

## Executive Summary

Blackcomb Helicopters has identified 6 potential areas that could be developed for heli-biking activities. The areas were selected in consultation with the Lil'wat Nation's Land Referrals Committee:

- 1) Mt. Barbour
- 2) Mt. Barbour South
- 3) Ogre-Owl
- 4) Mackenzie Ridge
- 5) Ipsoot Mountain
- 6) Rutherford Ridge

Environmental values, including ensuring wildlife encounters, are managed according to the 2006 *Wildlife Guidelines for Backcountry Tourism/Commercial Recreation in British Columbia* and will be the focus of Blackcomb Helicopters' operations. Since improvements encompassed in this application will be limited to trail building, impacts to fish, wildlife and their habitats will be minimal.

The tenure application area was searched for overlapping tenures in order to identify any potential conflicts. There were no overlapping forest tenures identified, and overlapping mineral, trapline, commercial recreation and guide outfitter tenures have been listed. Blackcomb Helicopters recognizes the presence of these tenures and agrees to coordinate its activities with existing tenure holders.

## 1 Background

This management plan conforms to the current Adventure Tourism Policy and is directed to address the requirements in for Long Term Use of an Extensive Area (License of Occupation). This Management Plan details the following commitments:

- Specifying and justifying the proposed areas, purpose, terms and conditions;
- Establishing a proposed level of use including the estimated number of clients on an annual basis;
- Specifying measures to eliminate or minimize conflicts with existing interests in the area;
- Specifying measures to protect environmental integrity, ensure maintenance of public access, address affected parties' interests, and minimize/mitigate conflicts with other resource users.

### 1.1 Project Overview

Blackcomb Helicopters' operation is based in the Pemberton Valley airport, approximately 120 km north of Vancouver in the British Columbia Coastal Mountains. The areas of existing tenure are located in all directions in and around the town of Pemberton and its surrounding environment.

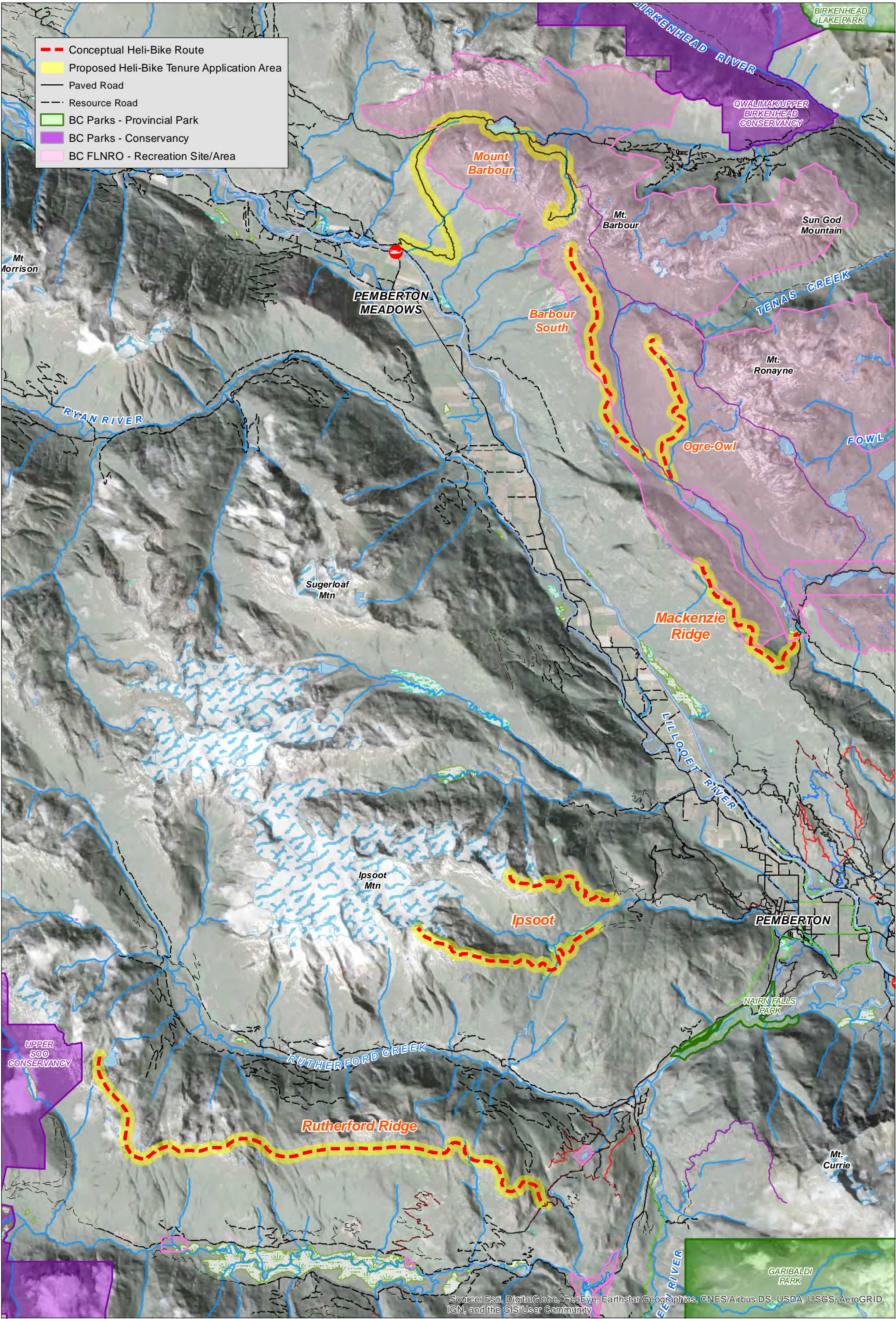
Blackcomb Helicopters offers local and visiting adventure tourism enthusiasts the opportunity to enjoy a range of activities in the Pemberton area. Tenured activities include:

