Figure 5 below displays the various lakes, pond and wetlands identified on the BC Freshwater Atlas supplemented with a preliminary review of available aerial imagery.

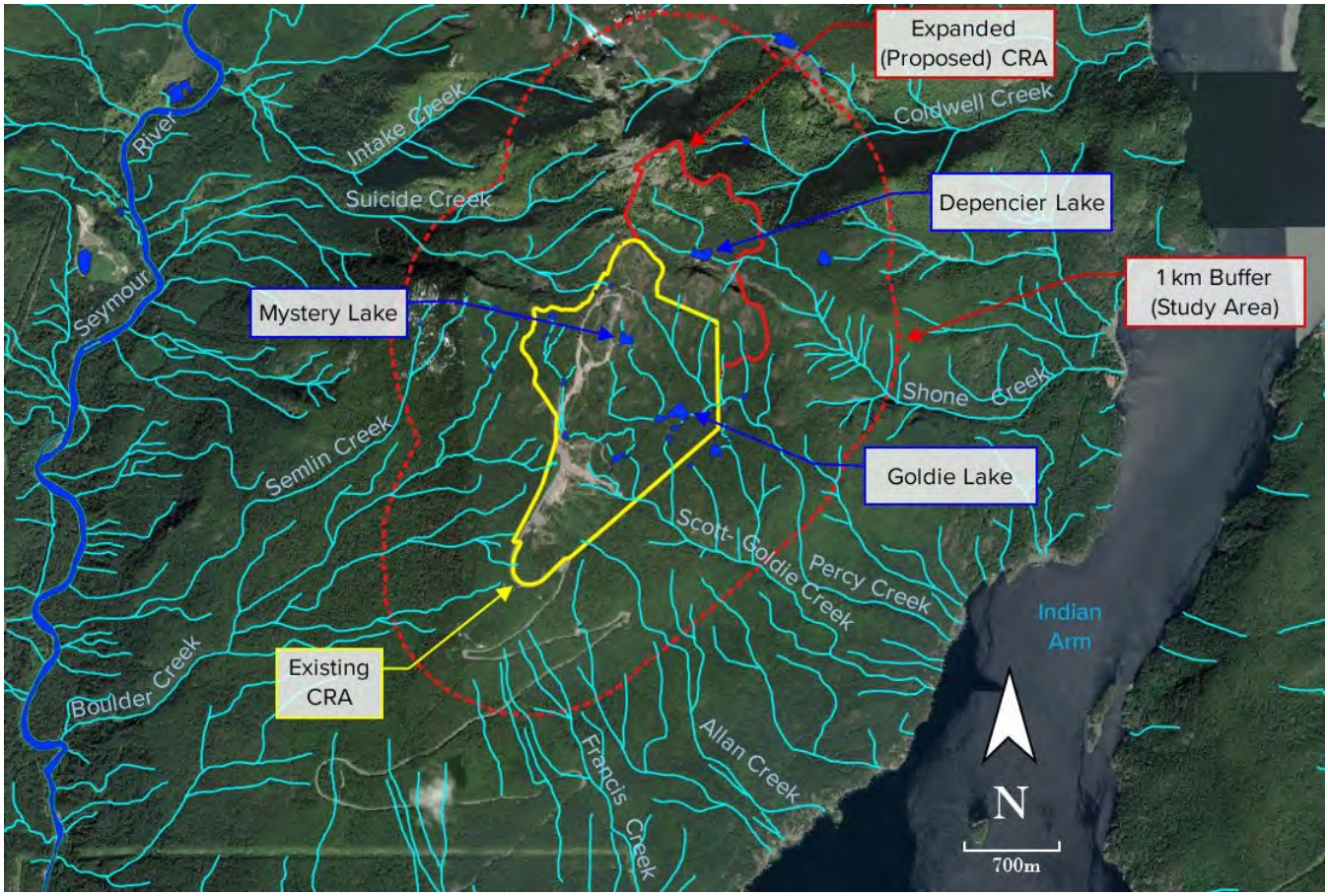


Figure 5: Location map showing the main watercourses within the Study Area (Data source: BC Freshwater Atlas: Imagery source: ESRI).

3.7 Invasive Species

Invasive species within the Study Area mainly consist of non-native and invasive weeds. These plants are more commonly encountered within existing areas of disturbance such as roads, ski runs, and trails. Based on Roe's previous knowledge of the area supplemented with a query of iNaturalist, species such as reed canarygrass (*Phalaris arundinacea*) creeping buttercup (*Ranunculus repens*), hairy cat's-ear (*Hypochaeris radicata)*, wall lettuce (*Lactuca muralis*), common plantain (*Plantago major*), and dandelion (*Taraxacum officinale*) are known to be present within the CRA. Several other species are likely present. No 'noxious weeds' as described in Schedule A of the BC Weed Control Regulation are known to be present within the CRA or broader Study Area.

3.8 Species and Ecosystems at Risk

3.8.1 Gazetted (known) Occurrences

A desktop review for valued ecosystem components (species and habitat) present within a 1-km radius from the CRA was conducted using the BCCDC[10] iMap tool for known occurrences of species and ecosystems at risk and mapped critical habitat, supplemented with an area-based search using the iNaturalist[11] citizen science database. Species are considered of special concern when listed as Endangered (E), Threatened (T), or Special Concern (SC) under Schedule 1 of the federal *Species at Risk*

[10] British Columbia Conservation Data Centre: https://maps.gov.bc.ca/ess/hm/cdc/

[11] iNaturalist: https://www.inaturalist.org/observations

Act (SARA), or as red- or blue-listed under the provincial red and blue lists maintained by the BC CDC. Species at risk occurrences and critical habitat polygons are shown in Figure 6 and further description of critical habitat, species ecology, and potential presence ratings are summarized in Table 1 below.

The BC CDC query identified a historical occurrence of **Pacific water shrew** (*Sorex bendirii*) south of the CRA along Mt Seymour Road, dated from 1957. Although the presence of this species has not been confirmed at this location since, some specimens were more recently identified near the Seymour Dam. This species is associated with riparian areas with abundant vegetation and large woody debris for cover, typically below 850 m of elevation in BC. The presence of this species within the CRA is, therefore, deemed unlikely.

