

Zincton

Expression of Interest

May 2020

Prepared for:

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1 INTRODUCTION

1.1 Project Overview

On behalf of David Harley, Brent Harley and Associates Inc. (BHA) is pleased to present this Expression of Interest (EOI) to develop an all-season resort along London Ridge and Whitewater Ridge, near New Denver, B.C. The development of Zincton represents the evolution of all-season resorts in BC and Canada.

As envisioned:

Zincton will be a world-class, all-season, backcountry-oriented mountain destination that delivers an unparalleled recreation experience complemented by a pedestrian-only, environmentally sustainable Mountain Village.

If realized, this project will establish an all-season, backcountry-oriented mountain destination catering to dedicated local, regional, and international guests seeking an immersive mountain experience with world-class accommodation and amenities. The proposed development will blend the lift-serviced recreation experience offered at traditional mountain resorts with an extensive and accessible backcountry offering increasingly being sought by the skier marketplace.

Zincton will offer a range of winter backcountry experiences, including “laps” on chairlifts based out of the Mountain Village and non-mechanical, human-powered backcountry skiing. This range of winter experiences will be matched in summer by a hiking and mountain bike trail network offering challenging hikes, epic rides, and a backcountry mountain experience. The trails will range from short, accessible trails to full day mountain adventures for the more ambitious. Additionally, a vast existing network of old rail trails connects Zincton to Retallack, Sandon, New Denver, Slocan Lake, and beyond, creating experiences suitable to all experience and skill levels.

Base area amenities will include a comprehensive Mountain Village that will meet the full range of guest needs and a remote, luxury Backcountry Lodge in Goat Canyon below Whitewater Ridge. The Mountain Village and a portion of the recreation facilities (e.g. ski trails, mountain bike trails) will be developed on private land adjacent to the proposed CRA. Combined with lift-serviced skiing at either end, guests will create their own personal mix of accommodation between the Mountain Village and the remote Backcountry Lodge, and lift-serviced and backcountry recreation experiences, both guided and unguided.

The proposed location for Zincton is situated on Crown lands just north of and parallel to Highway 31A, extending between the historic mining towns of Three Forks and Retallack. The site sits approximately 8 km east of New Denver and 38 km west of Kalso, and straddles Electoral Area H and Electoral Area D of the Regional District of Central Kootenay. The study area covers an area of approximately 5,500 ha, with land that rises almost 1,900 m from the Kaslo River (800 m) to the summit of Whitewater Mountain (2,768 m).

Based on preliminary analysis, at buildout Zincton would have a backcountry oriented Comfortable Carrying Capacity (CCC) of approximately 1,550 skiers per day and a Balanced Resort Capacity (BRC) of approximately 1,750 guests. The calculation of CCC adapted the approach detailed in the All Season Resort Guidelines to better represent the realities and expectations of backcountry skiers and the vision of authentic backcountry skiing experience. Of

note, these calculations include the recreation and resort amenities proposed for the private lands just above Three Forks (i.e. the Mountain Village and associated amenities). The BRC includes complementary activities, such as snowshoeing and cross-country skiing, and passive guests (6% of winter season CCC).

Zinton is anticipated to have a limited spatial or environmental footprint owing to a focus on authentic backcountry recreation which relies on unaltered, natural landscapes. Ski outs/egress routes will be developed to facilitate guest circulation back to a limited number of backcountry-oriented chairlifts as accessed via an extensive 'nature-oriented' trail and glading network. Trail development and maintenance (e.g. summer grooming and snow groomed trails found at typical ski resorts) will be minimized. The staging areas, Mountain Village, and Backcountry Lodge will all be developed following industry best practices for sustainability, recognizing that the unaltered natural setting will be a key draw for guests.

The vision for this project comes from Mr. David Harley, founder and president of Valhalla Pure Outfitters. Mr. Harley has worked and played in the Goat Range mountains and local communities over the past four decades and has come to recognize and understand the significant recreation potential of the area. BHA, working closely with Mr. Harley, has prepared the following document to provide a preliminary description of the proposed all-season resort. Aligned with the direction laid out in the All Season Resort Guidelines (ASRG), the intent of this document is to describe the existing resort context, provide preliminary site inventory and analyses, as well as initial mountain and base area concepts and a preliminary market commentary.

1.2 Project Rationale

The popularity of backcountry skiing and ski touring has increased exponentially in recent years. Improvements to backcountry ski technology, falling equipment prices, and readily available backcountry information and training in concert with increasing lift ticket prices and the desire to get away from crowded traditional resorts have seen backcountry skiing transformed from the pursuit of hardcore mountaineers and extreme athletes to the pastime of weekend warriors. Zinton capitalizes on the rapidly growing backcountry skiing and ski touring markets and the growing discontent with the traditional resort experience while offering the supports, comforts, and amenities of an all-season resort.

Accurate participation numbers for backcountry skiing are very difficult to measure due to a lack of effective tracking tools and the vast geographic area used by skiers. However, use of popular backcountry skiing websites and sales numbers from industry retailers indicate a strong and growing guest marketplace. BackcountrySkiingCanada.com reports traffic on its route webpages (i.e. webpage dedicated to a specific backcountry ski route) is approximately doubling annually. In the equipment industry, ski, boot and binding suppliers report 20-40% annual growth in units sold¹. Backcountry equipment surpassed 12% of all ski equipment sales in 2015, and continues to expand rapidly as large, dominant equipment brands enter the market, innovate, and offer equipment at more affordable prices¹. Given this, it is reasonable to anticipate that backcountry gear will soon equal more than 20% of total ski equipment sales, with growth at 50% year over year. It is this growth in the backcountry market in concert with a shift in guest preferences away from a traditional resort ski experience that Zinton will strive to capitalize on.

¹ Snowsport Industries Association (2019). Available at: <https://snowsports.org/>

1.3 Project Goals and Objectives

Guided by the vision of a world-class, all-season, backcountry-oriented mountain destination, the mission statement for Zincton is:

Zincton will offer accessible four-season backcountry recreation experiences unique to the mountain resort market, as staged from the comforts and amenities of an intimate, pedestrian-oriented Mountain Village developed on adjacent, privately held lands.

To achieve this, the following objectives were established as guiding principles in the creation of the preliminary Zincton concepts:

- To develop a unique, lift-accessed backcountry recreation experience not found elsewhere, creating an alternative to the typical mountain resort experience;
- To create a high-quality mountain destination experience that caters to the residents of the region and destination guests from other parts of the Province, Canada, and the globe.
- To develop a diverse suite of recreational opportunities that complements and enhances the public and commercial backcountry recreation opportunities of the surrounding area.
- To develop an all-season resort that will complement the goals and objectives of the local communities, First Nations, and the Regional District of the Central Kootenay.
- To preserve, enhance, and showcase the natural beauty of the Goat Range and Selkirk Mountain Range
- To establish a destination that government, industry, and the public will recognize as a leading example of environmentally sensitive, socially and culturally responsible development.
- To provide year-round tourist attractions that may include skiing, cross-country skiing, snowshoeing, sightseeing, mountain biking, hiking, backcountry touring, cultural/ecological interpretive programs, and more.
- To be a resilient all-season resort that can offer a range of world-class outdoor experiences regardless of seasonal weather conditions.
- To stage from the associated, adjacent, privately held and integrated resort-oriented real estate in a mountain village context as a means of balancing and complementing Zincton's facilities and attributes.
- To contribute to BC's growing reputation as a world-class, year-round tourism destination.
- To cater to the increasing number of visitors to the region, in turn supporting local economic growth and diversification.
- To expand the economic and local employment opportunities for residents.
- To develop a mountain destination that is economically viable, serving as an important generator for the local and regional economies, and contributing important revenue to the government tax base.

2 RESORT CONTEXT

2.1 Location and Study Area

The proposed location for Zincton is within the Goat Range of British Columbia's Selkirk Mountain Range, approximately 10 mins east of New Denver, BC along Highway 31A, in the Regional District of the Central Kootenay (Fig. 2-1). The proposed area extends along London Ridge anchored at one end by Whitewater Mountain (2,768 m), with the Kaslo River forming the southern boundary, Kane Creek acting as the northern boundary, and Whitewater Creek serving as the eastern boundary. The site sits above the old mining towns of Three Forks, Zincton, and Retallack.



2.2 Access

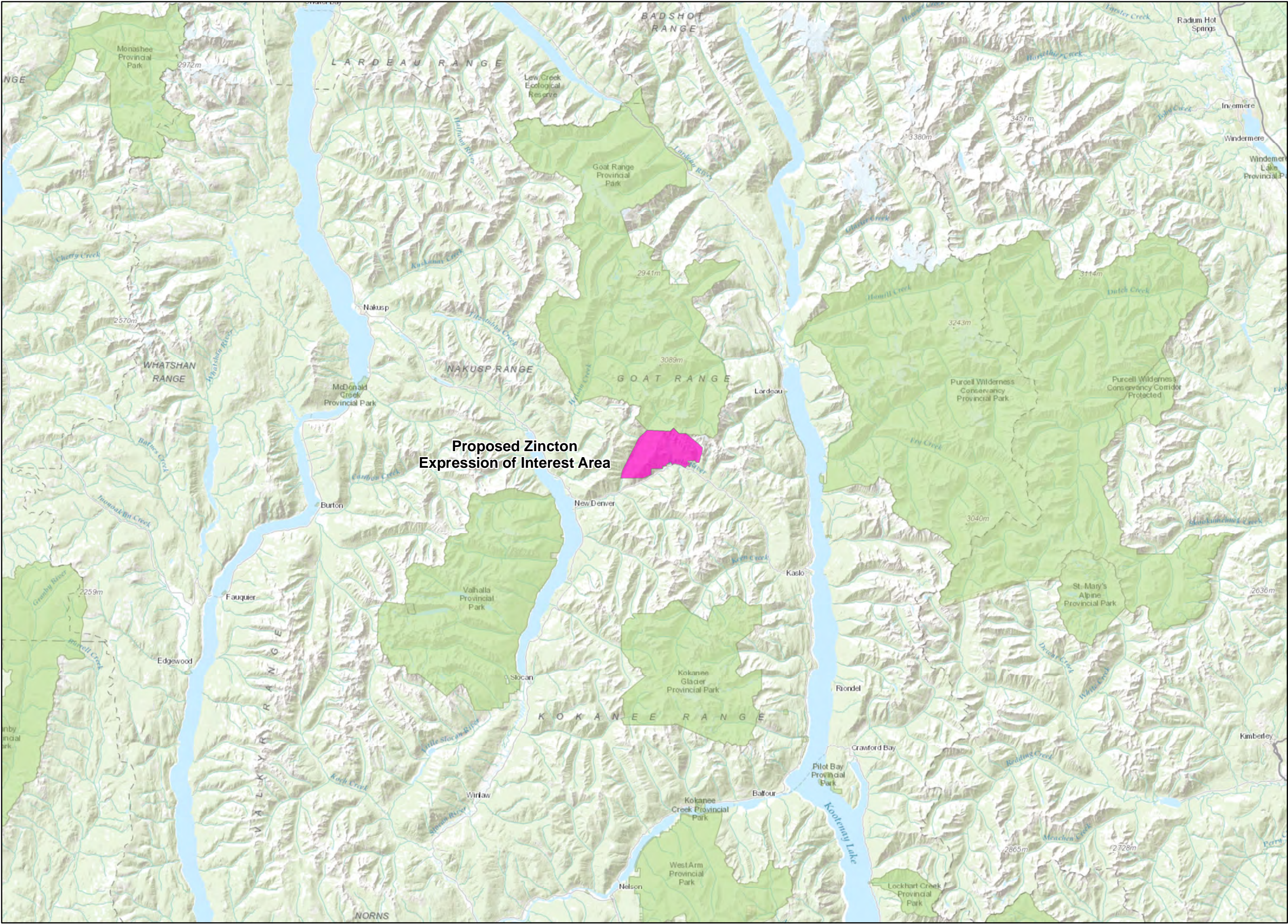
All road access to the proposed destination would be from Highway 31A. The proposed base and staging areas will be serviced from secondary roads branching off the highway. Driving times to regional population centres are included in Table 2-1.

Table 2-1. Distance and Drive Times to Regional Population Centres

Population Centre	Distance (km)	Drive Times (hr)
New Denver, BC	8	0.25
Kaslo, BC	38	0.5
Nelson, BC	108	1.5
Castlegar, BC	107	1.5
Revelstoke, BC	160	2.3
Vernon, BC	250	3.5

Guests coming from further away can travel to the resort via the West Kootenay Regional Airport in Castlegar and Trail Regional Airport in Trail, which has daily service to Vancouver and Calgary (Castlegar only), or Kelowna International Airport in Kelowna, which has service to locations throughout Canada, the USA, and Mexico. Rental cars are available at all locations and the possibility of direct shuttle to the resort will be explored through the planning process.

As currently envisioned, upon arrival guests will access the site from a staging area in the valley bottom 1.15 kms north of Three Forks, off Highway 31A. This site will host parking and limited guest services. From the parking area, guests will load onto the gondola to access the centre of the Mountain Village above. A secondary access road will be built directly to the Mountain Village from Highway 31A, but its use will be primarily to cater to the residences and commercial services. As part of an early phase of development, the proponent will construct or upgrade all roads to meet Ministry of Transportation and Infrastructure construction standards and ensure a safe and comfortable drive for guests.



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Legend

- Proposed Zincton EOI
- Provincial Parks

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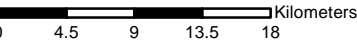
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Location Context
Regional

Figure 2-1

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2.3 Community Context

The towns of Three Forks, Zincton, and Retallack are labelled as ‘ghost towns’, having reached their peak in the early 1900’s and fading with the decline of the local mining industry. However, a young and vibrant community of backcountry adventurers from the region have adopted the area in recent years. Interest and participation backcountry skiing and ski touring has grown exponentially over the last five years, followed closely by mountain biking, paddlesports, and boating on the nearby Slocan and Kootenay Lakes. Zincton adds to the range of recreation opportunities in the area, building on and complementing existing backcountry recreation options, trails and facilities, in turn enhancing the reputation of the region among backcountry enthusiasts and recreationalists.

Looking beyond the valley and the immediate surroundings to the broader Slocan Lake District, the area has historically been resource based, whether mining or forestry. However, starting in the mid-1990s the region embarked on an economic transition to eco-tourism and educational tourism that celebrates the local environment, arts, culture, and heritage². Agriculture, value added manufacturing, and transportation have also been identified as important secondary economic drivers. Through this process, residents have been careful not to lose the unique local character of the region and work to ensure a high quality of life the area is known for. Zincton is aligned with this vision, adding to and diversifying the local economy and contributing to the transition to an eco-tourism-based economy, while ensuring the scale of development does not overwhelm the landscape or local communities. The existing environmental attributes and community character of the area is known for are key elements of the project’s overall offering to guests.

From a regional planning perspective, the lands for Zincton are zoned Resource Area by the Regional District of the Central Kootenay. The Resource Area zone permits a range of resource extraction activities, public recreation, and tourism in balance with the area’s aesthetic and natural values³. The objectives listed for this zone include the promotion of sustainable economic development, which includes recreation-based activities such as those proposed for Zincton.

Based on the 2016 Census, there are approximately 155,000 residents within 250 km of the proposed destination, with the largest communities being Vernon, Coldstream, Nelson, and Castlegar⁴. It is anticipated that Day Use skiers will travel to Zincton from regional population centres, notably Nelson, Castlegar, and Revelstoke which have sizeable backcountry recreationalist communities.