- Winter heli-skiing and heli-boarding
- Winter picnics and events
- Summer heli-hiking
- Summer mountaineering
- Summer heli-fishing
- Mt. Currie Yurt operation
- Summer picnics and events
- 19<sup>th</sup> Hole tours

All activities share the common base of operations at the Pemberton Airport. Clients are picked up from their hotels by Blackcomb Helicopters shuttle bus and delivered to the operations base. All education, training and orientation take place at the base. All tours return to the base for follow-up social activities and are returned to their hotels by Blackcomb Helicopters shuttle bus. All activities are daytime activities although some clients choose multiple days of activities.

Blackcomb Helicopters is now applying for a 30-year License of Occupation to add heli-biking activities to its existing Crown Land Tenure (Map 1).

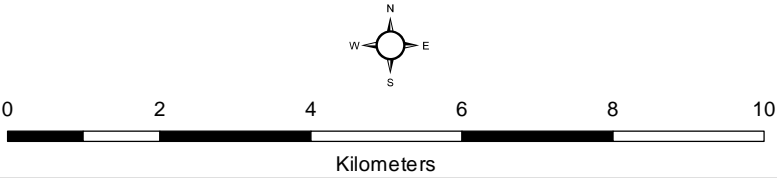




Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Map 1 - Location

Heli-Biking Tenure Application  
Blackcomb Helicopters  
Pemberton, British Columbia



GIS Cartographer: Todd Hellinga  
Date: February 2, 2018  
CERG File#: 391-02-03  
Projection: BC Albers  
Orthophoto/Data: ESRI/BC Gov







Blackcomb Helicopters has chosen to exclusively use certified guides for each of its guided product offerings. The Professional Mountain Bike Instructors Association (PMBI) and the International Mountain Bike Association (IMBA) are the two main certifying organizations in British Columbia for mountain bike guides.

Blackcomb Helicopters is a full member of the HeliCat Canada and adheres to the industry standards for staff and guides, as set out by the Association's Standards Committee. HeliCat's standards cover all aspects of guide certification and training, including in-house training and sponsors out-of-house skills development for key staff. HeliCat also conducts operational audits of member companies to ensure adherence to the standards. Since heli-biking is a new activity, HeliCat will be developing a set of policies pertaining to the activity.

### **1.1.1 Recreation Activities Offered On Crown Land**

#### **1.1.1.1 Description of Experience**

##### ***Reservations and Transportation***

Clients reserve their desired activity via the internet, phone, or fax, or in person at various locations in Whistler and Pemberton. A storefront reservation centre in Whistler is operational for this upcoming season. During the summer, pick up times are more flexible due to longer daylight hours. Guests are transported to the Pemberton Airport base of operations facility in a BH owned, 12-passenger van, arriving approximately 30 minutes later. Guests may also be picked up at various locations in Pemberton or choose to meet at the base facility at a prearranged time.