Several critical habitat[12] polygons for **marbled murrelet** (*Brachyramphus marmoratus*) and northern **spotted owl** (*Strix occidentalis caurina*) are present around the CRA perimeter. These critical habitat polygons are based on federal critical habitat designations established under SARA and described in the applicable federal Recovery Strategies. Due to the similar nesting habitat requirements (i.e., old growth forests), these two polygons overlap in some areas, including along the western slopes of Indian Arm.

Marbled murrelet is provincially blue listed (special concern) and listed as Threatened under Schedule 1 of SARA. This bird species spends most of its life cycle in marine habitat, typically within 500 m from shore but up to 2 km in protected inlets and resides in terrestrial (land) habitat only during the breeding season (Environment Canada, 2023[13]). Marbled murrelets typically nest within 30 km of the ocean, but nests have been located up to 50 km or more inland. Nesting occurs in old growth forests, on moss-covered limbs of large coniferous trees (> 40 m and > 40 cm diameter at breast height), high in the canopy (> 15 m) and generally below 900 m of elevation. Critical habitat polygons were identified as suitable nesting habitat based on modelling and land classification to support the spatial management of these habitats on provincial Crown land in BC. Nevertheless, they may not have been assessed in the field to confirm that they meet the biophysical attributes of marbled murrelet critical habitat.

Spotted Owl is a provincially red-listed species and is listed as Endangered under Schedule 1 of *SARA*. Critical Habitat for the species, as identified in the Amended Recovery Strategy for the Spotted Owl caurina subspecies in Canada (Environment and Climate Change Canada, 2023[14]), either already possesses or will develop (within a 50-year period), the biophysical features required by the owls to successfully nest, roost, forage and move safely. Suitable habitats for spotted owls are typically associated with intact, mature to old-growth forests, with high percentage of canopy closure offering good protective cover from both inclement weather and predators.

A masked secure polygon also overlaps with the Study Area. The details of the masked occurrence(s) were requested from the BC CDC[15], who confirmed that these species or habitats in question were present outside of the Study Area. Note that masked secure polygons are intentionally not centered on the actual

[12] Critical habitat for a species at risk is the habitat that is necessary for the survival or recovery of a listed wildlife species as identified as the species' critical habitat in a recovery strategy or action plan for the species.

[13] Environment and Climate Change Canada. 2023. Recovery Strategy for the Marbled Murrelet (*Brachyramphus marmoratus*) in Canada [Amended]. Species at Risk Act Recovery Strategy Series. Environment and Climate Change Canada, Ottawa. https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry/recovery-strategies/marbled-murrelet-amended-final-2023.html

[14] Environment and Climate Change Canada. 2025. Amended Recovery Strategy for the Spotted Owl caurina subspecies (*Strix occidentalis caurina*) in Canada. Species at Risk Act Recovery Strategy Series. Environment and Climate Change Canada, Ottawa. https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry/recovery-strategies/spotted-owl-amended-2025.html

[15] Note that Masked Secured occurrences are not publicly available and the undersigned signed a non-disclosure agreement with the province prior to obtaining the associated information.

occurrence to prevent potential disturbance to sensitive species, ecosystems, or their Critical Habitats. Furthermore, the boundaries of these polygons are deliberately altered every time the BC CDC iMap online tool is accessed to enhance protection.

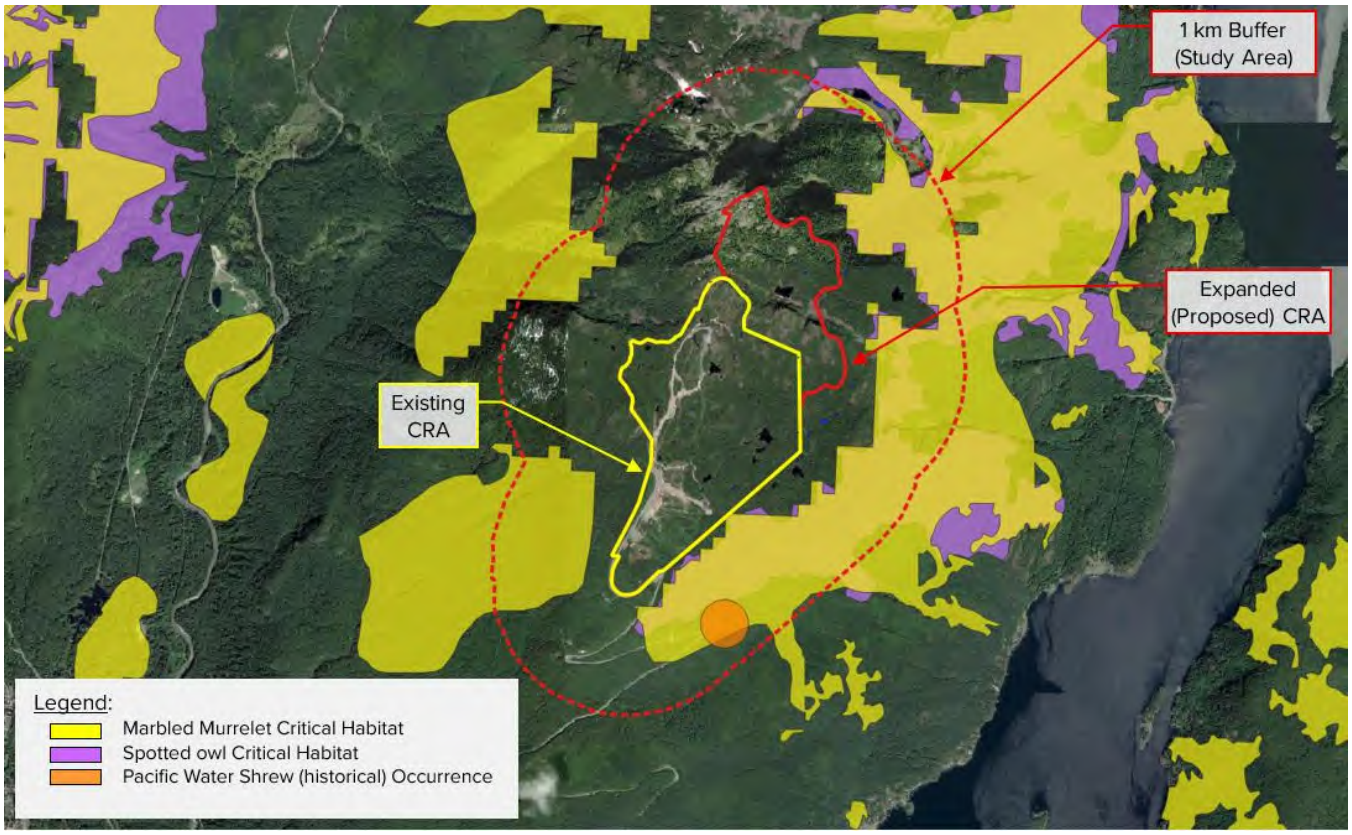


Figure 6: Species at risk occurrences (red polygon) and critical habitat (yellow polygon – final) within a 1 km radius of the Project location (Source: BCCDC iMap; accessed March 30, 2026).