² Mike Stolte & Associates (2010). *Building a Healthy Economy in the North Slocan Valley*. Retrieved from: <http://slocanlakechamber.com/wp-content/uploads/2012/11/HEALTHY-ECONOMY-FINAL-REPORT.pdf>

³ Regional District of Central Kootenay (2009). *Slocan Lake North: Slocan Lake North Portion of Electoral Area ‘H’ Official Community Plan Bylaw No. 1967*. Retrieved from: https://rdck.ca/assets/Government/Bylaws/Land-Use-Planning/1967_Hn_OCP.pdf#search=%22Official%20Community%20Plan%20Area%20H%22

⁴ Statistics Canada (2019). *Data products, 2016 Census*. Retrieved from: <https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/index-eng.cfm>

2.4 First Nations

Analysis using the Province's Consultative Areas Database indicated that the following First Nations may have an interest in the proposed site.

- Shuswap Nation Tribal Council
- Adams Lake Indian Band
- Little Shuswap Indian Band
- Neskonlith Indian Band
- Shuswap Indian Band
- Skeetchestn Indian Band
- Tk'emlups te Secwepemc Indian Band
- Splat's'in Indian Band
- Simpcw First Nation
- Ktunaxa Nation Council
- Upper Nicola Indian Band
- Okanagan Nation Alliance
- Okanagan Indian Band
- Penticton Indian Band
- Lower Similkameen Indian Band

David Harley has reached out to and engaged with some of the local First Nations to understand their goals and objectives for the area and possible synergies with the proposed development with the long-term goal of creating shared, sustainable prosperity. As the planning process moves forward, Mr. Harley welcomes participation by all First Nations with an interest in the area and will look to continue these conversations throughout the planning process. Central to the vision of Zincton is a mountain destination that helps to achieve the goals and objectives of local First Nations.

2.5 Adjacent Land Use

2.5.1 Existing Commercial Recreation Interests

The proposed EOI study area boundary overlaps with 3 existing Commercial Recreation tenures administered under the Adventure Tourism Policy. These are illustrated in Figure 2-2 and listed below in Table 2-2.

Table 2-2. Existing Commercial Recreation Tenures

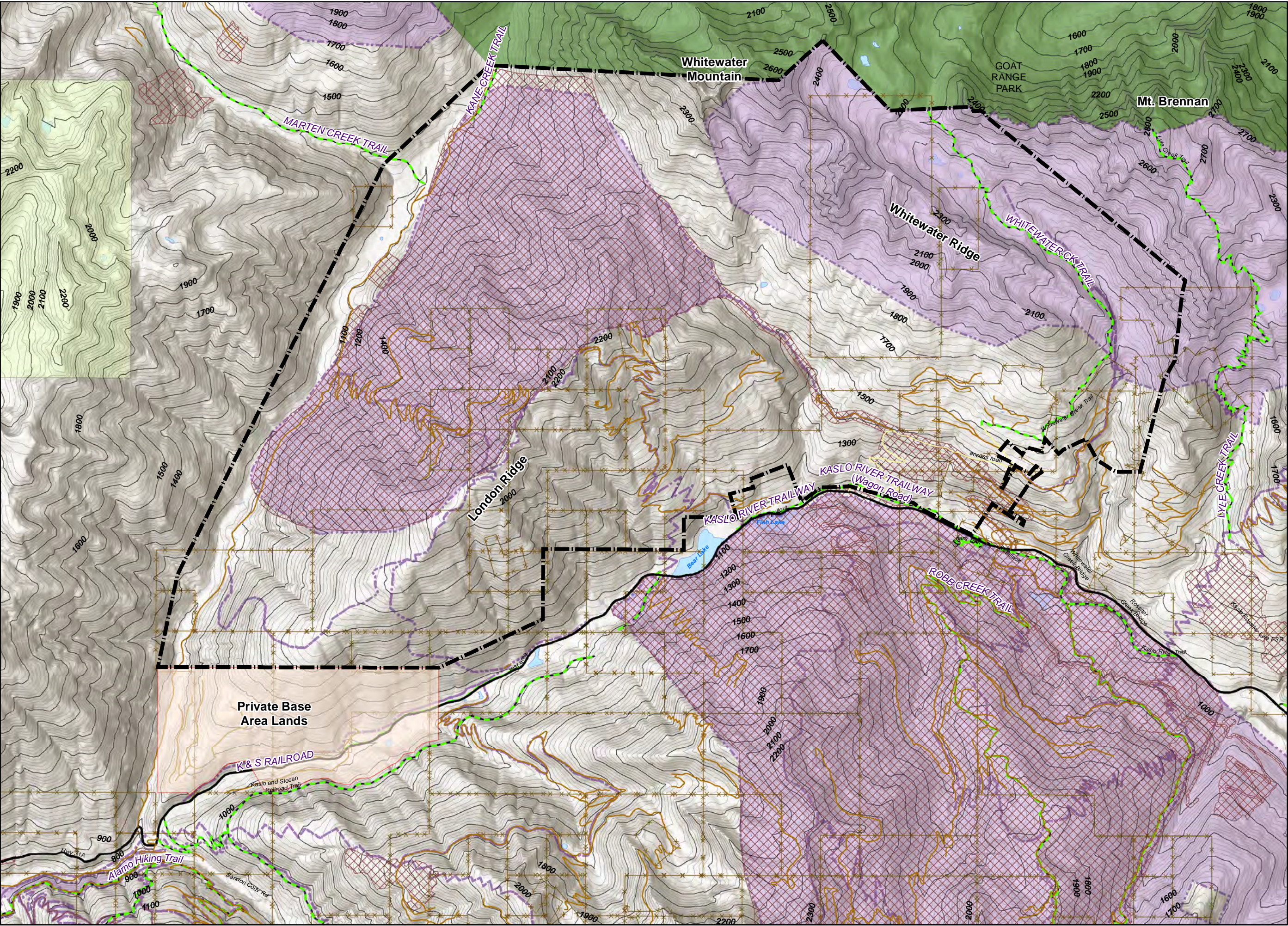
Holder	File Number	Tenure Subpurpose	Expiry Date
0792107 B.C. Ltd. (DBA Retallack Lodge)	4402411	Cat Ski	Nov. 1, 2040
Stellar Heli Skiing Ltd.	4404298	Heli Ski	Apr. 15, 2045
Mountain Trek Fitness Retreat & Health Spa Ltd.	4403389	Guided Nature Viewing	Apr. 3, 2040

From experience in the proposed study area, it is our understanding that Retallack Lodge has never used the parcel of their tenure that overlaps with the proposed development (north slopes of London Ridge). This results from the inability of the Retallack operation to access the area with their snowcats due to the presence of private property, the need to cross Highway 31A, and physical challenges of ascending Goat Creek canyon. As such, the land remains idle from a commercial recreation perspective.

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Legend

- Proposed Zincton EOI
- Roads**
 - Highways
 - Rec Roads
 - Unclassified Roads
 - Streams
- Mining Tenure Areas
- Active Recreation Trail Features
- Forest Tenure Cutblocks 2019
- Commercial Recreation Tenure
- Private Base Area Lands
- Recreation Areas**
 - Interpretative Forest
 - Recreation Reserve
 - Recreation Site
 - Recreation Trail
 - Parks and Protected Areas

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Tenure and
Administrative Areas

Figure 2-2

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The current level of use of the northeast slopes of Whitewater Ridge by Stellar Heli Skiing Ltd. is unclear, but given the size of this commercial recreation operator (maximum 2 helicopters at one time) in relation to the size of their tenure (83,000 ha), it is unlikely that the area is utilized more than a few days in a winter season. Further, it should be noted that as of October 2019, the listed ski runs on the Stellar Heli Skiing website only include 1 ski run that overlaps with the proposed study area⁵ (see “whit3water” run), suggesting that the area sees little use. Given the size of the tenure, the size of the operation, and the fact that only 1 ski run would be removed, it is safe to suggest that the negative impact to the existing operation will be minimal to nil.

Finally, Zincton could operate alongside the existing Guided Nature Viewing operation as the overlap with the proposed terrain is minimal and the activity does not conflict with backcountry recreation. There may also be opportunities to integrate programming and the guest experiences offered. This will be explored in the subsequent planning process.

As such, in our opinion Zincton represents the highest and best use of the subject Crown lands. The development of lift-accessed backcountry skiing and mountain biking will see this terrain utilized every day throughout the winter and summer season, as opposed to a few days of use or none at all, as is currently the case. Further, the on-mountain and base area development needed to realize the vision for Zincton at buildout represents an investment cautiously estimated at \$300 million (CAD), not accounting for the ongoing employment opportunities and multiplier effects through the local communities.

Additionally, the experience being offered by Zincton is one that complements those being offered by local commercial recreation operators. The addition of the proposed recreation activities and base area development can only enhance the reputation of the area within the skier and recreationalist marketplace, which will improve the economic conditions for all operators and communities. The potential loss that may be realized by the existing commercial recreation operators is relatively minimal when contrasted to the potential benefits that could be realized by the commercial recreation operators, local communities, and the Province through the development of Zincton.

2.5.2 Land Ownership

As noted, the lands proposed for the Mountain Village base area are within private lands owned by the proponent. The proposed EOI area avoids lands with existing developments, such as residential housing, commercial, or industrial buildings. Review of the Parcel Map BC database maintained by BC Land Title & Survey indicates that what owned land exists in the EOI area is related to mining interests or does not have a stated purpose (Table 2-3).

Table 2-3. Parcel Ownership within EOI area

PIN	PID	Ownership	Parcel Kind
9587720	24636517	Private	Mineral Claim
0	16720539	Crown Provincial	No Data
8831740	24302180	Crown Provincial	Mineral Claim
8752560	24635880	Private	Mineral Claim
9005900	17004918	Crown Provincial	Mineral Claim
0	16721578	Crown Provincial	No Data

⁵ Stellar Heli Skiing Ltd. (2019). *Davis/Rossiter Zone*. Retrieved: <https://stellarheliskiing.com/terrain/zone-b-davis-rossiter>

8831610	24302171	Crown Provincial	Mineral Claim
0	16986547	Crown Provincial	No Data
0	18067115	Crown Provincial	No Data
0	16747241	Crown Provincial	No Data
0	16960033	Crown Provincial	No Data
8831580	24302155	Crown Provincial	No Data
9005870	17004900	Crown Provincial	Mineral Claim
9244560	16765788	Crown Provincial	Mineral Claim
0	16720474	Crown Provincial	No Data
9005740	17004896	Crown Provincial	Mineral Claim
0	16740726	Crown Provincial	No Data
8831870	24302198	Crown Provincial	Mineral Claim
8738890	24635898	Crown Provincial	Mineral Claim
8738920	24635901	Crown Provincial	Mineral Claim

2.5.3 Public Recreation

The current EOI study area overlaps with 4 active recreation lines (i.e. trails) contained within the Provincial Recreation Lines dataset (Table 2-3 and Figure 2-4). There are no Recreation Sites within the study area.

Table 2-3. Overlapping Recreation Lines

Name	Forest File ID
Kane Creek Trail	REC5230
Marten Creek Trail	REC2440
Whitewater Creek Trail	REC2168
Kaslo River Trailway	REC6115

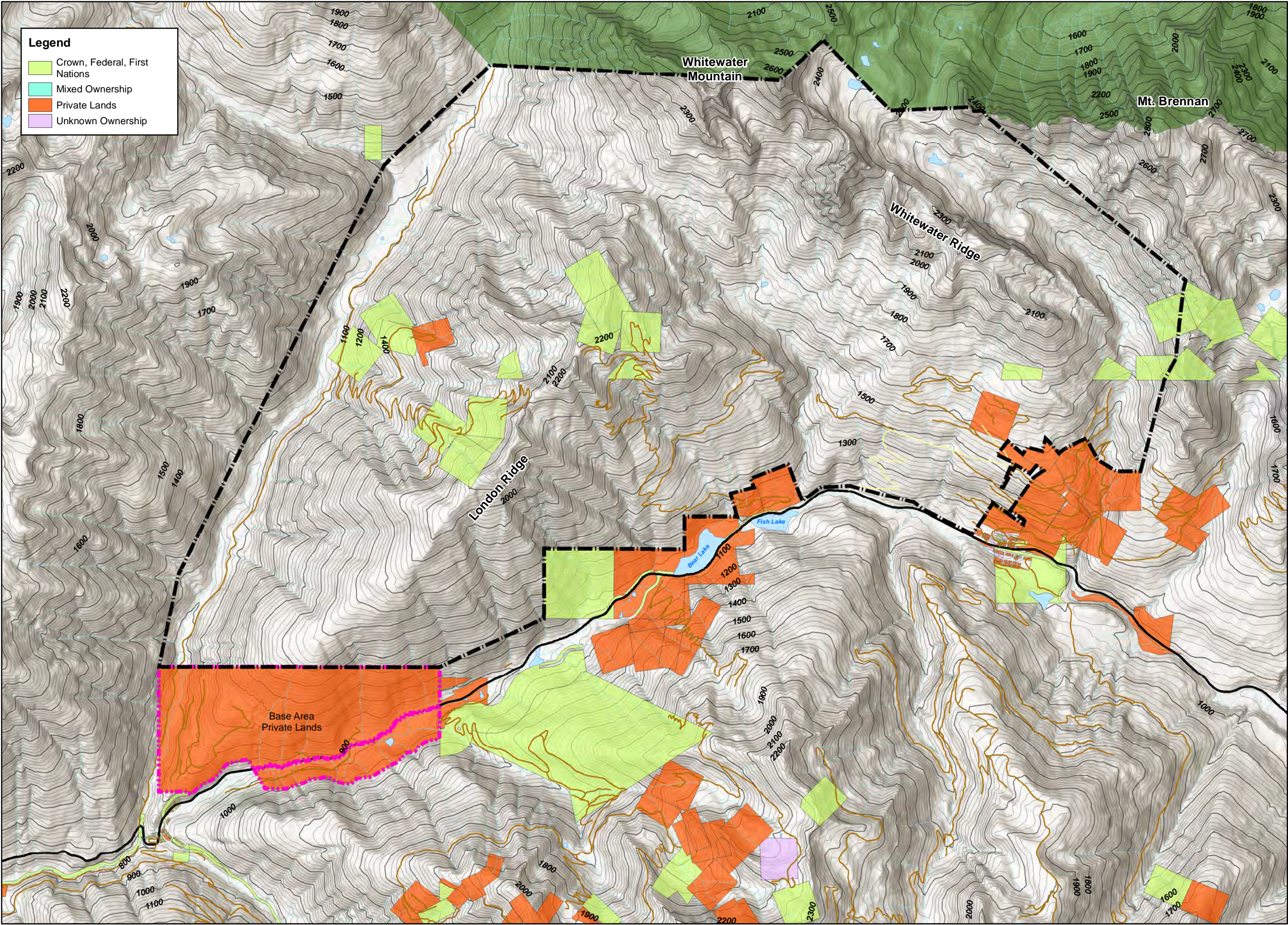
Of these, only the Whitewater Creek Trail would be impacted by the development of Zincton. The others are located near the boundary of the EOI study area, at lower elevations away from the lifts, runs/trails, and staging areas. Throughout development and operation, Zincton will ensure there is continued public access to these trails.

Beyond official recreation sites and trails, review of data from the popular fitness tracking app Strava found no segments (i.e. defined routes) within the EOI study area. However, the Strava Global Heat Map indicates that the Whitewater Creek Trail is often used by hikers/runners during the summer and used infrequently during the winter season for snow sports⁶. It is anticipated that summer use of the Whitewater Creek Trail would be largely unaffected.

While a search of Provincial and public data found no records of active backcountry skiing in the EOI area, decades of experience in the area and published guidebooks⁷ indicate that the London Ridge/Goat Range is actively used by backcountry skiers and tourers. While some of these users will likely be displaced, preferring a primitive backcountry ski experience, the intent is for Zincton to cater to and welcome these existing users, offering the same great terrain with improved access, less effort, and improved by base area skier services.