##### ***Guided Heli-biking***

Blackcomb Helicopters provide their clients with 'the ultimate backcountry experience'. Guests can book daily or multi-day packages and enjoy the personal attention derived from a "four guests to one" guide ratio.

Clients are divided into groups of five according to ability. All intermediate riders and expert riders without extensive experience are encouraged to rent bikes (available at the base). Three groups of five (12 total, plus 3 guides) form a full complement for one helicopter. The first group takes off with the lead guide and pilot to the landing for the first ride of the day. The remaining groups wait at the base or staging area, a short flight away, for the helicopter to return. The lead group sets down on the pre-selected landing site for the first descent of the day, unless site conditions dictate otherwise. Site conditions that could preclude landing are: dangerous weather conditions, presence of wildlife, public hikers, or mountaineers. If the pre-determined site is aborted, the first group proceeds to the second site. The group sets down and unloads while the guide unloads the bikes. The helicopter departs to pick up the second group while the first group conducts a gear check and prepares for the first descent. The timing is such that the second group arrives prior to the first group's run. The helicopter departs for the third group as the first group and second group start their initial descent of the day after the second group completes their gear check. The lead guide sets the pace of descent. The group follows on the guide's lead according to the guide's instructions. The descent ends at the pickup location in a safe spot. Meanwhile, the third group, under the leadership of a third guide, follows the route of the first groups.

After dropping the third group off at the landing, the helicopter proceeds to the pickup point and shuttles groups one through three to the next drop. This process repeats up to four times typically, but is dependent on the skills and stamina of the group.

### **1.1.2 Archaeological Concerns**

If archaeological sites are located within the impact areas, appropriate mitigation strategies such as avoidance or collection are developed. Opportunities for cultural tourism in conjunction with the First Nations communities are also anticipated.

The Líl'wat Nation and other First Nations are concerned about the preservation of archaeological sites. Archaeological sites have spiritual connections for many First Nations people and they sustain and nurture their relationship to the land. First Nations want to be assured that archaeological sites are not being damaged by the proposed activities.

In addition, archaeological sites are protected under the Heritage Conservation Act. Archaeological sites must not be damaged or altered in any way except under permit from the Archaeology Branch at the Ministry of Sustainable Resource Management. Archaeological sites are protected regardless of whether they have been registered or not.

Much of the application area has not been investigated for archaeological sites. While there is little impact expected to potential archaeological sites, there is some concern with respect to hiking, biking and picnicking in the summer. Archaeological sites in alpine and subalpine locations are fragile and usually close to the surface. There is some possibility for disturbance from even low impact activities such as hiking or helicopter landing. If sites exist in the proposed use areas, they need to be identified and mitigation plans must be developed to protect them.

#### ***Resolution of Archaeological Concerns***

If archaeological sites are located within the impact areas, appropriate mitigation strategies such as avoidance or collection are developed. In the case of heli-biking descent trails, they can be re-routed around the sensitive areas prior to construction.

### **1.1.3 Environmental and Wildlife Concerns**

Blackcomb Helicopters understands that First Nations have concerns about protection and sustainability of the environment. First Nations culture and economy is tied to the land in a way that is essential to their survival. Many First Nations people are dependent on animal and plant species in a way that non-natives are not. As such, they have a special interest in protecting the resources.

#### ***Resolution of Environmental and Wildlife Concerns***

The proponent has retained qualified biologists and professionals to undertake the appropriate studies and make recommendations to ensure the least impact to environmental resources. The activities themselves are by nature low impact but special measures are implemented to protect sensitive wildlife such as goats, grizzly bear, wolverine and moose (see section 4.3.1.1). The proponent will make available any environmental or wildlife plans or studies to any interested First Nations for review. If concerns not identified by the biologists are presented, additional measures to protect the resources are considered.