3.8.2 Potential Presence Ratings

Table 1 below summarizes rare or locally significant wildlife species potentially present within or in vicinity of the Project footprint based on an area-based search of the BCCDC Species and Ecosystem Explorer[16], CDC iMap, Metro Vancouver's Habitat Suitability Maps, available literature, and endorsing Professional Biologist's opinion.

A "Potential Presence Rating" for each identified species within or near the Project was established using the following rating system:

- **Unlikely:** Species and their breeding or overwintering habitat unlikely to be present. Occasional observations of migrating or vagrant specimens possible.
- **Possible:** Species may be observed occasionally during feeding activities or during migration, but either habitats supporting a critical period of their life cycle (*e.g.,* breeding, overwintering) are not present or the known range and occurrence records do not include the Project footprint.
- **Likely:** Habitat required to support critical life stages (*e.g.,* breeding, overwintering) is present, but the species was not observed during field investigations or is not documented within the Project

[16] https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/conservation-data-centre/explore-cdc-data/species-and-ecosystems-explorer

footprint. Species may be documented from areas adjacent to the Project footprint.

- **Present:** Species documented breeding/overwintering within the Project footprint or immediately adjacent areas.

Table 1 below summarizes potential presence ratings for species at risk identified to be present, at least periodically, within the Study Area.

Table 1: Province of BC and SARA-listed wildlife species at risk potentially present within the Study Area. (BCCDC SEE, April 2026).

Common Name	Scientific Name	Provincial Status	SARA Status	Potential Presence Rating*	Rationale
Amphibians					
Coastal Tailed Frog	*Ascaphus truei*	Yellow (2022)	1-SC (2003)	Likely	Live in cool, fast-flowing, mainly permanent mountain streams. This species is highly specialized to these turbulent environments, preferring non-fish-bearing headwater streams with coarse rocky substrates. A few occurrences are reported on iNaturalist and the provincial databases along Goldie Creek and near Goldie Lake. The presence of this cryptic species can be expected within the CRA wherever the habitat requirements are met.
Northern Red-legged frog	*Rana aurora*	Blue (2022)	1-SC (2005)	Unlikely	Breeds in a variety of permanent and temporary waterbodies, including potholes, ditches, swamps, marshes, lake margins, and slow-moving rivers. Outside of the breeding period, the frogs inhabit riparian areas with coarse woody debris and structurally complex forest floor habitat, providing cover and maintaining moist microenvironment. The species is typically found below 500 m of elevation in BC, but exceptionally up to 1040 m, which explains the inclusion of this species in this table. On the North Shore, this species is mostly known from lower elevations, including near Rice Lake and the in the Lower Seymour Conservation Reserve. No known observations within the Study area.

Common Name	Scientific Name	Provincial Status	SARA Status	Potential Presence Rating*	Rationale
Western Toad	*Anaxyrus boreas*	Yellow (2022)	1-SC (2018)	Unlikely	Breeds in a variety of aquatic habitats, including lake edges, artificial waterbodies, and temporary and permanent ponds, usually with shallow water. Outside of the breeding season, forage in forests, clearings, shrubby areas, marshes, and other open areas, typically within 1-2 km of their breeding site but movements of up to 7 km have been observed. Found up to 2250 m of elevation. No known occurrences within the Study Area despite being present at similar elevations in Cypress Provincial Park. Suitable breeding habitat exists within the Study Area but the absence of nearby (known) populations makes it unlikely to observe this species in the Study Area.
Birds					
Northern goshawk	*Accipiter gentilis laingi*	Red (2010)	1-T (2003)	Possible	Nests in extensive mature or old-growth forested stands with open understories, mostly under 900 m of elevation and up to approximately 1400 m of elevation. One known iNaturalist occurrence outside of the breeding season along the Elsay Lake Trail and a few incidental sightings within the Maplewood Flats Bird Sanctuary. Suitable breeding habitat is present within the Study Area but there are no known breeding records to date.
Band-tailed pigeon	*Patagioenas fasciata*	Blue (2022)	1-SC (2011)	Possible	Breeds in a variety of forested habitats from urban parks to closed canopy forests. Most common below 300 m of elevation in the Coastal Western Hemlock zone but known presence up to 950 m on the North Shore Mountains. Suitable breeding habitat exists within the Study Area, especially at lower elevations. Breeding in the CRA possible but nearing the higher end of the optimal breeding elevation range.

Common Name	Scientific Name	Provincial Status	SARA Status	Potential Presence Rating*	Rationale
Black swift	*Cypseloides niger*	Blue (2022)	E (2015)	Unlikely	Nests behind waterfalls, on ledges of steep rock faces, on cliffs, and in caves and canyons. Some observations within the Study Area but potential nesting locations more likely at in lower reaches of streams along Indian Arm or the Suicide Gully areas where stream flows are higher.
Barn swallow	*Hirundo rustica*	Yellow (2022)	1-T (2017)	Present	Nests on man-made structures, typically with an overhang to protect the nests. Known nesting on some of the MSR buildings, including the First Aid/Ski Patrol building.
Common nighthawk	*Chordeiles minor*	Blue (2016)	1-SC (2023)	Unlikely	Nests on the ground in open, sparsely vegetated areas, with the highest densities recorded in the Southern and Central Interior valley systems. No known breeding confirmed in the Study Area. Most breeding occurrences in the region are from low elevations sites near valley bottoms.
Evening grosbeak	*Coccothraustes vespertinus*	Yellow (2022)	1-SC (2019)	Unlikely	This species mostly occurs in the mid-elevation plateaus of the province between 1,000 and 1,250 m of elevation. Recorded presence varies greatly in space and time as the species is often associated with outbreaks of forest-defoliating insects. Sporadic occurrences are possible but generally unlikely to be observed every year.
Marbled murrelet	*Brachyramphus marmoratus*	Blue (2022)	1-T (2003)	Unlikely	This species Breeds in old-growth forests, generally below 900 m of elevation, which exist in the lower parts of the Study Area (i.e., within identified Critical Habitat polygons). No documented presence in the Park. Low breeding density and on-going human presence in most of the Study Area are limiting factors for this rare species sensitive to disturbance yielding to an unlikely presence.