⁶ Strava (2019). *Global Heat Map*. Retrieved from: <https://www.strava.com/heatmap#11.98/-117.19893/50.04369/hot/all>

⁷ BackcountrySkiingCanada.com (2019). *London Ridge*. Retrieved from: <https://www.backcountryskiingcanada.com/Goat%20Range%20Selkirk%20Mountains#London>



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- Legend**
- Crown, Federal, First Nations
 - Mixed Ownership
 - Private Lands
 - Unknown Ownership
- Roads**
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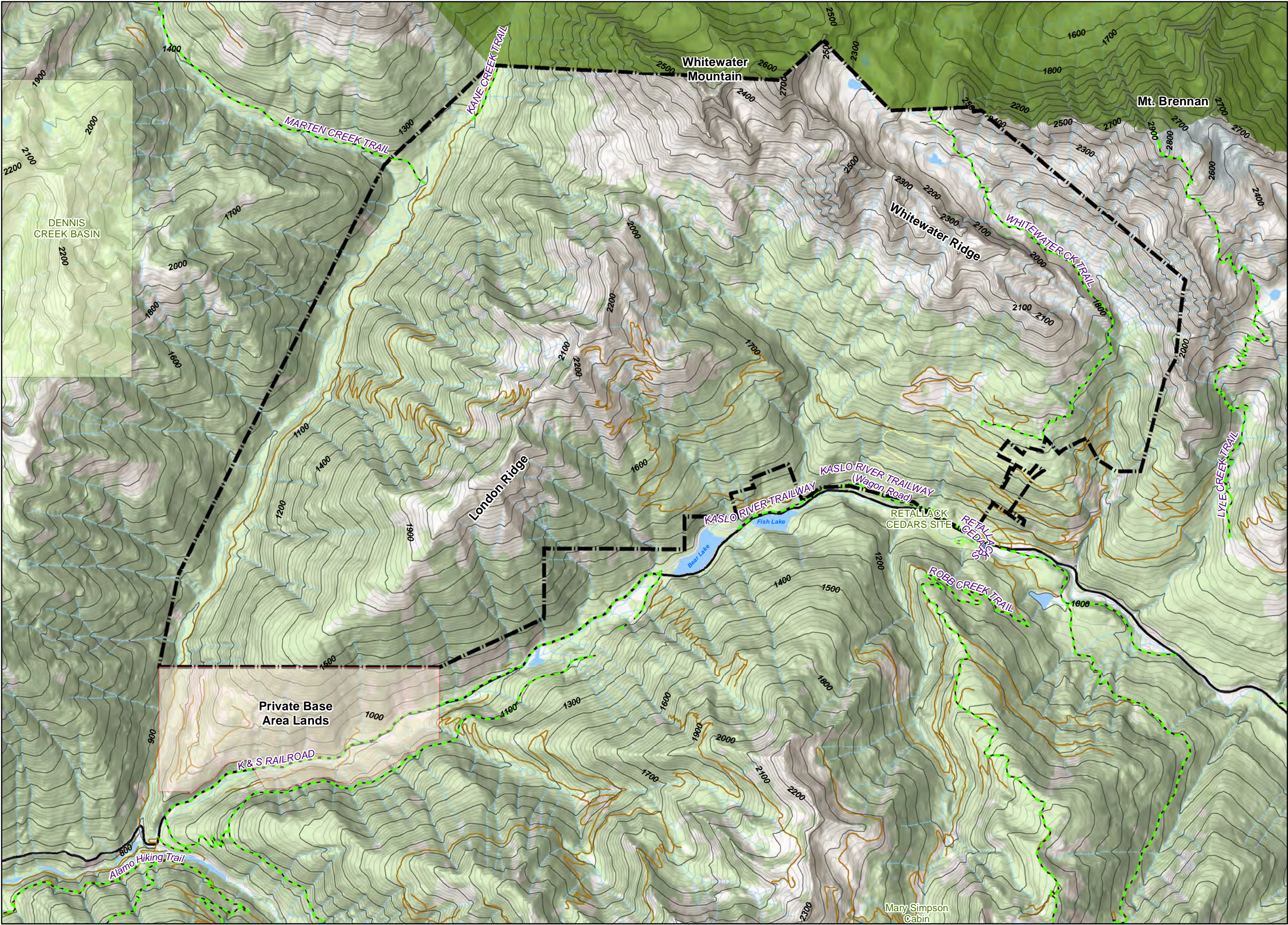
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Parcel
Ownership

Figure 2-3

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Zincton

Expression of Interest

2019

- Legend**
- Proposed Zincton EOI
 - Active Recreation Trail Features
 - Recreation Areas**
 - Interpretative Forest
 - Recreation Reserve
 - Recreation Site
 - Recreation Trail
 - Provincial Parks

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Recreation
Values

Figure 2-4

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2.5.4 Existing Resource Interests

Forestry

Forestry interests within the EOI study area are limited. The only active timber harvesting is along the Kane Creek FSR by Interfor Corporation, while Retallack Lodge and Stellar Heli Skiing Ltd. both have Occupant Licenses to Cut (Table 2-4 and Figure 2-5).

Table 2-4. Existing Resource Tenures

Holder	Type	Forest File ID
Interfor Corporation	Forest License	A20192
0792107 B.C. Ltd. (DBA Retallack Lodge)	Occupant License to Cut	L50661 (Active) L51456 (Pending)
Stellar Heli Skiing Ltd.	Occupant License to Cut	L50534

The forestry activity being carried out by Interfor Corporation will not interfere with the proposed ski facilities as they are in the valley bottom, away from potential ski terrain.

Mining

Review of the data coordinated by the BC Ministry of Energy, Mines and Petroleum Resources indicates that there are currently 34 Mineral Claims within the proposed study area, but no active Mining Leases.

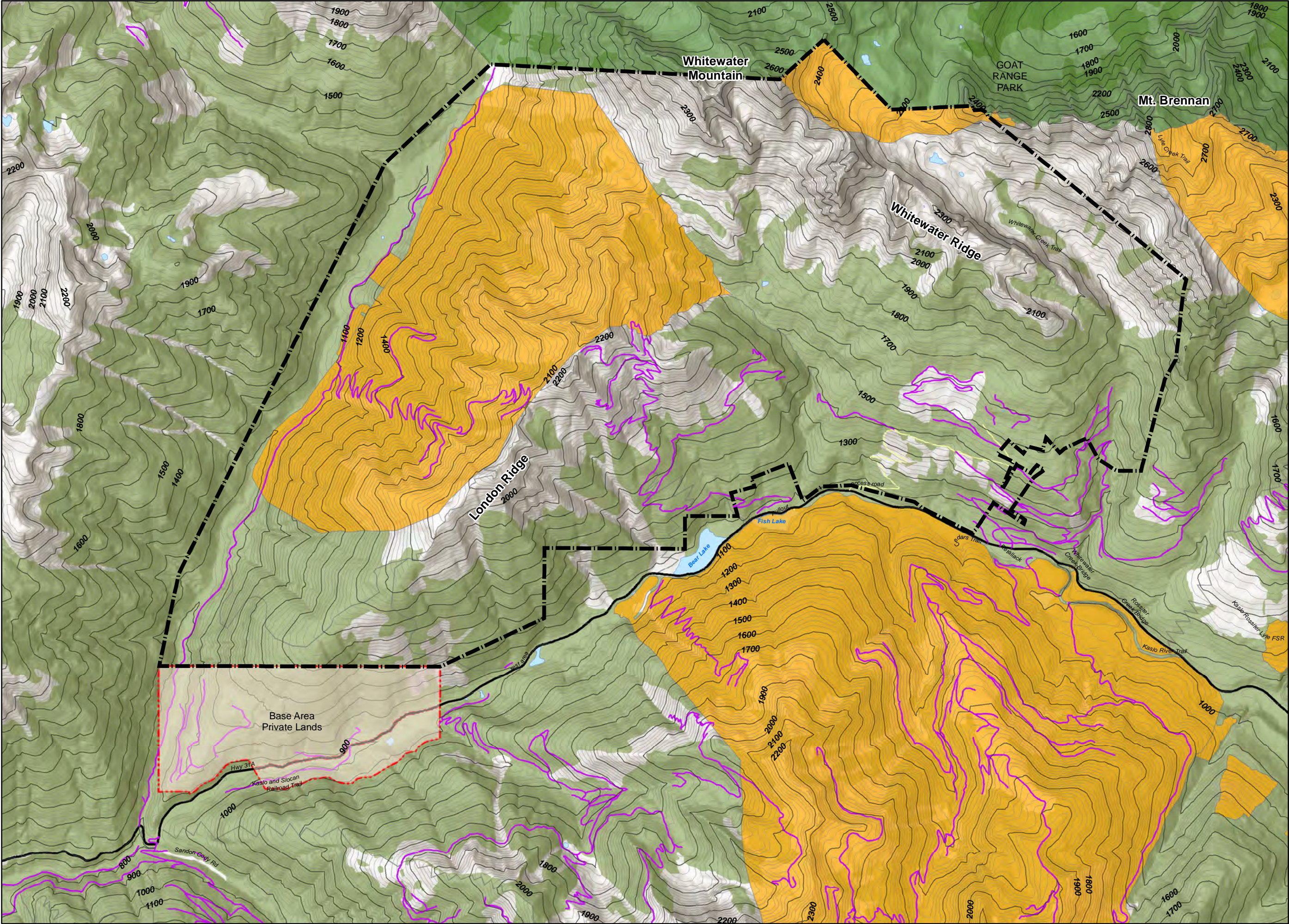
Of note, the lands immediately east of the proposed EOI study area and just north of Highway 31A are the site of the old Whitewater Mine (Minfile #: 082KSW033) and associated infrastructure. The mine was in operation from 1892 to 1980 but since closing has not undergone the required reclamation work to make the site suitable for development. Though initially explored as a potential base or staging area for Zincton, the costs to remediate the soils and make them safe for development was found to be too great for the proposed development to remain viable.

Water

The EOI study area contains 4 active water licenses (Table 2-5). There will be limited alteration to the landscape as part of Zincton leaving the watersheds and ground sources on which these licenses depend unaffected. Further, Zincton will secure its own water license(s) at the appropriate time and will work to ensure existing water rights are not infringed upon.

Table 2-5. Existing Water Licenses

Holder	License	Purpose	Source
Private Resident	C130398	Domestic	Cindy Spring
Private Resident	C123132	Power - Domestic	Murray Creek
Private Resident	C130407	Domestic	Murray Creek
Ministry of Transportation & Infrastructure	C047282	Commercial Enterprise: Enterprise	Goat Creek



Zincton

Expression of Interest

2019

Legend

Roads

- Highways
- Rec Roads
- Unclassified Roads
- Streams
- Parks and Protected Areas
- Existing Vegetation

Forest Tenures and Authorizations

- ACTIVE
- PENDING

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Active Forestry and Forestry Roads

Figure 2-5

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3 PRELIMINARY SITE INVENTORY AND ANALYSIS

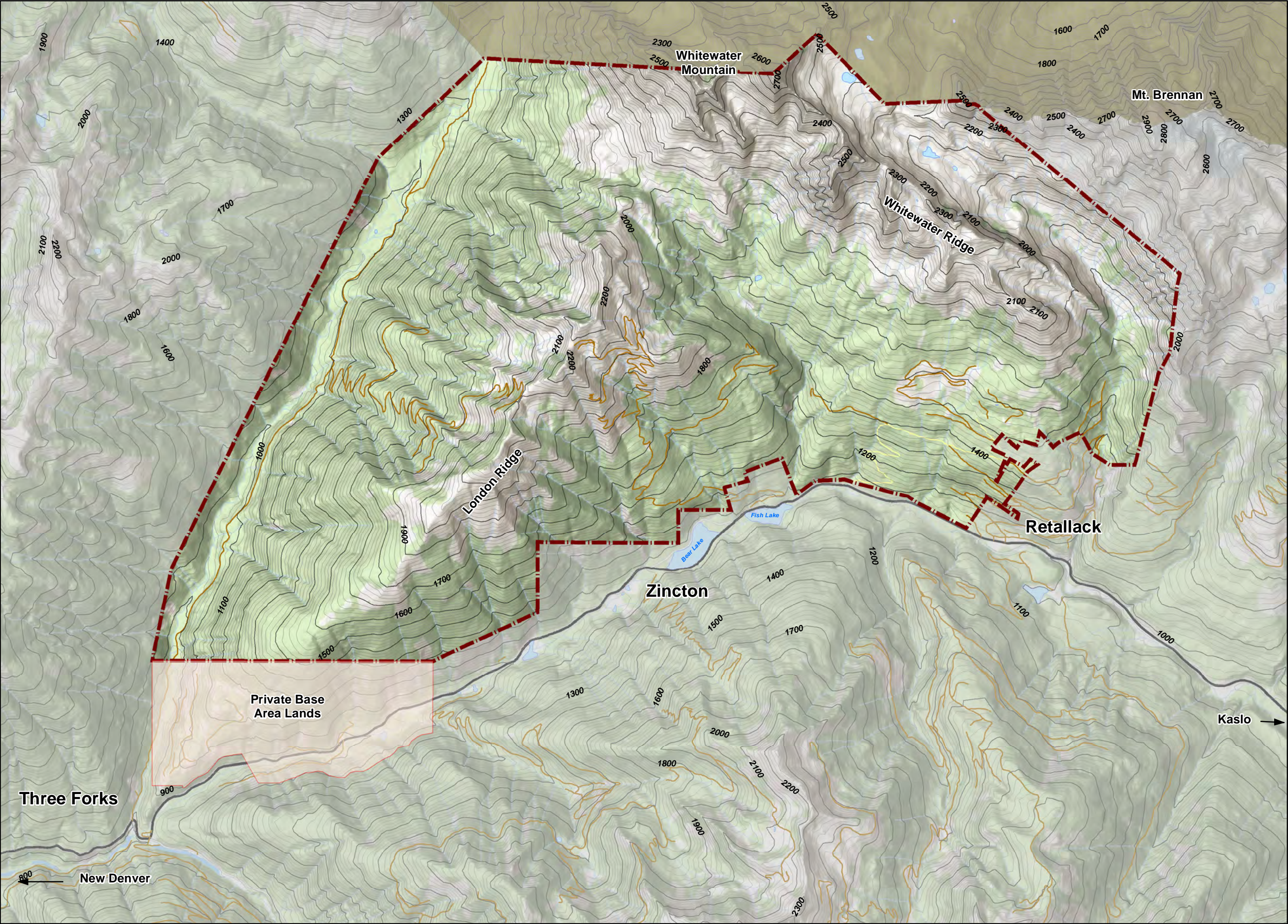
3.1 Introduction

To initiate the planning exercise, BHA conducted a preliminary site inventory and analyses of the mountain terrain along London and Whitewater Ridges. The initial study area is loosely defined by Kane Creek in the northwest, Whitewater Creek in the northeast, and Highway 31A in the south (Fig. 3-1).

BHA completed analyses of the physical realities of the study area with regards to slope, elevation, and aspect as it relates to all-season recreation. The analyses resulted in a series of maps that are presented and discussed below. The insight provided from this GIS analysis combined with historic weather data collected from Provincial data portals culminated in an understanding of the study area's capability to physically support a diverse mix of all-season recreation opportunities.

Based on the preliminary analyses, the study area has the potential to provide exceptional winter and summer recreation opportunities, and offer easy access from regional population centres, ultimately creating the sought-after high-quality recreation experience.

Through subsequent planning stages, the existing concept for Zincton will act as a foundation from which a preferred concept will ultimately emerge. Refinements to the existing concept will be shaped by updated spatial data, market and industry trends, and current ski area policy and regulations.