## 2 Location

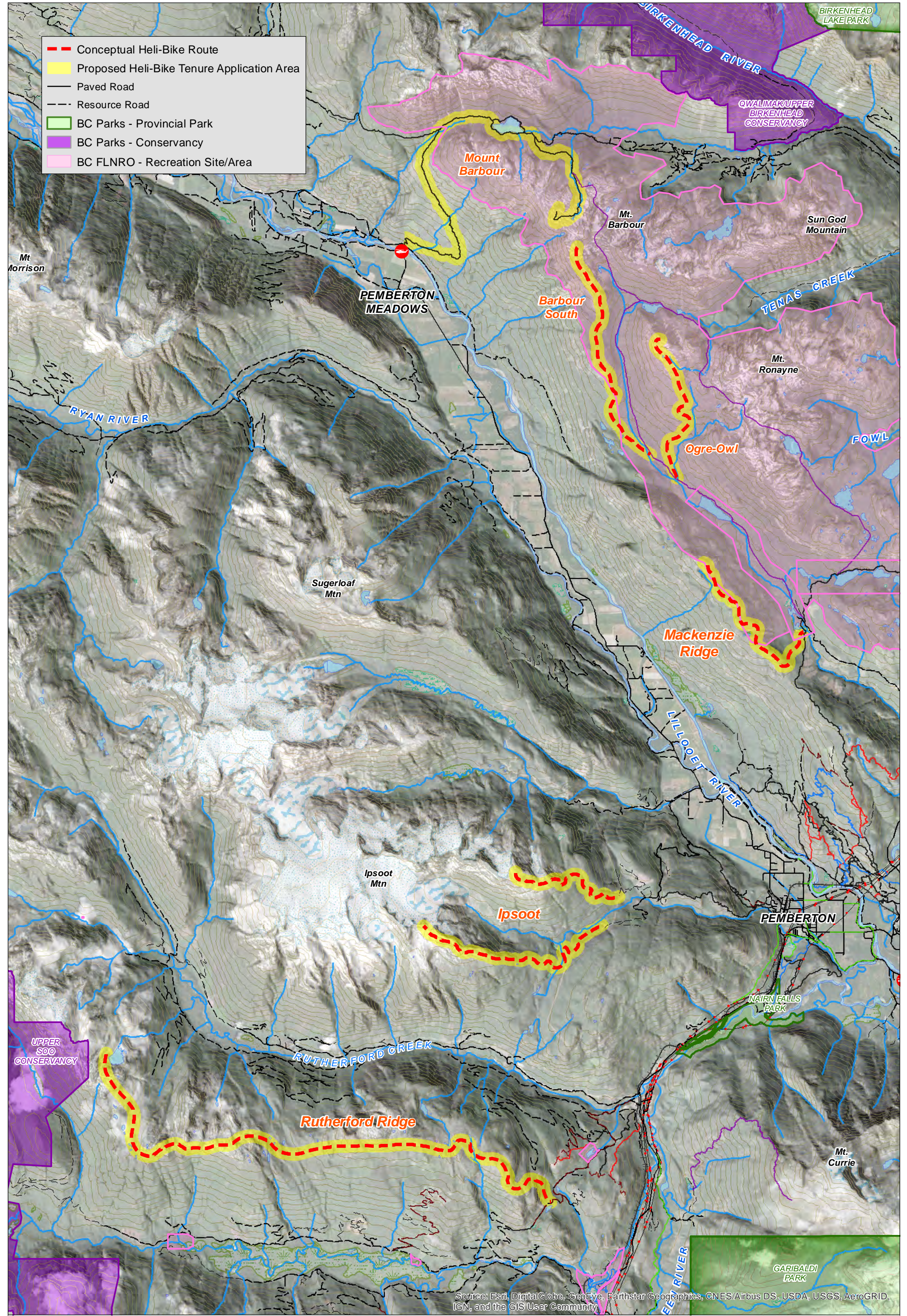
### 2.1 Description

Nine areas comprising approximately 80,610 ha constitute the existing land base currently tenured to Blackcomb Helicopters for heli-skiing, heli-hiking and events. The areas fall within the same geographic area; approximately within a 48 km radius of Pemberton and within 40 km from the Pemberton Airport. All areas occupy one geographic operating zone each, allowing for a variety of usable terrain types in a relatively minimal area. This management plan is directed toward additional areas for helicopter supported mountain biking that covers an area of 2,541 ha. Although the biophysical diversity found in the existing, geographically separate areas provides the foundation for a viable heli-skiing / heli-hiking operation, heli-biking has a different set of requirements and each of the application areas described in the plan can be evaluated independently. The application areas are described as areas or zones, but the anticipated tenure associated with each will be the proposed trail alignment with a buffer of predetermined width on either side (Map 2). This will give the trail an aerial context, thereby complying with the policy for area-based tenure. In total, the area covered by the trail alignments with their buffers is 2,541 hectares.