Common Name	Scientific Name	Provincial Status	SARA Status	Potential Presence Rating*	Rationale
Olive-sided flycatcher	*Contopus cooperi*	Yellow (2022)	1-SC (2023)	Possible	Nests in cool, mesic or moist conifer forests with tall trees, mainly along forested edges, often near water or wetlands. Rather widespread in the region but in low abundance. No known occurrences in the Study Area despite confirmed breeding at similar elevations in Cypress Provincial Park.
Peregrine falcon, anatum subspecies	*Falco peregrinus anatum*	Red (2011)	-	Unlikely	Nests on cliff ledges or under tall bridges. Some cliffs are present in the Study Area (Suicide Bluffs, De Pencier Lake area) but no breeding occurrences exist. More commonly seen at lower elevations.
Spotted owl caurina subspecies	*Strix occidentalis caurina*	Red (2018)	1-E (2003)	Unlikely	Species associated with intact, mature to old-growth forests, with high percentage of closure. Only a few specimens remain in the wild, but reintroduction of specimens bred in captivity is underway. Historical presence within the Study Area possible, but currently unlikely.
Western screech-owl, kennicotti subspecies	*Megascops kennicottii kennicottii*	Blue (2017)	1-T (2005	Unlikely	Typically nests in mixed old-growth or mature second-growth forests in riparian areas below 1,000 m of elevation, which could potentially include the riparian areas of Goldie Lake or watercourses in the area. However, more suitable habitats exist at lower elevations along the Seymour Reservoir to the west. The high elevation of most of the Study Area and absence of substantial riparian areas yields to an unlikely presence of this species.
Insects					
Black petaltail	*Tanypteryx hageni*	Blue (2023)	-	Unlikely	Only known from a few scattered locations in southwestern BC. This rare and ancient species is typically found in forested areas above 600m with moist seeps. The larvae burrow in mud and moss saturated by trickling water seeping from hillsides, with low to moderate vegetation cover. This species has not yet been detected in Mount Seymour park, despite suitable habitat being present.

Common Name	Scientific Name	Provincial Status	SARA Status	Potential Presence Rating*	Rationale
Clodius parnassian, claudianus subspecies	*Parnassius clodius claudianus*	Blue (2023)	-	Present	This species is typically associated with subalpine wet meadows and riparian areas. Pacific bleeding heart is one of the known host plant for the caterpillars. Nectars on asters, pearly everlasting, fireweed. Species known in the Study Area according to iNaturalist observations.
Johnson's hairstreak	*Callophrys johnsoni*	Red (2020)	-	Unlikely	This butterfly species is found in low-elevation coniferous forests. Western dwarf mistletoe (*Arceuthobium campylopodum*), a parasite plant mostly growing on western hemlock (*Tsuga heterophylla*), is the only known host plant for the caterpillar. No documented occurrences in the Park. The species is only known from a few low-elevation locations in the region, including within the Lower Seymour conservation Reserve. The presence of western hemlocks in the area explains the inclusion of this species, but its presence is deemed unlikely beyond the lower Seymour River watershed areas.
Mammals					
Hoary Bat	*Lasiurus cinereus*	Blue (2022)	-	Possible	Roosts in the foliage of deciduous or coniferous trees. The species does not typically form maternity colonies unlike other species. This species is migratory and does not overwinter in BC. No documented presence in the Study Area, but this species can be difficult to detect and may inhabit the CRA.

Common Name	Scientific Name	Provincial Status	SARA Status	Potential Presence Rating*	Rationale
Little brown myotis	*Myotis lucifugus*	Blue (2022)	1-E (2014)	Possible	One of the most common bat species in the area. Roosts in a variety of natural and man-made features, including buildings, bat boxes, tree cavities, loose bark, and crevices in cliffs and talus slopes. Found in a variety of habitats up to 2,300 m of elevation. No documented presence in the Study Area, but this species can be difficult to detect and may inhabit the CRA. No potential maternity or overwintering site exists near the Proposed Development footprint.
Yuma Myotis	*Myotis yumaensis*	Blue (2022)	-	Possible	Roosts in caves, cliff crevices, bridges, buildings, tunnels, abandoned cliff swallow nests, and cavities in large live trees, typically near water. Found in a variety of habitats up to 1,775 m of elevation. No documented presence in the Study area but species can be difficult to detect and may frequent the CRA. No potential maternity or overwintering site exists near the Proposed Development footprint due to frequent use of buildings during winter months.
*** Potential presence rating given by endorsing Professional Biologist**					

Beyond the presence of invaluable old growth forests, no plants or plant communities or plants at risk were identified as being potentially present within the Study Area during this desktop review. The presence of rare lichens or mosses is deemed possible, but these species can be difficult to identify and require assessment from experts in those groups.

3.9 Other Protected Ecosystems and Habitat Features

There are no other provincially-regulated ecosystems or habitat features (*e.g.*, Ungulate Winter Ranges or other Habitat Units protected under Ministerial Orders, *etc.*) identified within 1 km of the Study Area since all wildlife, plants and ecosystems present within the Mount Seymour Provincial Park boundaries are *de facto* protected under the BC *Parks Act*, unless a Park Use Permit is granted for some activities (including MSR operations) or natural resource exploitation. This, therefore, does not indicate absence of valuable habitat units within the Study Area.

4 RECOMMENDED VALUABLE ECOSYSTEM COMPONENTS

Following completion of the preliminary EOA presented herein, the following Valued Ecosystem Components (VECs) are recommended for consideration during future MSR development and/or environmental management planning, subject to the BC Parks Impact Assessment (BCPIA) process.