Zincton

Expression of Interest

2019

Legend

 Proposed Zincton EOI

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EOI Study Area

Figure 3-1

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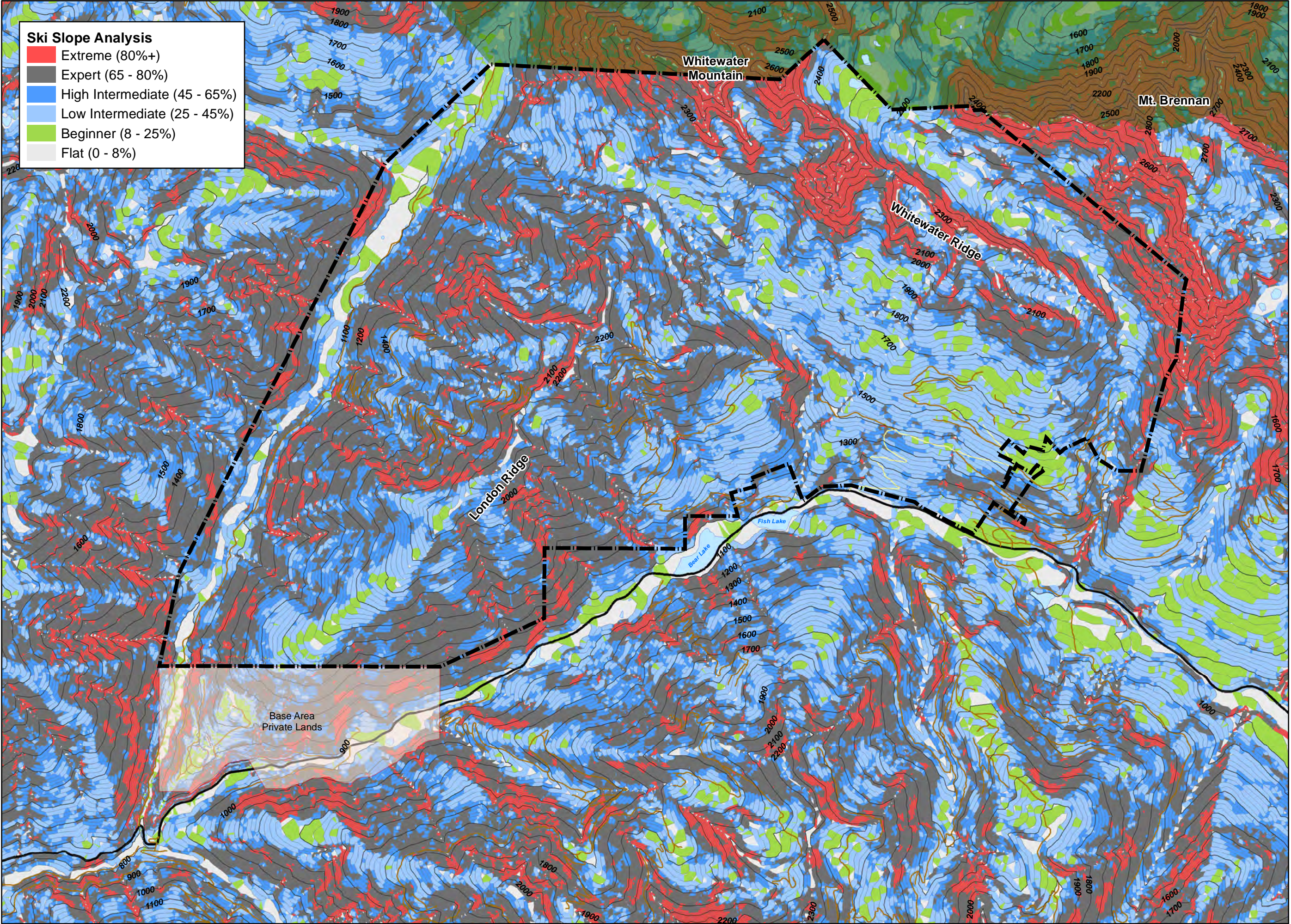
3.1.1 Ski Slope Analysis

The slope analysis divides the study area into a range of skiable gradients as they relate to each skier skill class. For Zincton, the skill classifications typically used for an all-season mountain resort have been tailored to fit the backcountry ski experience. As backcountry ski runs are not groomed and instead covered in powder or loose snow, skiers are able to descend steeper slopes than those in a typical all-season resort. The adjusted skill gradients are as follows:

Table 3-1. Ski Trail Classification by Gradient

Skill Class	Range of Acceptable Gradients (%)
Beginner	8 to 25
Low Intermediate	25 to 45
High Intermediate	45 to 65
Advanced	65 to 80
Expert	80+

Applying a slope analysis delineates the general character of the terrain, illustrating that the study area has large contiguous areas of intermediate and advanced terrain, with limited areas of beginner terrain (Fig. 3-2). The southwest facing slopes of Whitewater Ridge offer considerable potential to develop intermediate ski terrain, while the northwest facing slopes of London Ridge are evenly split between intermediate and advanced ski terrain, suggesting this area could be developed to aid in skier skill progression. Expert ski terrain is found in pockets below London Ridge or at the higher elevations of Whitewater Ridge. As the proposed ski experience is targeted at backcountry skiers, who can be classified as intermediate to expert skiers, the lack of a clear beginner area is not seen as a hinderance to development



Ski Slope Analysis

- Extreme (80%+)
- Expert (65 - 80%)
- High Intermediate (45 - 65%)
- Low Intermediate (25 - 45%)
- Beginner (8 - 25%)
- Flat (0 - 8%)

Zincton

Expression of Interest

2019

Legend

- Parks and Protected Areas
- Proposed Zincton EOI
- Base Area Private Lands
- Lakes

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Ski Slope
Analysis

Figure 3-2

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3.1.2 Mountain Bike Slope Analysis

A Mountain Bike Slope analysis utilizes the same approach as a Ski Slope Analysis but adjusted to reflect the suitability of the land for the development of mountain bike trails. The key differences are that the slope angle of the land is not the exclusive determinant of mountain bike trail difficulty and slope is not classified by mountain bike skill class. Mountain bike trail development can occur on any slope (within reason), but the difficulty and cost of building and maintaining the trails increases significantly with slope angle.

Generally, the terrain preferred for mountain bike trail development is also that “Preferred” for beginner and low intermediate ski terrain. As such, it is not surprising to see that the land with the greatest mountain bike trail potential is located on the southwest facing slopes of Whitewater Ridge (Fig. 3-2). Much of the rest of the EOI study area is less conducive to the development of mountain bike trails, identified as ‘Generally Avoid’ and ‘Avoid’. However, it should be noted that the relatively small spatial requirements for a singletrack mountain bike trail (0.3 – 0.5 m in width) and the low resolution of the spatial data used at this planning stage means that there are likely opportunities to develop trails in these less preferred areas. Development of trails in these areas is still possible and may contain terrain suitable for remarkable mountain biking experiences, but the costs and time associated with development will be greater. Moving forward the concepts for a mountain bike trail network will look at the identified “Preferred” and “Possible” slopes below Whitewater Ridge and trails along and below London Ridge that will connect the base staging area with the Backcountry Lodge. Ski outs/egress routes will likely double as mountain biking trails to serve this purpose. Regardless of location, trail development will mirror the ski run development approach, embracing a nature focused, backcountry-oriented, ‘pedal powered’ mountain bike experience.

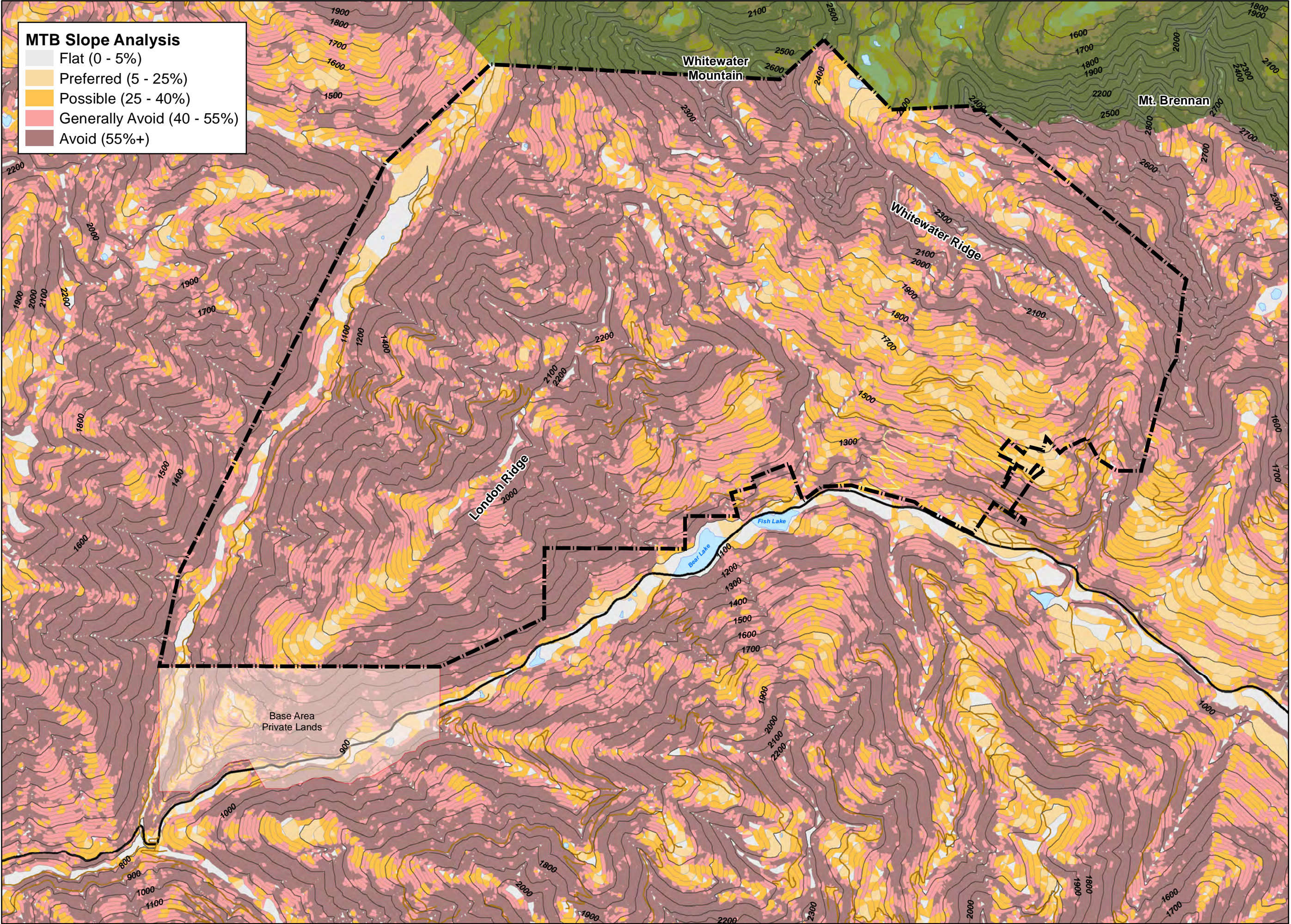
3.1.3 Elevation Analysis

An elevation analysis slices the topographic features of the study area into 100 metre increments, effectively illustrating the height and “flow” of the land. The study area is dominated by Whitewater Mountain (2,768 m), with Whitewater Ridge extending to the southeast and London Ridge extending to the southwest (Fig. 3-4). From these heights, the terrain in the study area descends approximately 1,700 m to the valleys below, the Village of Three Forks sitting at an elevation of approximately 800 m.

Relative to established ski resorts in the region, Zincton would offer the second largest skiable vertical behind Revelstoke Mountain Resort (Table 3-2). Further, most of the skiable terrain is located above 1,000 m, helping to ensure suitable snowfall and snowpack even in poor snow seasons (see Sec. 3.1.6)

Table 3-2. Resort Elevation and Skiable Vertical

Resort	Summit Elevation (m)	Skiable Vertical (m)
Zincton*	2,700	1,600
SilverStar	1,915	760
Big White	2,319	777
Whitewater	2,042	623
Revelstoke	2,225	1,713
Kimberley	1,982	751
Panorama	2,450	1,300
*Preliminary Analysis		



Zincton

Expression of Interest
2019

- Legend**
- Proposed Zincton EOI
 - Base Area Private Lands
 - Parks and Protected Areas
 - Lakes

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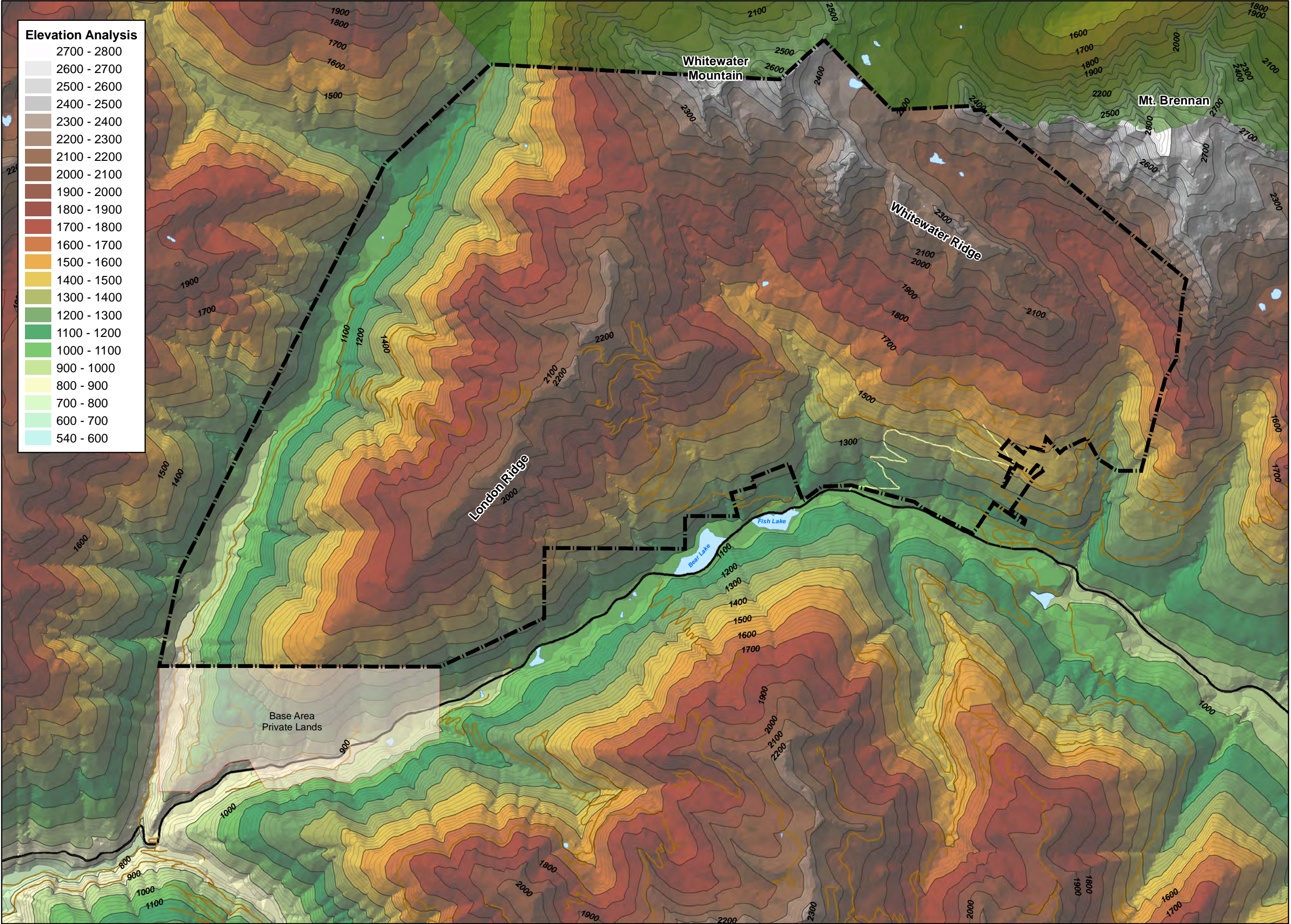
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MTB Slope
Analysis

Figure 3-3

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Elevation Analysis	
	2700 - 2800
	2600 - 2700
	2500 - 2600
	2400 - 2500
	2300 - 2400
	2200 - 2300
	2100 - 2200
	2000 - 2100
	1900 - 2000
	1800 - 1900
	1700 - 1800
	1600 - 1700
	1500 - 1600
	1400 - 1500
	1300 - 1400
	1200 - 1300
	1100 - 1200
	1000 - 1100
	900 - 1000
	800 - 900
	700 - 800
	600 - 700
	540 - 600

Zincton

Expression of Interest

2019

- Legend
- Proposed Zincton EOI
 - Base Area Private Lands
 - Parks and Protected Areas
 - Lakes

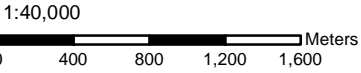
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Elevation Analysis

Figure 3-4

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3.1.4 Aspect Analysis

Analysis of slope aspect involves colour coding the topographic features of the study area to illustrate the orientation and geographic exposure with respect to the eight points of the compass. Receiving reduced direct sunlight, northern exposures are less susceptible to 'solar burn out', in which snow conditions degrade more rapidly and snow retention is reduced. These slopes are best for ski terrain development but are less desirable for base area or residential development due to the lack of natural light. In contrast, southern exposures have a higher risk of solar burn out but are sought after for base area development.