For the purpose of this management plan the 6 areas or zones are referred to as follows:

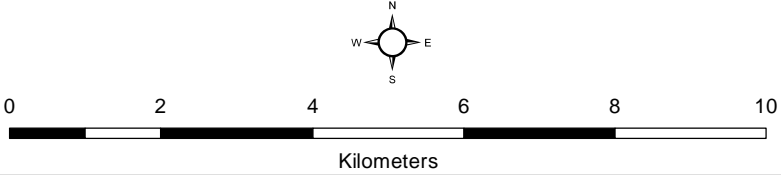
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Map 2 - Extensive Use Area

Heli-Biking Tenure Application  
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**CASCADE ENVIRONMENTAL**  
RESOURCE GROUP LTD



## **2.1.1 Location Justification**

### **Area 1 – Mt. Barbour**

The Mt. Barbour zone is an existing trail that has been upgraded over the past 2 seasons to create a sustainable route through the alpine that connects to the existing Owl-Tenquille route and at the lake, the existing Tenquille Lake trail which descends to the Pemberton valley beside the Lillooet River. This existing route is maintained through a number of groups and agencies, with the main Tenquille Lake trail maintained under a partnership agreement by the Pemberton Valley Wildlife Association.

### **Area 2 – Mt. Barbour South**

This route travels south along the broad ridge from Mt. Barbour through open terrain with expansive views over the Pemberton valley and east over the Tenas and Owl Creek drainages. Terrain is well suited for the development of a heli-biking trail with great sightlines and well drained terrain.

### **Area 3 – Ogre-Owl**

Starting on a sub-peak west of Mt. Ronayne, this route travels almost due south in open alpine and sub-alpine terrain as it descends towards Owl Lake. Open views in all direction provide good building conditions and good sightlines in this unique alpine basin with limited treed terrain in its lower reaches.

### **Area 4 – Mackenzie Ridge**

The Mackenzie Ridge route will travel southeast, both down and up as it travels towards the existing “Skelu’la7” trail where it joins with the Owl Creek FSR near the Chain Lakes turn off. The terrain is rocky and forested with many openings providing views over the Pemberton valley. This route is seen as a more all-mountain cross country experience as opposed to the more downhill oriented routes in the application.

### **Area 5 – Ipsoot Mountain**

Two routes make up this zone, each following eastern ridges off Ipsoot Mountain, one north of Pemberton Creek, and one on the south side. Again as with many of the other proposed routes, both of these begin in rocky alpine terrain before descending into mature forest in their lower reaches providing a mix of great views, open terrain, finishing with routes through the forest.

### **Area 6 – Rutherford Ridge**

This proposed route would meander through the alpine terrain of Rutherford ridge near the boundary of the Upper Soo Conservancy in the west towards Highway 99 in the east. The ridge route features Rutherford Creek to the north, with the Soo Valley to the south. This route is seen as an all-mountain route with both climbing and descending for a longer ride product more in a cross country product.







## 2.2 Seasonal Expectations of Use

The following table provides a forecast of estimated use levels for the application area. Most of the identified trails do not currently exist and as such will need to be constructed or improved. To allow time for development of the trails, their use will be phased in over the next two to three years. The requirement of the Management Plan is a forecast of client days and the forecasted number are presented in the last line of the table, below. However, the client day forecasts are based on a standard model of four descents per person per day of heli-biking. Since the focus of concern and analysis of impact is centred around the level of use on individual trails, an effort was made to identify the number of trips by trails. These are described as descent days in the table.