4.1 Old Growth Forests

Old-growth forests like those found within the Study Area represent some of the most ecologically complex terrestrial ecosystems in the Pacific Northwest. Characterized by multi-layered canopies, large living trees, standing dead trees (snags), and abundant fallen logs at various stages of decay, these forests provide a structural complexity that cannot be found in younger, second-growth stands. This complexity translates directly into habitat value where snags and tree cavities provide critical nesting and denning sites for many of the wildlife species known to inhabit the area, including cavity-nesting birds, bats, and small mammals such as the Douglas squirrel. Beyond their wildlife value, old-growth forests function as significant terrestrial carbon sinks, storing far greater quantities of carbon in their biomass and soils than younger forests. These forests also play a critical hydrological role, with deep root systems, dense canopy interception, and spongy forest floors working together to moderate runoff, reduce erosion, and maintain water quality across the many creeks and lakes that drain into the Seymour River and Indian Arm.

At the ground level, the humid and shaded conditions support exceptional diversity of mosses, lichens, fungi, and invertebrates that form the foundation of broader ecological food webs. Given that less than 3% of original coastal old-growth forest in British Columbia remains outside of protected areas, the forests within the CRA and Mount Seymour Provincial Park present some significant conservation value, which needs to be integrated with recreational use in the area.

4.2 Other Terrestrial Habitat of Significance

Cliff faces, talus slopes, and wildlife trees represent discrete but highly valuable habitat features within the Mount Seymour landscape. Cliff faces and rock outcrops provide sheltered ledges that are largely inaccessible to ground-based predators, making them attractive nesting and roosting sites for species that favour elevated, undisturbed vantage points, such as raptors. The complex network of voids and chambers within talus provides thermal refugia and shelter for a range of species, including several bat species that may use these features for day roosting during summer months or for overwintering. American pika also relies heavily on talus for cover, food caching, and thermoregulation. Wildlife trees, meanwhile, are among the most ecologically productive structural elements in old-growth forests. Snags at various stages of decay provide nesting cavities for birds such as woodpeckers and secondary cavity nesters, roosting sites for bats, and denning habitat for small mammals. The coarse woody debris that results from falling snags further enriches the forest floor, supporting invertebrate communities that sustain much of the broader food web.

4.3 Watercourses, Lakes, and Wetlands

Several watercourses, lakes, and wetlands are present within and adjacent to the CRA, collectively forming a network of aquatic and riparian habitats of high ecological value. These features include both permanent and intermittent streams draining toward the Seymour River and Indian Arm, as well as small lakes, ponds, and seasonally saturated wetland areas distributed across the landscape. Many of these waterbodies lie within or adjacent to old-growth forest, and their ecological value and functionality is closely linked to the health of this surrounding environment.

These aquatic features provide essential habitat for a broad range of species and life stages. Permanent

and periodic waterbodies support amphibian breeding populations, including species such as the coastal tailed frog and northwestern salamander, both of which depend on cold, well-oxygenated water and intact riparian buffers. Streams and lakes also provide foraging habitat for numerous bird species associated with riparian shrub communities. Black bears rely heavily on aquatic corridors during seasonal foraging. Bat species are strongly associated with open water surfaces for foraging on emergent insects, particularly during evening hours.

Wetlands provide disproportionate ecological value relative to their size, functioning as nutrient cycling hubs, water filtration systems, and carbon storage features. They also buffer downstream watercourses from peak flows and sedimentation, supporting water quality across the broader Seymour watershed, a consideration of particular relevance given the area's role in Metro Vancouver's drinking water supply.

These sensitive habitats face a number of cumulative pressures. Recent changes in precipitation patterns and rising average temperatures have the potential to alter seasonal flow regimes, reduce snowpack-fed baseflows, and increase the frequency of drought stress in smaller waterbodies. Increases in impervious surfaces associated with recreational infrastructure development can accelerate runoff, increase sediment and contaminant loading, and reduce groundwater recharge to wetlands and springs. These hydrological changes can degrade habitat quality even in the absence of direct physical disturbance.

It should also be noted that not all aquatic features within the CRA are currently known or accurately mapped. Seasonal wetlands, ephemeral streams, and small seeps are frequently absent from existing spatial datasets, yet may still provide critical ecological functions and may be afforded legal protection under the Water Sustainability Act (see Section 5.2) regardless of their size or permanence. Due consideration of their potential presence is therefore required prior to any further development, whether in-stream or within associated riparian zones.

4.4 Birds

A variety of bird species are known to breed within the Study Area every year, which requires special consideration during any vegetation maintenance and clearing (including shrubs and low-lying vegetation) during the bird nesting window of March 12 to August 17[17] as all birds, their eggs, and their nests (while occupied) are protected under Section 34 of the BC *Wildlife Act*. Breeding at higher altitude may be restricted to a shorter time period while warmer winters and springs may trigger early bird nesting, especially for resident birds. Additionally, the nests of some species observed in the Park are protected year-round under the Act, including bald eagle (*Haliaeetus leucocephalus*), peregrine falcon (*Falco peregrinus*), and great-blue heron (*Ardea herodias*). Some raptor species have extended breeding periods in comparison with passerine birds, with mating starting as early as January and juveniles present near the nest into September. The Guidelines for Raptor Conservation during Urban and Rural Land Development in British Columbia[18] provides specific breeding windows for the raptor species found in the province.

Most of the areas within the expanded CRA can offer some foraging and nesting opportunities (including buildings) during the breeding period for migrant and resident birds. Both old forests and edge habitat along existing disturbance areas provide high habitat complexity, offering diverse food sources, nesting sites, and shelter.

[17] https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/general-nesting-periods/nesting-periods.html#toc2

[18] https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/best-management-practices/raptor_conservation_guidelines_2013.pdf

4.5 Bats

The range, summer roosting, and overwintering habitats of many of the 15 bat species present in BC are still not well known in the Province. Bats face many threats including habitat loss and fragmentation, intentional and unintentional colony disruption, mortality due to wind turbines, and the effects of the white-nose syndrome. The latter is caused by *Pseudogymnoascus destructans,* a rapidly spreading fungal disease that has decimated bat populations in eastern North America and has recently been found in bat guano in BC, but no infected specimen have been identified in the province at the time of writing.