While there will be limited ski trail development, understanding a slope's potential level of solar exposure is still an important consideration when developing ski pods and lift alignments, and will also inform the proponent's growing knowledge of snowpack conditions and snow stability.

The aspect of the terrain within the EOI study area can be divided into two large areas, one of south and southwest facing slopes beneath Whitewater and London Ridge, and one of northwest and west facing slopes on the opposite side of London Ridge. Smaller pockets of north and northeast facing slopes are scattered across the study area.

The predominance of south and southwest facing slopes on Whitewater and London Ridge will inform any proposed glading there and ski terrain development more broadly. Planning and management of this terrain will have to account for the greater solar exposure and resulting increased probability of solar burn out. In contrast, the west and northwest facing slopes on London Ridge offer slopes protected from the sun throughout the day.

3.1.5 Base Area Slope Analysis

The potential for base area development (i.e. Lodge with skier services, accommodation and real estate, parking and staging) was assessed through a base area slope analysis. Like its on-mountain counterparts, a base area slope analysis classifies the land within the EOI study area based on its suitability for a range of development. While flatter and gentler slopes are best suited for intensive Village developments, they can also present challenges with drainage or contain environmentally sensitive ecosystems. Conversely, moderate slopes, while more challenging and costly to build on, provide opportunities for 'ski in/ski out' development and amazing views of the surrounding landscape often sought by destination guests. Beyond 40% land becomes too steep for any type of base area development. The base area slope analysis provides a foundation to optimize the arrangement, mix, and spatial relationships within a well-balanced base area.

The following table details the base area slope classifications:

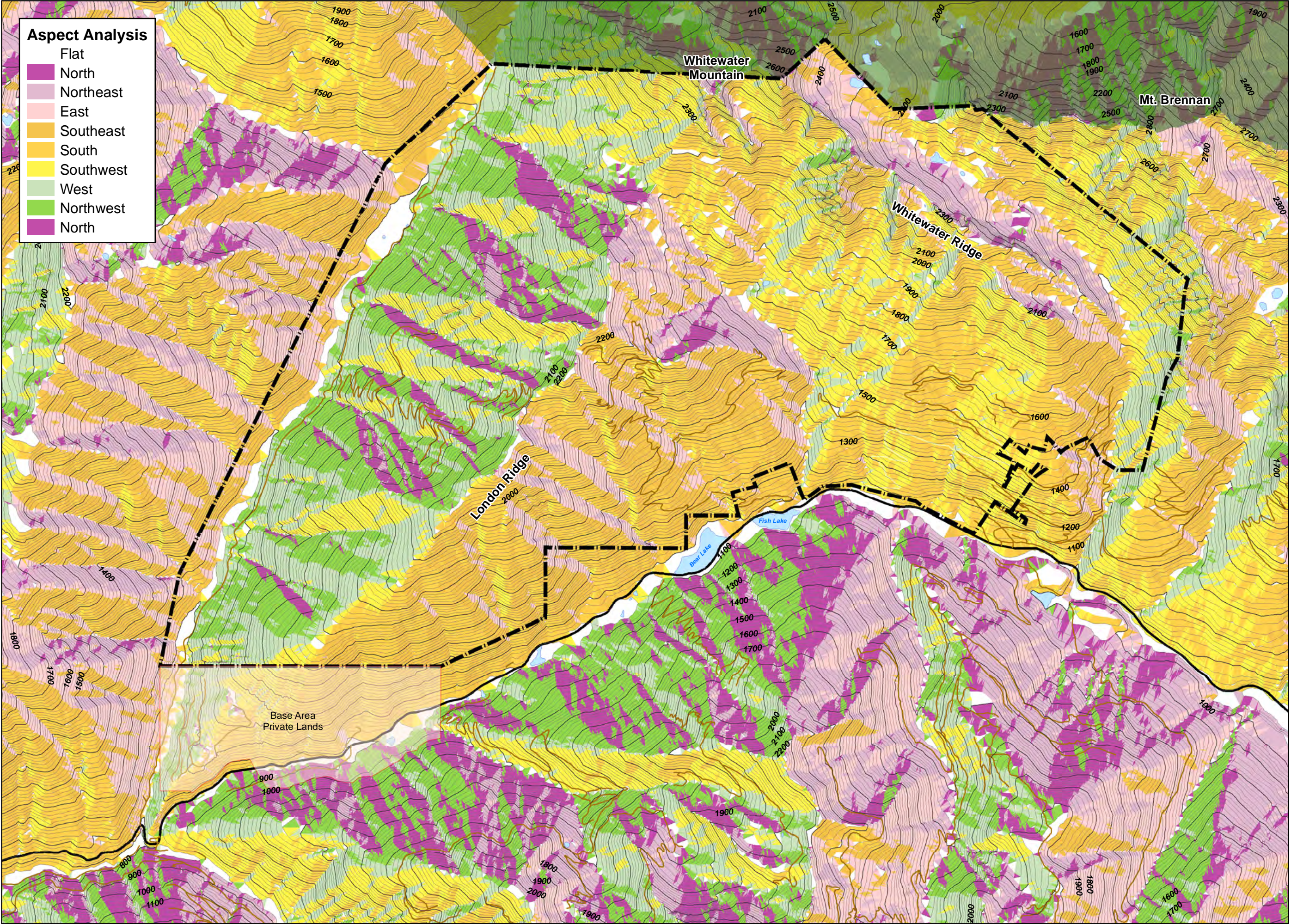
Table 3-3. Base Area Slope Analysis Gradient Classification

Category	Gradient (%)	Description
Suitable for All Construction Types	0 – 5	Ideal for all types of built development but limit the ski in/ski out potential and may have issues with drainage and be environmentally sensitive, adding to development challenges.
Acceptable for High Density	5 – 10	Have significant development potential. With minimal grading, these lands can be tied together into a contiguous development opportunity.
Maximum for High Density	10 – 20	Too steep for base area staging capabilities and high-density development, but still conducive to medium and low-density residential development as well as limited golf course considerations
Acceptable for Low Density	20 – 30	Challenging to medium-density development, but low-density single family and duplex type development are viable. Often provide ski in/ski out opportunities, unrestricted views, and good solar exposure.
Maximum for Low Density	30 – 40	Upper limit for low-density development without incurring access and development expenses that exceed economic viability. Benefits are unimpeded scenic views and excellent solar exposure.
Not Suitable	40+	Should be avoided due to the difficulties of access and the expense of building, unless special circumstances prevail.

As noted in Section 2, a Mountain Village is planned for private lands on the slopes above the Town of Three Forks. However, a Backcountry Lodge is envisioned for the slopes beneath Whitewater Ridge and the potential for future base area development is something that must be considered.

The EOI study area is limited in its base area potential, with most the terrain too steep for development. However, pockets of terrain with broad construction suitability exist in the valley bottom, along the southwest end of London Ridge, and the area above of the Town of Retallack. However, early investigation found this area to be a former mine site which had not undertaken the required reclamation work (see Sec 2.5.4). As such, the soils remain contaminated and would require significant costs to remediate before base area development could be pursued.

There are approximately a dozen sites suitable for a backcountry lodge beneath the southwest facing slopes of Whitewater Ridge. Given the vision for Zinton and resulting backcountry skiing orientation, on-mountain capacity is not expected to require significant base area built space. As such, while the potential for base area development appears limited it is understood to be sufficient to provide the needed skier services and meet guest expectations.



Zincton

Expression of Interest
2019

- Legend**
- Proposed Zincton
 - Base Area Private
 - Parks and Protected Areas
 - Lakes

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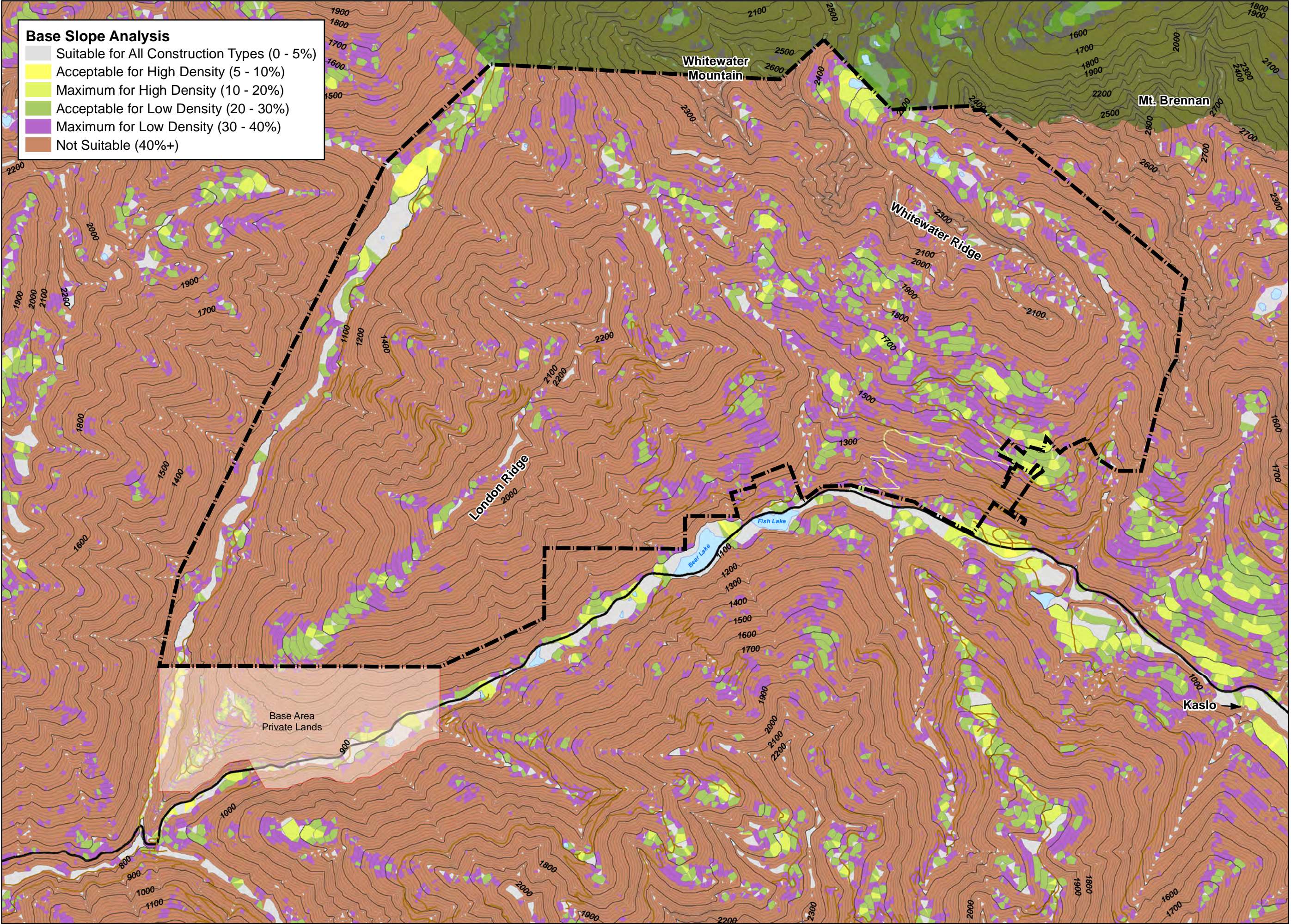
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Aspect
Analysis

Figure 3-5

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Base Slope Analysis

- Suitable for All Construction Types (0 - 5%)
- Acceptable for High Density (5 - 10%)
- Maximum for High Density (10 - 20%)
- Acceptable for Low Density (20 - 30%)
- Maximum for Low Density (30 - 40%)
- Not Suitable (40%+)

Zincton

Expression of Interest
2019

Legend

- Proposed Zincton
- Base Area Private
- Parks and Protected Areas
- Lakes

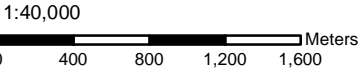
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Base Area Slope Analysis

Figure 3-6

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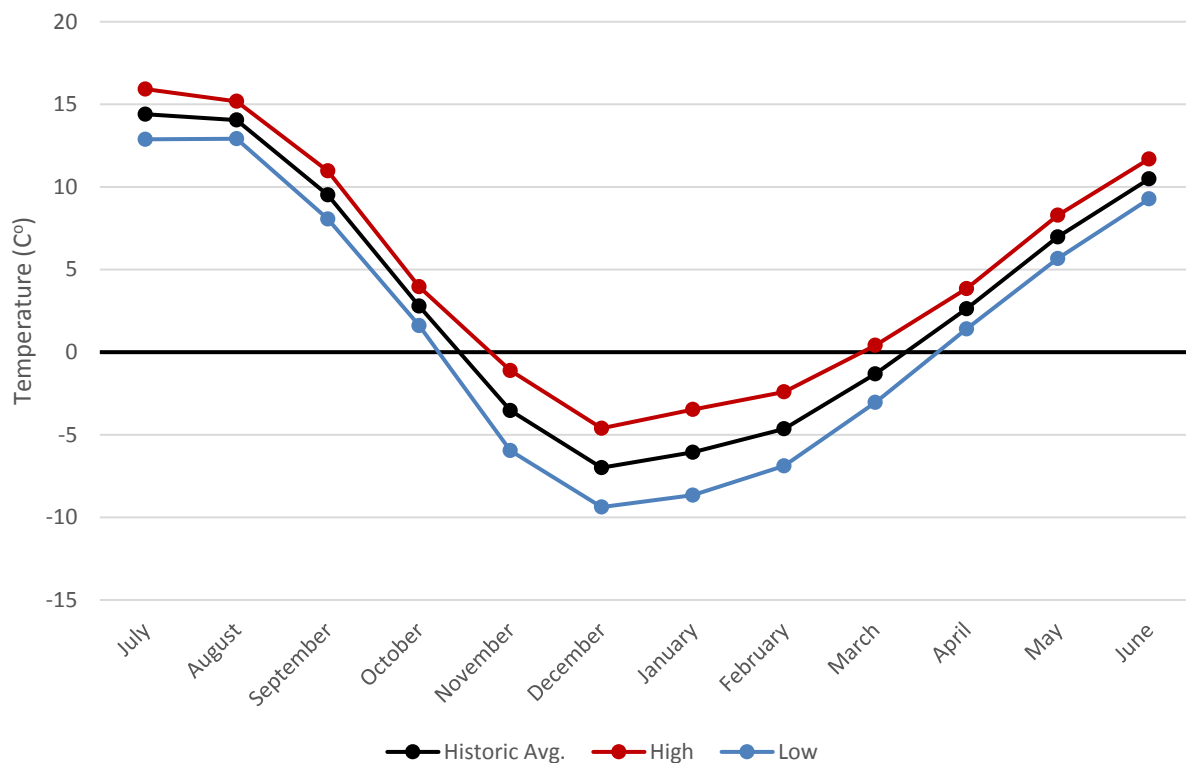
3.1.6 Climatological Analysis

To assess historic weather patterns in the study area and their implication for the proposed operation, BHA derived average temperature and snowfall data from historic weather records (1978 – 2018) from ClimateBC⁸ for a representative site within the ski area (50.032, -117.257, 1,594 m.a.s.l.). This was complemented by snowpack data retrieved from the BC Aquarius data portal for the Redfish Snow Station⁹, located approximately 40km south of the proposed study area at a similar elevation.

Temperature

BHA determined that the study area has a mean annual temperature of 3.2°C with seasonal averages ranging from -7.0°C in the winter to 14.4°C in the summer (Chart 3-1). Average winter temperatures (December to February) range from -9.3°C to -2.4°C, while average temperatures in the summer (June to August) range from 9.3°C to 15.9°C.

Chart 3-1. Historic Average Monthly Temperature (C°)



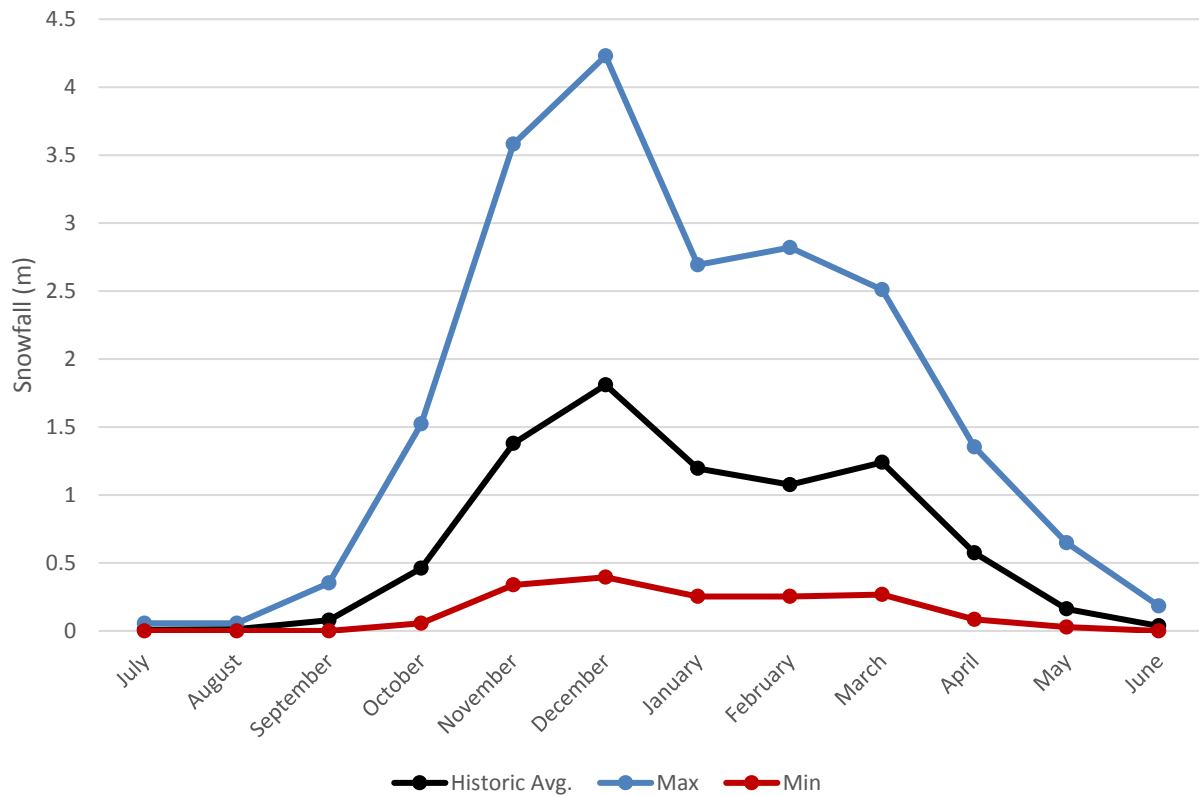
⁸ UBC Centre for Forest Conservation Genetics (2019). *ClimateBC_Map: An Interactive Platform for Data Visualization and Analysis*. Available at: http://www.climatewna.com/ClimateBC_Map.aspx

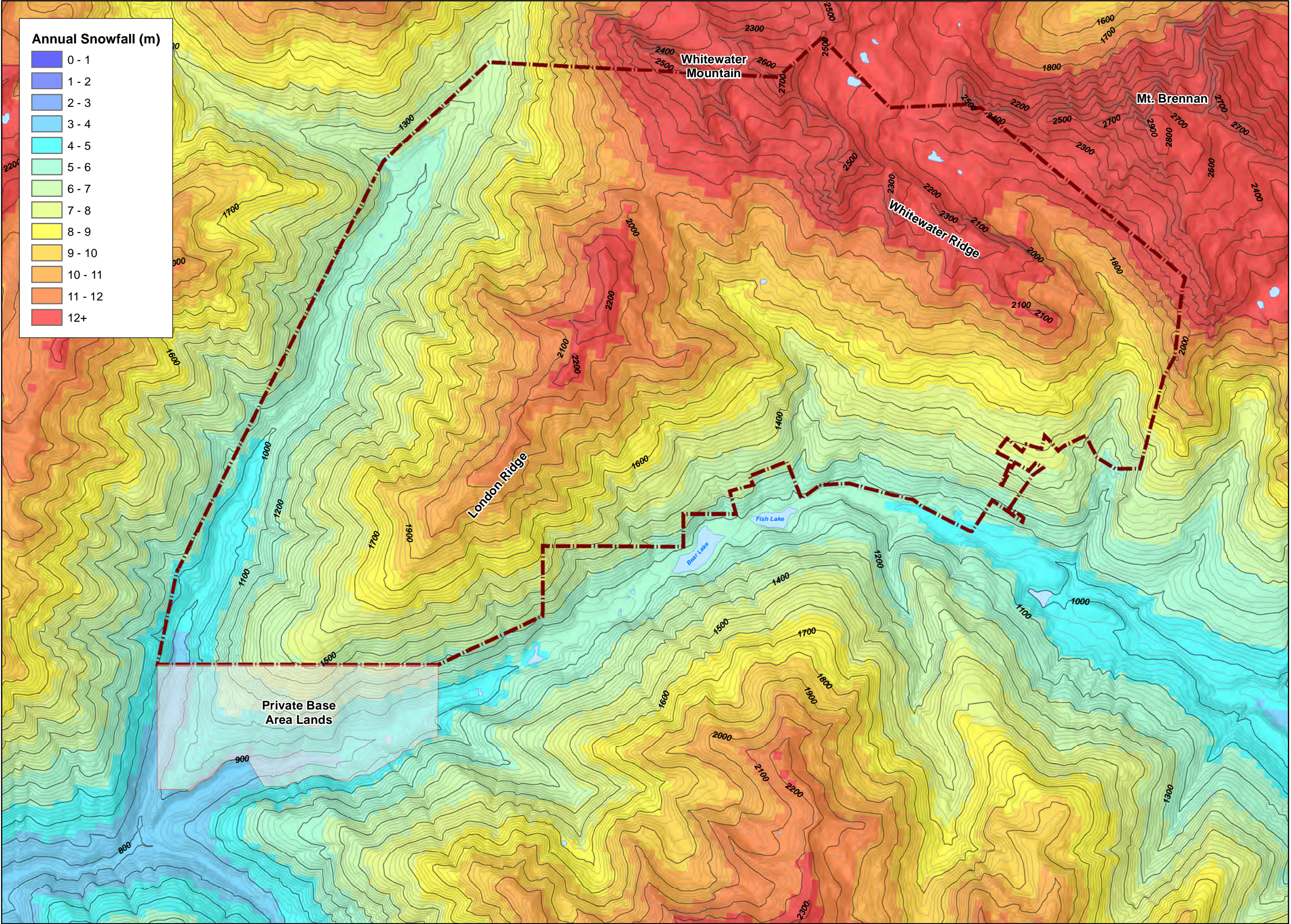
⁹ Province of British Columbia (2019). *Aquarius Data Portal*. Available at: <http://aqrt.nrs.gov.bc.ca/>

Snowfall

Total annual snowfall at the proposed site averages over 8 m while average monthly snowfall November through March is approximately 1.3 m. However, this can vary considerably as indicated by the Max and Min records on Chart 3-2. These represent the highest and lowest recorded monthly snowfalls for the 1978 – 2018 period. However, it should be noted that the historically low months did not occur in the same year, and that total annual snowfall have never been less than 5.1 m. Average annual snowfall for the area derived from ClimateBC data is presented in Figure 3-7.

Chart 3-2. Historic Average Monthly Snowfall (cm)





Zincton

Expression of Interest

2019

Legend

Proposed Zincton EOI

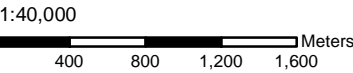
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Annual Snowfall Analysis

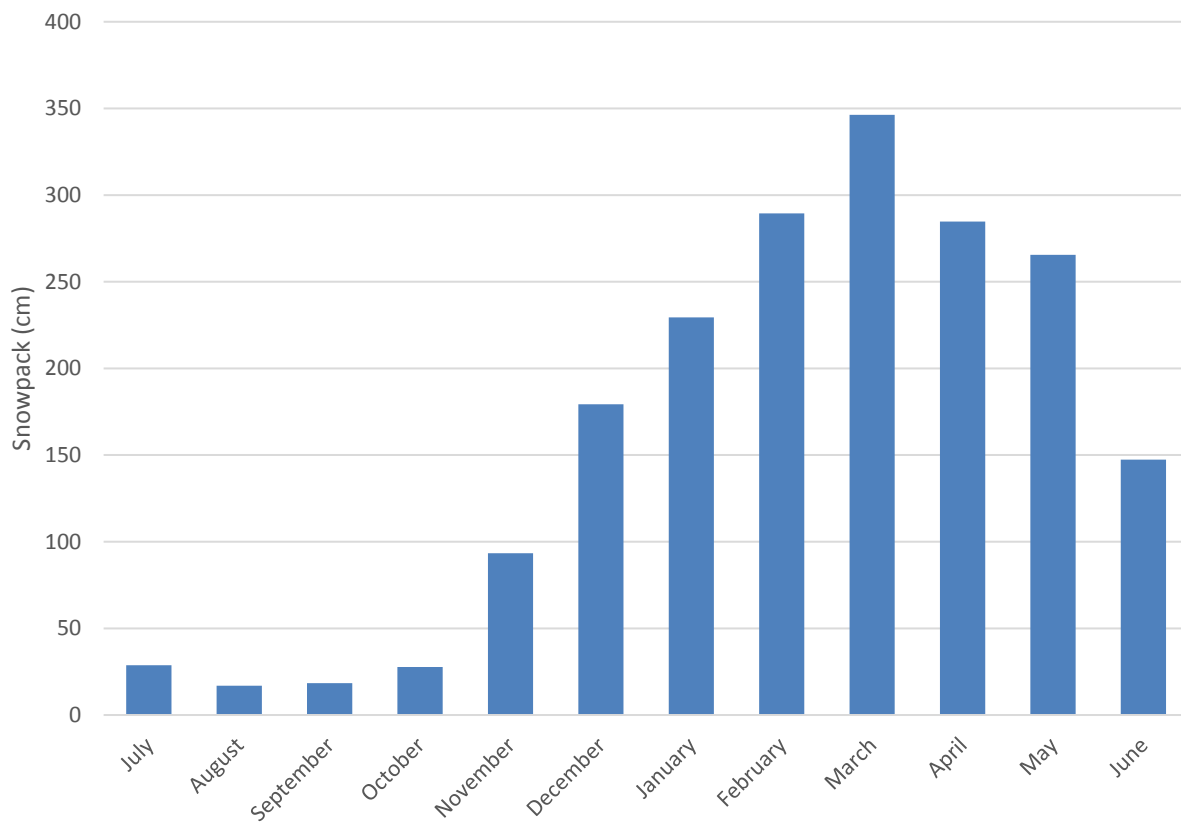
Figure 3-7

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Snowpack

To complement snowfall records, BHA retrieved historic snowpack data from records hosted by the Aquarius data portal for the Redfish Snow Station (Chart 3-3). Recognizing that Zincton will not prepare the landscape to extend the ski season (e.g. summer grooming), the records suggest that average snowpack at the study site is suitable for backcountry skiing from late November to late May (approx. 180 days), with an average snowpack of 266 cm during this period.

Chart 3-3. Historic Average Monthly Snowpack (cm)



3.1.7 Terrain Capacity Analysis

Collectively, the analyses of the physical and climatological realities of the study area indicate that Zincton has significant potential as an all-season recreation destination.

The study area contains large areas of intermediate to expert terrain and significant skiable vertical, with much of the terrain oriented northward, shielded it from solar exposure. Further, historic temperature and snowfall patterns confirm what many locals have known for years - that the area sees considerable snowfall throughout winter and into spring. Further, the relatively cool summer temperatures are amenable to strenuous outdoor activity, such as hiking and mountain biking, giving support to the vision for an all-season recreation destination.

3.2 Existing Environmental Conditions

3.2.1 Overview

To understand the environmental values in the study area, BHA consulted Provincial datasets (DataBC) and online tools (i.e. Habitat Wizard, CDC iMap) pertaining to vegetation and forest cover, wildlife, wildlife habitat, species at risk, and the potential visual impact of the proposed development. The results of this analysis is illustrated in Figure 3-7 and 3-8.

3.2.2 Vegetation

The study area is dominated by the Engelmann Spruce Subalpine Fir biogeoclimatic zone (BEC) which occupies the higher elevations. The lower elevations in the valleys are comprised of the Interior Cedar - Hemlock BEC zone (Table 3-4).