Given these pressures, identifying and protecting bat habitat within the Study Area is particularly important. Although most bat species are known to typically overwinter in caves, old mines or buildings, smaller colonies have been shown to use rock crevices in cliffs or talus slopes. The presence of a wide variety of habitats suitable to bats within and near the Study Area such as cliffs, watercourses, lakes, and forested areas, is likely suitable to at least a few bat species, including the little brown myotis, which is one of the most widespread and abundant bat species in Canada.

4.6 Black Bears

Black bears are a common sight within the CRA and adjacent areas. The diverse habitat mosaic present in Mount Seymour Provincial Park and limited human development supports all the life history requirements of the species and makes the area a particularly valuable bear habitat. However, increasing development pressure in the North Shore continues to reduce and fragment the broader habitat matrix available to bears, concentrating their movements within and around the park boundary.

This urban-wildland interface dynamic elevates the risk of human-bear conflict, as bears drawn to anthropogenic food sources including garbage, bird feeders, and unsecured food can become food-conditioned and increasingly bold in their interactions with people. Such conflicts frequently result in negative outcomes for individual bears and can erode public tolerance for the species more broadly. Any future development or intensification of recreational infrastructure within the CRA should therefore carefully consider its potential to intensify these pressures, with particular attention to wildlife movement corridors, seasonal bear activity patterns, and the implementation of bear-aware practices across all site operations.

4.7 Amphibians

The presence of numerous wetlands, lakes, streams, and associated riparian habitat are highly suitable for many amphibians, with northwestern salamander, Pacific treefrog, and Coastal tailed frog expected to be the most common species. Activities in riparian areas, disturbance to large woody debris and rock piles (potential hibernacula), and works below the high-water marks of waterbodies have the potential to disturb amphibians. In light of the ecology and known range of the listed amphibian species known to inhabit the area, any wetland and riparian areas can be considered potential breeding and foraging habitat for these species, regardless of their size or temporary nature. Additionally, any suitable overwintering habitat (e.g., talus slopes, coarse woody debris, and wetlands) adjacent the wetlands and riparian areas should be protected by default or require further assessment.

4.8 Species at Risk

A number of Species at Risk (see Section 3.7) have been identified as present or potentially present in the Study Area, many of which could be impacted through future development and/or operations by MSR. Bird and bat species at risk are the most likely to be impacted by vegetation clearing, habitat loss, or even building demolition, which should be conducted outside of the respective breeding windows. Barn

swallow, band tailed pigeon, olive-sided flycatcher and little brown myotis are the species the most likely to be encountered within the CRA based on the known species distribution and abundance in similar habitats on the North Shore Mountains. Additionally, coastal tailed frogs are found within fast flowing streams and riparian areas, and clodius parnassian butterflies are associated with wet meadows.

4.9 Other Wildlife

Beyond the species addressed in the previous sections, the CRA and surrounding landscape support a diverse community of small to medium-sized mammals that contribute to the broader ecological integrity of the area. Species such as the American pika, Douglas squirrel, snowshoe hare, and mule deer have been observed within or adjacent to the Study Area.

While many of these species maintain relatively flexible habitat associations, others such as the American pika are highly specialized and restricted to specific microhabitats such as talus slopes and boulder fields. The pika is highly sensitive to elevated temperatures and is widely regarded as an indicator species for the effects of climate change in montane environments. Its restricted thermal tolerance means that even modest increases in ambient temperature can impact their survival in the area.

More broadly, small and medium mammals fulfill critical ecological roles within the CRA, including seed dispersal, prey availability for raptors and carnivores, and the regulation of invertebrate and plant communities. The connectivity of habitats within and surrounding the park is essential to maintaining viable populations of these species, as fragmentation from infrastructure development can restrict movement, reduce genetic exchange, and increase mortality risk from vehicle collisions and predation at habitat edges.

5 REGULATORY CONSIDERATIONS

The following provincial and federal legislations below are likely to apply during any future development within the CRA.

5.1 BC Park Act

The *Park Act* is the primary provincial legislation governing the establishment, classification, and management of provincial parks, including Mount Seymour Provincial Park and the CRA within which the ski resort operates. While the CRA designation allows for a greater range of recreational infrastructure and operational activities than in the broader Mount Seymour Provincial Park, it does not exempt the area from environmental obligations and habitat and wildlife protection. Effectively, in all parks, conservancies, and recreation areas, it is prohibited to damage, destroy, possess, or remove from the park any natural resource, which includes wildlife, plants and vegetation.

Whitin the context of this legislation, any proposed “Action” by any proponent within the boundaries of a BC Park, including the Mount Seymour CRA, is subject to the Beyond the direct impacts of any proposed Action on the recommended VECs and listed species, the BCPIA also requires the consideration of cumulative impacts resulting from the combined effects of past, present, and potential future human activities and natural processes, which is guided by the BC Cumulative Effects Framework[19]. Natural processes include climate change, which is already affecting the mountain ecosystems as warmer summers result in earlier snowmelt, more frequent forest fires, changes in distributions of plants and wildlife, while changes in weather patterns and the occurrence of more frequent extreme weather events can dramatically affect species and habitats. Sartori recommends inclusion of Cumulative Effects of future

[19] https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/cumulative-effects-framework/overview

proposed Actions and/or environmental management planning, commensurate and appropriate to both the spatial and temporal scope of proposed Action/management planning. process. The BCPIA is BC Parks' internal assessment framework to identify impacts on Provincial Protected Areas (PPA) values, evaluate the significance of those impacts, determine appropriate mitigation measures, and assist with decisions on whether the Action should proceed.

The BCPIA is a values-based assessment framework that does not provide any prescriptive setbacks around terrestrial or aquatic features. It does not set a fixed numerical buffer distance around watercourses like the Riparian Area Protection Regulation (RAPR) does, and RAPR does not apply in provincial parks. However, watercourses and riparian values are explicitly among the ecological values that must be assessed under the BCPIA process, and any proposed action within a park that has potential impacts on a watercourse or riparian area would trigger detailed review. In the absence of legislated setbacks around waterbodies within BC Parks, a 30 m minimum buffer remains the typical best-practice benchmark used by QEPs when assessing riparian impacts, and any development within 30 m of any watercourse should be submitted to BC Parks for review and may require further permitting under the BC *Water Sustainability Act*.