Table 3-4. Biogeoclimatic Zones within EOI Study Area

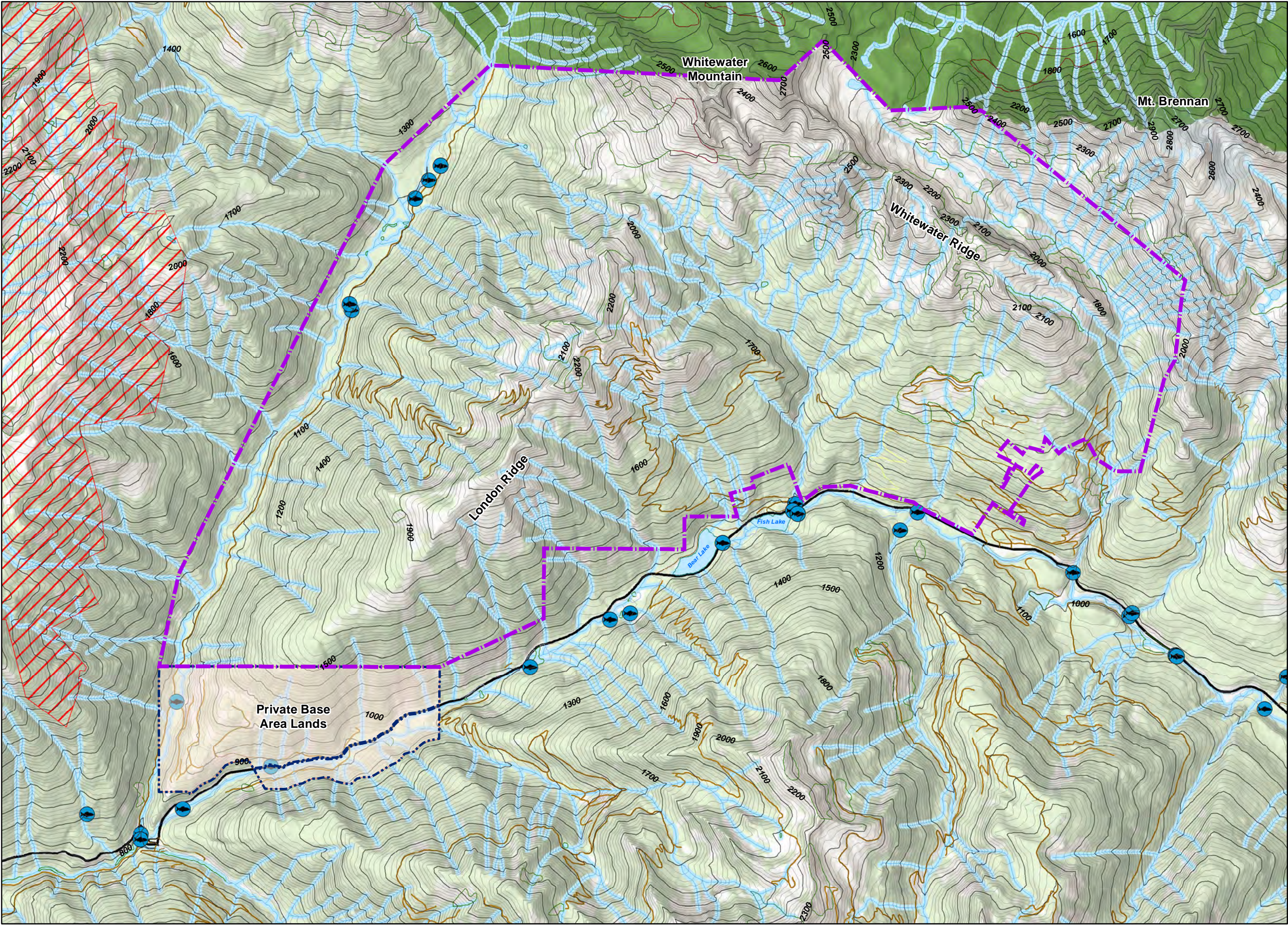
Name	Zone	Subzone	Variant
Interior Cedar - Hemlock	ICH	mw	2
Engelmann Spruce Subalpine Fir	ESSF	wc	1
Engelmann Spruce Subalpine Fir	ESSF	wc	4
Engelmann Spruce Subalpine Fir	ESSF	wcp	-
Engelmann Spruce Subalpine Fir	ESSF	wcw	-

Analysis of the Province's Vegetation Resources Inventory dataset indicates that the forests in the study area are dominated by Alpine fir, Aspen, and Engelmann spruce with most stands in the area falling between 50 and 140 years of age. Applying the Province's definition of Old-Growth forests for Engelmann spruce (>140 yrs)¹⁰, the study area contains small pockets of old growth forests on the north face of London Ridge adjacent to McEllis and O.K. Creek, the southwest face of Whitewater Ridge, and the southeast end of Whitewater Ridge. No Old-Growth Management Areas are in or adjacent to the study area.

Alpine fir (*Abies lasiocarpa*) dominate London Ridge and Whitewater Ridge and the higher elevations within the study area. Lower down, the slopes of London Ridge are predominantly Aspen (*Populus tremuloides*), while pockets of Engelmann spruce (*Picea engelmannii*) populate the lower, south facing slopes of Whitewater Ridge and north facing slopes of London Ridge. The town of Retallack is surrounded by Interior Douglas-fir (*P. menziesii* var. *glauca*), and small stands of Western hemlock (*Tsuga heterophylla*) and Black cottonwood (*P. b. ssp. Trichocarpa*) line areas of the valley bottom.

A single non-legal Old Growth Management Area (ProvID: DSE_4090) exists adjacent to Kane Creek. However, this lies at the edge of the study area and at a distance from the proposed recreation activities.

¹⁰ Old Growth. Province of British Columbia. Retrieved from <https://www.for.gov.bc.ca/hfd/pubs/docs/mr/mr112/page14.html>



Zincton

Expression of Interest
2019

- Legend**
- Proposed Zincton EOI
 - Fish Observation
 - Ungulate Winter Range
 - Highways
 - Rec Roads
 - Unclassified Roads
 - Streams
 - Riparian Buffer (30m)
 - Parks and Protected Areas
 - Private Base Area Lands

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Environmental Values Analysis

Figure 3-8

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Species at Risk

Lance-leaved figwort (*Scrophularia lanceolata*), a Blue-listed species, was observed in proximity to Whitewater Creek, near an old mining building on New Denver/Kaslo Road. However, this record dates to 1975 and conditions may have changed in the 45 years since this observation was made. Regardless, Zincton will observe, identify, and report any occurrence of species at risk within the proposed study area.

3.2.3 Aquatic

The waterbodies and creeks in the study area were assessed for fish occurrence using the Province's Habitat Wizard tool¹¹. The creeks that run to the north of the study area (i.e. Kane and Whitewater Creeks) contain Rainbow Trout, while the Kaslo River, Fish Lake, Bear Lake, and associated creeks that run along the southern extent of the study area have been known to host Rainbow Trout, Bull Trout, Kokanee, Brook Trout, and Westslope (Yellowstone) Cutthroat Trout. None of these species is listed in Provincial or Federal endangered species regulations.

3.2.4 Wildlife

Caribou and Other Ungulates

The land on which Zincton is proposed is listed as Extirpated for Mountain Caribou according to the Province's Caribou Distribution dataset. However, the southern extent of terrain suitable for the Southern Mountain Population of Mountain Caribou extends to within 1.5 km of the EOI study area and the range of the Nakusp Herd extends to 12.5 km northwest of the EOI study area. While the proposed development is not anticipated to directly or indirectly impact Mountain Caribou or Mountain Caribou habitat, Zincton will work to ensure the proposed development does not have any negative impacts on Mountain Caribou.

No instances of habitat for other ungulates (i.e. Moose, Mountain Goat, Mule Deer, etc.) were found in proximity to the proposed EOI study area.

Species at Risk

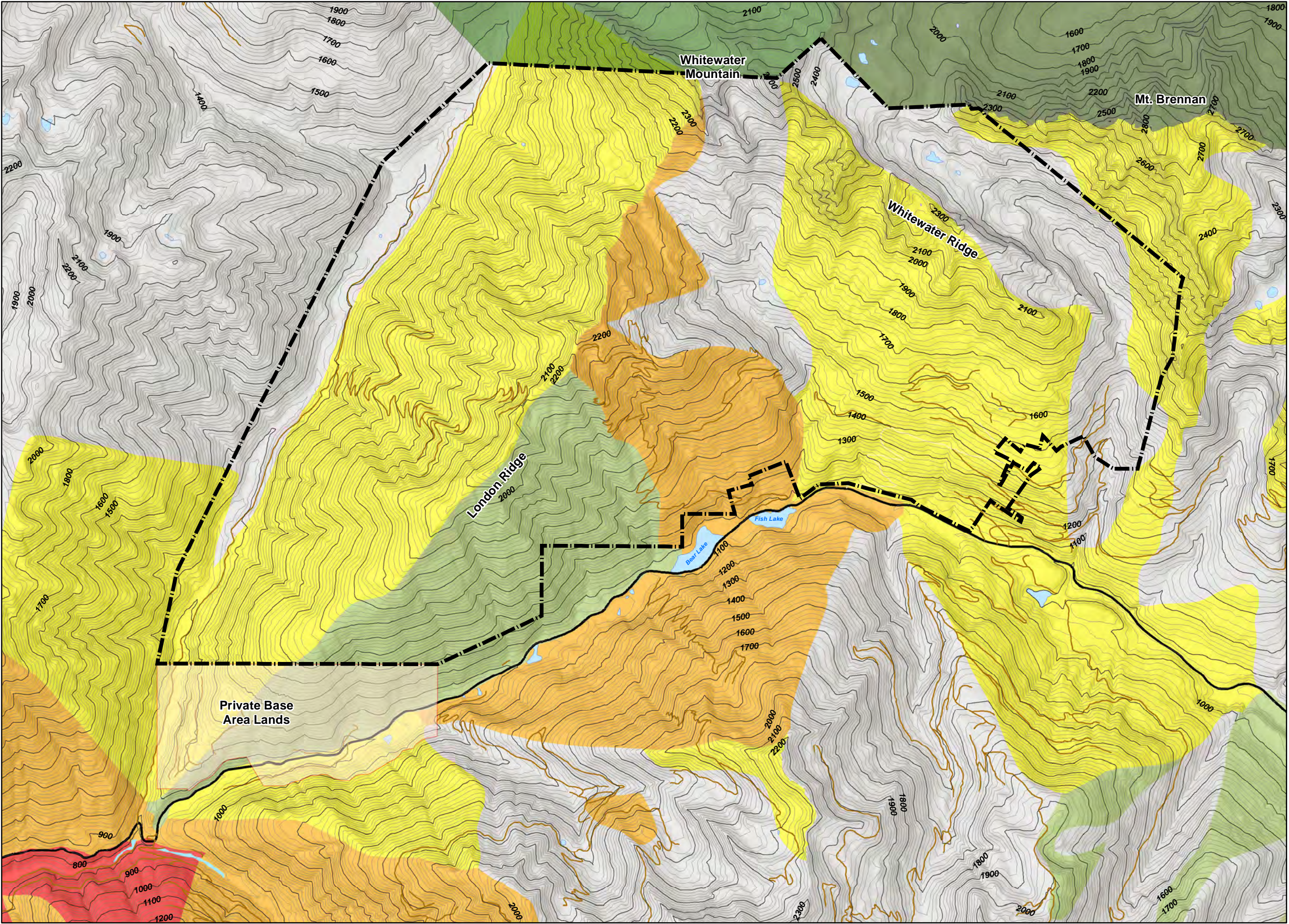
Records indicate that a host of dragonflies have been observed in the area of Bear Lake, some of which have been Yellow-listed (S4 and S5 Conservation Status Rank) by the Province. While there is some cause for concern for S4 ranked species, both S4 and S5 ranked species are thought to be secure or widespread and abundant. Further, these occurrences are located outside the proposed EOI on private lands and should not be directly or indirectly impacted by the proposed development. The species observed include:

- Northern Bluet (*Enallagma annexum*) – S5
- Mountain Emerald (*Somatochlora semicircularis*) – S5
- Lyre-tipped Spreadwing (*Lestes unguiculatus*) – S5
- Paddle-tailed Darner (*Aeshna palmata*) – S5
- Western Red Damsel (*Amphiagrion abbreviatum*) – S4

¹¹ British Columbia Habitat Wizard (2019). Province of British Columbia. Retrieved from <http://maps.gov.bc.ca/ess/hm/habwiz/>

3.2.5 Visual Impact

Analysis of the Province's Visual Landscape Inventory dataset determined that the proposed destination would occupy land characterized as having High to Low visual sensitivity. Specifically, the base areas, ski lifts and ski terrain would occupy land of Moderate sensitivity. The lands indicated as having High sensitivity would only be used for skiing with no ski or base area infrastructure planned. Given that the vision for Zincton is focused on a backcountry recreation experience, as opposed to a traditional mountain resort experience, visually this would amount to a few dozen guests on these slopes over the course of the day.



Zincton

Expression of Interest
2019

- Legend**
- Proposed Zincton EOI
 - Private Base Area Lands
 - BC Recreation Visual Landscape Impact**
 - Null
 - Very High
 - High
 - Moderate
 - Low
 - Very Low
 - Not Visually Sensitive
 - Unclassified
 - Needs Assessment
 - Waterbody

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Zincton Area
Visual Impact Analysis

Figure 3-9

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3.2.6 Summary of Existing Environmental Conditions

At this early stage of planning and development the proposed EOI study area was not found to contain any environmental values that will prohibit the development of the envisioned destination. Moving forward, in all stages of planning and development, the environmental values present in the study area and environmental best practices will guide the creation of the final preferred concept.

The proposed development area does not feature any at-risk or sensitive tree species or forest types that will be negatively impacted by the proposed development. A single occurrence of an at-risk plant species (Lance-leaved figwort) was found in proximity to an existing building associated with an old mine site. The proponent will observe, identify, and report any future occurrence of this species or any other at-risk species and adjust its development and operations accordingly. Beyond this, a single non-legal OGMA is located at the edge of the proposed EOI area but is not anticipated to be directly or indirectly impacted by development or operations as it is a fair distance from the potential recreation terrain.

No occurrences of at-risk terrestrial or aquatic species were found. The local lakes and rivers are home to a range of fish species (e.g. Rainbow Trout, Kokanee), but none of these are anticipated to be directly impacted by the proposed development or operations. Indirect impacts, such as erosion and sedimentation, are expected to be limited as Zincton will not undertake traditional ski run development (e.g. clearing, grading). The proposed area does not contain any at-risk terrestrial species, or any ungulates or ungulate habitat.

Finally, some of the ski terrain included in the proposed EOI study area has been rated as having a moderate to high visual sensitivity. However, following the vision of a backcountry-oriented experience, the intensity of use will be low leaving these areas relatively undisturbed visually. Zincton will work with the Province and impacted stakeholders to ensure that any visual impact is minimized through development or operation.

4 OPPORTUNITIES AND CONSTRAINTS PLAN

4.1.1 Opportunities

- Significant Physical Potential

The terrain is well-suited to winter and summer recreation and the study area provides enough area to develop a viable four-season resort. The slopes under London and Whitewater Ridges offer significant intermediate to expert ski terrain and there are opportunities to develop epic mountain biking and hiking trails throughout the area. The base and peak elevation would provide the second greatest skiable vertical in BC and historical snowfall and snowpack records indicate the study area has a climate conducive to ski resort development.

- Limited Environmental Impact

There are no environmental values that would prohibit development. There is only one instance of an at-risk species in the study area, and this was observed 45 years ago near an existing building associated with an old mine site. Further, the direct and indirect impacts to environmental values are anticipated to be limited due to the minimalist approach to terrain development and the location of these values relative to the proposed recreation features (e.g. ski runs, trails).

- Accessible

The proposed staging area and Mountain Village are easily accessible from Highway 31A, and the destination is within three hours drive of regional airports in Castlegar and Trail, and within 4 hours of the Kelowna International Airport.

- Aligned with Regional Objectives

Zincton proposed for a region that has recently seen a decline in its primary economic drivers and has pursued a shift towards economic diversification and tourism. Zincton is aligned with the community's goals and objectives and would support the vitality of the region.

- An Industry First

The concept of a lift-accessed, backcountry-oriented experience is unique in the mountain resort industry and would be the first of its kind in Canada. It capitalizes on the growth of the backcountry skiing industry and BC's strong reputation for backcountry recreation.

4.1.2 Constraints

- Existing Tenures

The proposed development overlaps in part with existing commercial recreation tenures awarded under the Adventure Tourism Policy. However, from the information available it appears that these lands are seldom if ever used by the existing operators. Further, the proponent believes that the proposed recreation and base area offerings will complement and not compete with the existing operators and will work to strengthen the reputation of the region as a backcountry recreation destination.

- Neighbouring Jurisdictions

The EOI study area is effectively delineated to the north and south by Goat Range Provincial Park and Highway 31A. Policies and regulations employed by BC Parks and the Ministry of Transportation and Infrastructure (MOTI) will undoubtedly influence the final preferred concept and operations of Zincton. Related to MOTI operations and regulations, Zincton will work with local authorities, users, and stakeholders to effectively manage avalanche control in the EOI area and will develop an avalanche control and management program as part of future planning stages.

5 PRELIMINARY CONCEPT

5.1 Design Elements and Principles

- Multi-dimensional, Immersive Skiing Experience

Zincton will not replicate the ‘traditional’ resort experience. Rather, the recreation experience offered will allow guests the opportunity to learn and apply new skiing and mountaineering skills (e.g. powder skiing, avalanche safety and rescue, ski touring, etc.) on world-class ski terrain. Ski terrain will be lift-accessed and self-propelled, and the experience offered with professional guides or self-guided. Guests will not only leave with considerable vertical skied, but with new skills and stories to share.

- Intimate Mountain Village

Further distinguishing itself from the traditional resort experience, Zincton will not have a central Day Lodge or any condos or hotels. Instead, a neighbourhood of intimate, family-sized private and publicly available cabins will provide all the accommodation, with a central village stroll populated with fine dining restaurants, retail opportunities, a general store, rentals, and skier/guest services. The intent is a Mountain Village that is truly a village, free of large hotels or shopping centres, pedestrian-scaled and oriented, which in turn redirects focus back to the stunning natural surroundings.

- Sustainable with a Small Carbon Footprint

The vision for Zincton is a destination within nature, not imposed upon it. It will be planned, built, and operated to have minimal environmental impact. Zincton will work to minimize its carbon footprint once constructed, with power supplied from an existing private run-of-river hydro station near Three Forks, and all buildings will be constructed with solar panels, onsite power storage, and high-efficiency materials and appliances. In keeping with the envisioned ski experience, tree removal will be limited to that necessary to provide effective egress back to the Mountain Village or to create gladed ski runs. This objective will serve as foundational piece of the guest experience, communicated to guests and staff through advertising, onsite signage and sustainability initiatives (e.g. compost), and orientation meetings.

- Destination Resort Experience

Zincton will adopt a heli-skiing approach to visitation, where guests are encouraged to book their multi-day trips months in advance. With the advanced notice, every aspect of the guest experience can then be tailored to the individual, from ski rentals, trip selection, learning opportunities, guided use, and the preparation of accommodation. Day-use visitation is anticipated to be a minor contributor to overall visitation.

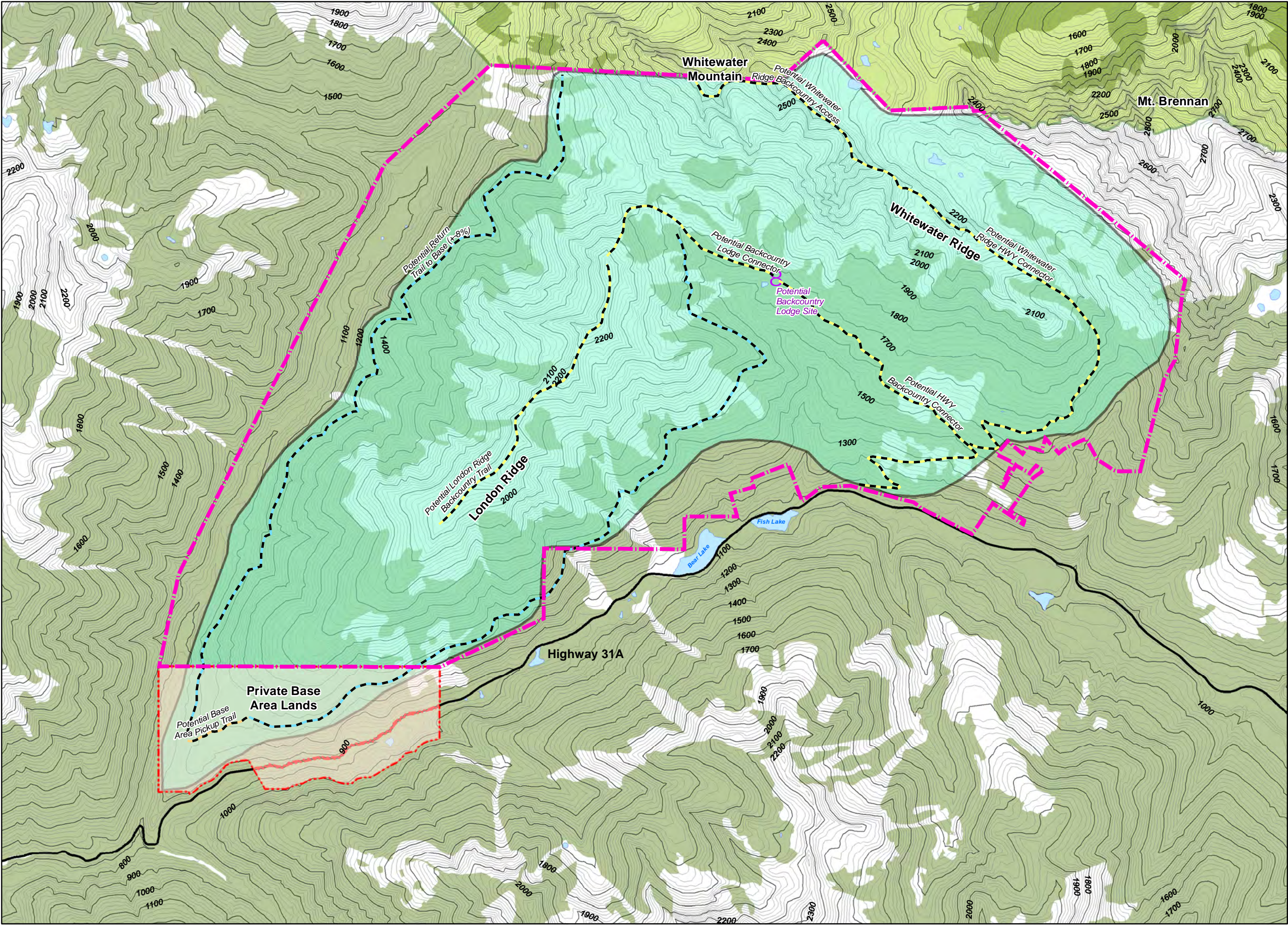
5.2 Mountain Concept

The Mountain Concept has been delineated to offer skiing and mountain biking terrain that will fulfill the vision of a world-class, all-season, backcountry-oriented mountain recreation destination that delivers an unparalleled recreation experience. Guests will be able to access approximately 4,500 ha of backcountry terrain through a small network of lifts and self-propelled travel (i.e. ski touring, mountain biking). The lifts will help guests access the height of land along London Ridge and Whitewater Ridge, with a ski touring route/trail running the length of London Ridge, connecting the proposed Mountain Village to a Backcountry Lodge and beyond. Considerable natural ski terrain exists off the sides of both ridges, ranging from intermediate to expert skier skill classes. For winter activities, no traditional ski runs will be established (i.e. cleared, graded), but gladed terrain will be developed where appropriate and ski outs will be constructed at the bottom of all slopes to lead skiers back to the base or staging areas. Zincton may name the bowls, glades, couloirs and prominent features of the ski terrain for guest orientation and wayfinding, but it will not employ the relatively intense terrain development found with traditional mountain resorts.

In the summer, the ridge lines and some of the more mellow intermediate terrain beneath Whitewater Ridge will also be used to develop a low-density hiking and mountain bike trail network. Summer activities at Zincton will use the chairlifts as well as dedicated climbing trails to access the trails higher on the ridges. Where sensible, mountain biking trails will be spatially separated from pedestrian trails to mitigate potential user conflict. Summer operations will be based out of both the proposed Mountain Village and a Backcountry Lodge. Trails that allow mountain biking will be singletrack, with berms and bridges as needed to create an enjoyable experience and minimize environmental disturbance. The trails will not include skill testing, manmade features like wooden 'skinnies', drops, or dirt jumps, instead opting for a more natural, backcountry mountain biking experience that caters to guests looking for epic rides.



Proposed Zincton EOI Boundary



Zincton

Expression of Interest
2019

Legend

- Potential Trails**
- Potential Backcountry/Ridgeline Trails
 - Potential Base Access Trail
 - Potential Return Trails to Base Area (+8%)
 - Proposed Zincton EOI
 - Highways
 - Streams
 - Private Base Area Lands
 - Parks and Protected Areas

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Proposed
EOI Ski Area Plan

Figure 5-1

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5.2.1 Preliminary Comfortable Carrying Capacity Analysis

To understand the potential capacity of the land to support four season recreation activities, BHA conducted a preliminary Comfortable Carrying Capacity (CCC) analysis in keeping with the All Season Resort Guidelines. However, it was recognized that the unique nature of the proposed activities did not align fully with those usually offered at a traditional mountain resort. As such, while the analysis endeavored to determine the number of guests who could comfortably participate in recreation activities without compromising the guest experience or the environmental values of the land, established methods were adapted to better reflect the vision of a backcountry-oriented mountain destination. Specifically, it was recognized that a self-propelled backcountry skier is not capable of, and does not expect, the same amount of vertical skied in a day. For example, a recent survey of 252 backcountry skiers in BC's South Coast region found that on average skiers expect to get 3 ski runs per day with most runs ranging between 300 and 600 m in length¹².

Based on this understanding, BHA determined skiable area using the ski slope analysis to exclude un-skiable terrain and applied a very low skier density in line with backcountry skier expectations (relative to the ASRG). Resulting from this, the CCC of Zincton as proposed is approximately 1,550 skiers. Given the backcountry skiing is the focus, complementary activities, such as snowshoeing or cross-country skiing, are anticipated to be limited in scale, and there will be relatively few passive guests (6% of winter season CCC). As such, preliminary Balanced Resort Capacity is projected at 1,750 guests.

It should be noted that while summer activities will be a significant part of the overall recreation offering, summer visitation is not expected to surpass winter visitation, and winter season activities will define BRC.

5.3 Base Area Concepts

As noted, the Mountain Village lies wholly within private lands located above the Town of Three Forks. However, the planning and design of the base area has been guided by the principles and information contained in the All Season Resort Guidelines and has adopted those base area characteristics that have made BC's ski resorts a world leader. Further, the size of development (e.g. accommodation, parking, guest services) will be scaled to reflect the Balanced Resort Capacity of the recreation amenities.

The Mountain Village is envisioned as an intimate, pedestrian-scaled, and pedestrian-oriented base area, where all accommodation and skier services are ski to/ski from. Cabins will form all private and public accommodation, and no large hotels or condominium developments will be entertained. A village stroll will serve as the heart of the village, populated with restaurants, general and specialized retail, a general store, and a range of supporting services. Vehicle access is limited to the periphery of the village, only serving to allow guests to access the Mountain Village from Highway 31A. The priority in design has been placed on walkability with the effect of eliminating the need for vehicle use within the village.

¹² Button, R. (2019). *Backcountry Experience Survey (Responses)*. Retrieved from: <https://docs.google.com/spreadsheets/d/1HZr-8ZhMGT2SzQsLk6snWOeLCTiQ1w9idjfmI3zcptQ/edit#gid=1536429579>

A day-use parking area is planned for land adjacent to Kane Creek, approximately 1.15 km north of Highway 31A. As proposed, day-use guests would stage from this parking area and access the Mountain Village by way of a gondola. This would carry day-use guests to a location near the village stroll and the skier services they would use to plan their day. At the end of the day skiers will either ski out or download on the gondola. This detail will be finalized as planning progresses.

The Mountain Village will be complemented by a boutique, ski to/ski from 4-Star Backcountry Lodge located under Whitewater Ridge. Complete with a world-class chef and staff, the Lodge will be a self-contained destination, capable of hosting approximately 12 to 24 guests at a time.

Finally, as proposed, Zincton will provide accommodation for all staff onsite in a small neighbourhood development just beyond the parking and staging area adjacent to Kane Creek, in the valley bottom. The accommodation will be provided as cabins consistent with the development style of the Mountain Village and easily walkable to and from the base area gondola.

Of note, the ski resort infrastructure critical to operation located within the private base area lands would be placed within easements, or similar, to ensure that Zincton could continue to operate should a change of ownership (private or public) be required.

5.4 Phased Development

The development of Zincton will be phased with the intent to maintain a balance between the ski terrain offered and the capacity of the Mountain Village. The rate of development will be determined by visitation, the skier marketplace, and the priorities of Zincton. The implementation plan presented here is preliminary and will be refined through the planning process.

As planned, initial development will include the lifts above the Mountain Village in order to provide access to London Ridge and the ski terrain and ski touring options available there. Ski out routes along the lower slopes on the north and south of the ridge will also be completed to guide guests back to the Mountain Village. Concurrently, vehicle access routes to both the Mountain Village and day-use parking area will be developed, along with the gondola from the day-use area to the village, and the staff accommodation. The size and composition of the base area in the first phase has yet to be determined but will be in balance with the capacity of the ski terrain and offer services necessary for an enjoyable day on the slopes and relaxing night in the village.

In the subsequent phases, Zincton will look to develop the lifts, terrain, and trails under Whitewater Ridge, complemented by the construction of the Backcountry Lodge.

6 PRELIMINARY MARKET COMMENTARY

The unique vision for Zincton will capitalize on a rapidly growing backcountry skiing market, and BC's world-renowned alpine terrain, snow conditions, and strong reputation as a destination for international helicopter and snow cat skiers, and local backcountry skiers.

The backcountry skiing market has been growing rapidly in recent years. According to Snowsports Industries America (SIA), a non-profit industry trade organization, backcountry skiing is the fastest-growing segment of the ski industry. In 2015, backcountry equipment surpassed 12% of all ski equipment sales and has continued to grow. For the 2018–19 season, sales of alpine touring bindings and boots grew by 33% and 72%, respectively, compared to alpine (downhill) bindings and boots, which grew at 19% and 7%, respectively. While firm numbers on the size of the market have not been developed, anecdotal evidence indicates that the backcountry skiing market has doubled every 3 to 4 years on average over the past decade^{13,14,15}.

To capitalize on this growing market, Zincton will develop terrain and manage visitation in a similar fashion to BC's well-established and successful heli-ski industry, catering primarily to destination guests staying for multiple days. For reference, in BC the heli-ski and cat-ski operations reported approximately 41,500 guests (equating to 118,400 skier days) in 2018, representing an increase of 26% over 2013¹⁶. Of these guests, 78% are international, 14% come from other provinces in Canada, and 8% come from BC¹⁶. Notably, approximately 50% of heli-skiing and cat-skiing guests are return clientele¹⁶, a testament to the quality of the terrain, the experience, and the sustainability of the business. Zincton will look to replicate this success, offering a complementary, but 'grounded', mountain recreation experience.

Finally, as noted, day-use visitors are not anticipated to be a significant contributor to annual visitation. Rather, destination guests from outside the immediate region and who plan to stay for 4 to 10 days will comprise the vast majority of visitation. However, the local region is home to a dedicated group of backcountry enthusiasts who will no doubt form a small, core group of patrons. This group will be drawn from the approximately 155,000 residents within 250 km of Zincton, with the largest communities being Vernon, Coldstream, Nelson, and Castlegar⁴.

¹³ Dotsie, C. (2010). *Backcountry Skiing by the Numbers*. Retrieved from: <https://www.wildsnow.com/3694/backcountry-skiing-statistics/>

¹⁴ Stuart, R. (2016). *How Many Backcountry Skiers Are Out There?* Retrieved from <https://mountainculturegroup.com/how-many-backcountry-skiers-are-out-there/>

¹⁵ Porteous, S. (2013). *The Growing Business of the Backcountry*. Retrieved from: <https://www.bcbusiness.ca/the-growing-business-of-the-backcountry>

¹⁶ Helicat Canada (2019). *Economic Impact*. Retrieved from: <http://www.helicat.org/socio-economic/>



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