5.2 BC Water Sustainability Act

Under the BC *Water Sustainability Act* (WSA), a "Stream" is a natural watercourse, including a natural glacier course, or a natural body of water, whether or not the stream channel has been modified. A Stream can include a lake, pond, river, creek, spring, ravine, gulch, wetland, or glacier, whether or not usually containing water, including ice. The WSA definition of a Stream does not consider presence of fish and generally includes any aquatic feature receiving groundwater influence, whether permanent or not. Making changes in and about a Stream, which impacts the nature of the Stream or Stream channel, requires to be permitted through a Notification of Authorized Changes or Change Approval under the WSA.

Conversely, water features only conveying surface run-offs during rain events or during snowmelt, as well as shallow infiltrated stormwater that has not yet entered a Stream or an aquifer (i.e., groundwater), are exempt from these WSA permitting requirements[20]. Additionally, ditches constructed alongside a road, for the purpose of draining surface runoff from the road surface or to divert groundwater to lower the water table to protect the road (i.e., corridor drainages), are also exempt from the WSA permitting process.

Surface hydrology within the Seymour Mountain CRA has been altered by on-going operations and maintenance, making it challenging to distinguish between water features that are considered a "Stream" under the BC *Water Sustainability Act* (WSA). This distinction is important as it bears some permitting implications for the crossing of these water features. Numerous corridor drainage ditches, typically considered WSA-exempt, have been constructed within the Seymour Mountain CRA to convey snowmelt and stormwater downslope within existing disturbance areas (e.g., roads, hiking trails and ski runs) as well as through some forested areas where scour channels have self-established. In some cases, erosion from annual surface runoffs, accentuated by the steep mountain slopes, has deepened these channels to the point where they begin to receive groundwater inputs, thus meeting the criteria for WSA-applicable Streams. As such, a water feature initially considered WSA-exempt may become WSA-applicable further downslope. Once groundwater influence is confirmed, the water feature is identified as a Stream, even if it later goes subsurface or dries up in lower sections.

[20] These features may nonetheless be subject to the Riparian Area Protection Regulation, which does not apply within the Park.

5.3 BC Wildlife Act

The *Wildlife Act* is the primary provincial legislation governing the protection of wildlife in BC. Under the Act, it is an offence to hunt, wound, kill, trap, or possess wildlife without proper authorization, providing broad legal protection to the mammal and bird species known or likely to occur within the Study Area against harm. Of particular relevance to recreational activities and planned development within the CRA is the prohibition against the disturbance, harassment, or interference with wildlife. This prohibition extends beyond direct harm to specimens and includes activities that may disrupt normal behavioural patterns such as breeding, foraging, and denning.

Under Section 34 of the *Wildlife Act* the nests of most native birds are protected whenever a live bird or viable eggs are present in it. Old nests or nests in the process of being built can be removed if unoccupied, unless it belongs to a bird listed under the federal *Species at Risk Act* (see below). Additionally, the nests of some species are protected year-round, including peregrine falcon, great-blue heron (*Ardea Herodias*), bald eagles (*Haliaeetus leucocephalus*), and ospreys (*Pandion Haliaetus*), all of which are known to occur within the North Shore area.

Invertebrate species do not benefit from any protection under the *Wildlife Act* unless the Minister responsible for the *Wildlife Act* or the Lieutenant Governor in Council can issue orders or regulations to protect wildlife and their habitat (e.g., Wildlife Habitat Areas or Ungulate Winter Ranges).

5.4 Federal Species at Risk Act and Migratory Birds Convention Act

At the federal level, the *Species at Risk Act* (SARA) provides an additional layer of protection for wildlife species assessed and listed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) as extirpated, endangered, threatened, or of special concern. Under SARA's general prohibitions, it is an offence to kill, harm, harass, capture, or take a listed species, or to damage or destroy the residence (e.g., a nest or den) of any listed individual. However, the geographic scope of these protections varies depending on the taxonomic group in question. These broad prohibitions do not apply to species on provincial lands other than aquatic species and migratory birds, unless the federal Cabinet makes a discretionary order providing that the prohibitions apply to such species. In practical terms, this means that for most terrestrial species at risk, SARA's protection applies primarily on federal lands.

Migratory birds listed as endangered or threatened under SARA receive broader protection as their nests and eggs, are protected anywhere they are found in Canada. For example, the nests of barn swallows are considered a “residence” and afforded protection from May 1 or whenever birds are first seen building a nest, whichever is earlier, through August 31, or whenever a bird is last seen at a nest, whichever is later. Additionally, the nests of great-blue heron and pileated woodpecker are protected under the Migratory Bird Regulation for a period of 36 months after they were last used by a bird species covered in the MBCA.

Aquatic species, including fish as defined under the federal *Fisheries Act*, are protected by SARA wherever they are found in Canada, regardless of whether they occur on federal or provincial lands. However, no federally listed fish or aquatic species are present within the CRA.

5.5 Federal Fisheries Act

The *Fisheries Act* prohibits the death of fish by means other than fishing, harmful alteration, disruption or destruction (HADD) of fish habitat and the deposit of deleterious substances. The latter includes any potentially lethal chemical but also sediment-laden water, which is relevant for any construction activities that be causing undue sedimentation into headwater streams.

6 CONCLUSION AND ENDORSEMENT

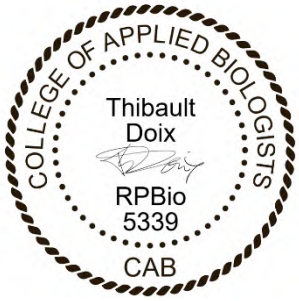
This desktop environmental assessment provided a broad characterization of the ecological features and sensitivities within the CRA. Any future Actions proposed by MSR will require further assessment of potential impacts on the VECs identified in this report and should be submitted to BC Parks for review as part of their Impact Assessment process.

If you have any questions about the content of this report, please feel free to contact the undersigned.

Roe Environmental Inc.

Prepared and endorsed by:

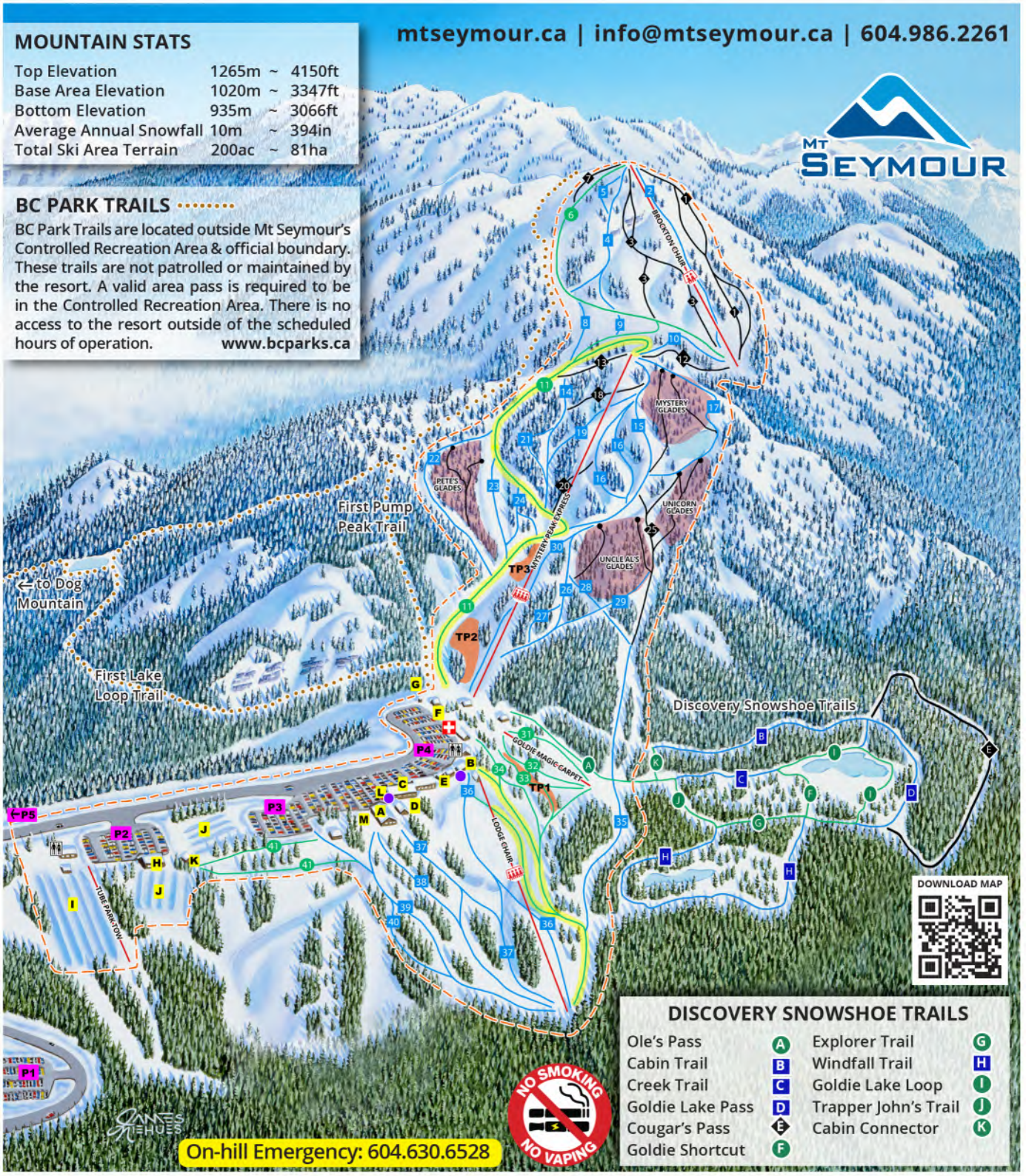
The undersigned certifies the work described herein fulfills standards acceptable of a Professional Biologist.



[Digital Signature]

Thibault Doix, R.P. Bio.
Senior Biologist
Email: thibault@roe-env.ca

APPENDIX A: MOUNT SEYMOUR RESORT TRAIL AND AMENITY MAP



- Easier
- Intermediate
- Advanced

- Night Runs
- Gladed Terrain
- Ski Area Boundary
- Slow Zone

TERRAIN PARKS

- TP1 Mushroom (S, M)
- TP2 The Pit (M, L, XL)
- TP3 Northlands (L, XL)

MARKED RUNS

1. Sterns Stairway
2. Hang Ten
3. Cliff House
4. Sammy J
5. Maverick
6. Brockton Gully
7. Sunshine Ridge
8. Sammy's Express
9. Exit 22
10. Backdoor
11. Manning
12. Scooter
13. Noel's Flight
14. Velvet Gully
15. Northlands
16. Friendly Nuthouse
17. Mystery Lake
18. Nutcracker
19. Looper Express
20. Devil's Drop
21. Wonger
22. Pete's
23. Elevator Shaft
24. Earl's
25. Unicorn
26. Gun Barrel
27. Crowfoot
28. Slingshot
29. Boomerang
30. Towerline
31. Goldie Meadows
32. Flower Basin
33. Mushroom
34. Rookies
35. Lower Unicorn
36. Chuck's Place
37. Trapper John's
38. Seymour 16's
39. Cabin Trail
40. Mistletoe
41. Lodge Connector

PARKING

- P1 Snowshoe/Backcountry
- P2 Tubing & Tobogganing
- P3 Downhill Ski/Snowboard
- P4 Downhill Ski/Snowboard
- P5 Lower P5, Snowshoe & Backcountry

FACILITIES

- First Aid/Ski Patrol
- Washrooms
- A Ski & Snowboard Rentals, Retail Store & Service Shop, Alpine Activity Centre
- B Tickets, Passes & Information, Guest Services
- C Cafeteria & Restaurant, Three Peaks Lodge
- D Snowshoe Rentals & Tickets, Snowshoe Centre
- E Retail Store, The Hut
- F Lessons Ages 3-7, Bear's Den
- G BC Parks Trailhead & Kiosk
- H Tickets, Cafe & Retail Store, Enquist Lodge
- I Enquist Tube Park
- J Enquist Toboggan Park
- K The Yurt
- L Lessons Ages 7+, Guest Services Hut
- M Learning Area
- Ticket Pick-up Machines

BRENT HARLEY & ASSOCIATES

Brent Harley and Associates Inc.
#4 – 1005 Alpha Lake Road
Whistler, BC
V8E 0H5
604.932.7002
bha@brentharley.com
www.brentharley.com