**Table 1. Client and descent day forecasts.**

Activity Report			Descent Days						
Activity Area	Typical Period of Use	Year Started	2017	2018	2019	2020	2021	Full Capacity	Year Full Capacity Reached
Mt. Barbour	July - Oct	2017	480	530	600	600	600	600	2019
Mt. Barbour South	June - Oct	2017	480	530	600	600	600	600	2019
Ogre-Owl	July - Oct	2018	N/A	480	530	600	600	600	2020
Mackenzie Ridge	June - Oct	2018	N/A	480	530	600	600	600	2020
Ipsoot Mountain	June - Oct	2018	N/A	600	660	730	730	800	2022
Rutherford Ridge	July - Oct	2019	N/A	N/A	200	250	300	400	2023
<b>Total Descent Days</b>	-	-	<b>960</b>	<b>2,620</b>	<b>3120</b>	<b>3,380</b>	<b>3,430</b>	<b>3,600</b>	-
<b>Client Days</b>	-	-	<b>240</b>	<b>655</b>	<b>780</b>	<b>845</b>	<b>858</b>	<b>900</b>	-



## 3 Infrastructure and Improvements

### 3.1.1.1 Proposed Base Facility

With the present increase of growth for winter operations and the expansion of activities into the summer season, BH has obtained an existing building at the airport for use as a base of operations and heli-plex facility. This facility will serve as a permanent all season home for operations and allow for expansion of existing and complementary products and services. Blackcomb Helicopters looks to further align their operations from the Pemberton Airport as this location provides enormous benefits to the community and to the logistics of BH operations.

The airport falls within the jurisdiction of the Village of Pemberton, which controls zoning and land use (see Section 3.3). The subject lands are fee simple (private land) and are leased from the owner, the Village of Pemberton.

BH also has an existing base of operations at the Whistler Heliport. While the focus of heli-biking activity will be at the Pemberton base, BH may elect to use the Whistler base as well.

### 3.1.2 Improvements

Trail building and helicopter landings are the only anticipated improvements associated with this application. Trails will be laid out for approval by Recreation Sites and Trails BC under Section 56 and 57 of the *Forest and Range Practices Act* (FRPA).

### 3.1.3 Intensive Use Sites

The Provincial Adventure Tourism (AT) Policy defines intensive use sites as “small areas of Crown land that are integral to the AT Tenure holder’s operation and typically contain improvements (e.g. cabin)”. BH’s existing intensive use sites are related to refuelling and remote staging sites located on Mount Currie (Yurt site), the Duffey Lake Road (refuelling/staging), North Joffre Main Road (refuelling/staging), the Birkenhead FSR (refuelling/staging) and after the second bridge crossing of Lizzie Creek (refuelling/staging). BH would like to move the Yurt location closer to the lake and its use will be in support of summer activities rather than the original intended winter use by CRH.

## 3.2 Access

Located 125 km to the south, Vancouver is the largest major centre in proximity to Whistler and Pemberton. Vancouver International Airport receives regularly scheduled direct flights from around the world. Guests access the BH base facilities from Whistler or Vancouver via the Sea to Sky Highway 99. Pemberton Airport has the capability to accept flights from Vancouver, although scheduled flights are not presently offered. The base can also be accessed from major centres to the east, such as Kamloops, via the Sea to Sky Highway 99 (the Duffey Lake Road).

A shuttle bus owned and operated by Blackcomb Helicopters picks up clients at their place of accommodation in Whistler or Pemberton in the morning and delivers them home at night. Occasionally clients that are locally resident in Whistler, Pemberton, Vancouver or Seattle elect to drive to the Pemberton Airport operational base and parking is provided.

### 3.2.1 Access to Zones

Clients are transported from Whistler to the Pemberton Airport in company vans. When clients need to go to the remote staging areas, they are transported again from the airport to the staging sites as required (Map 2). The company vans return the clients to the Airport and Whistler or their Pemberton accommodations at the end of the day. Locations are off of the Duffey Lake Road approximately 250 m west of the salt shed, on the east side of the Joffre Forest Service Road approximately 250 m north of the Highway 99 turnoff, and located after the second bridge crossing of Lizzie Creek on the Lillooet Lake FSR, the Van Loon property near the Upper Lillooet FSR Bridge and approximately 3 km up the Birkenhead FSR

All flight routes have been planned to mitigate helicopter noise where possible by blocking a ridgeline between the ascent route and valleys below or minimizing overflights in populated areas.

### **3.2.2 Access within Zones**

Landing and pick up sites are chosen for their suitability and safe location. Some have been pre-selected and agreed to in order to mitigate potential impacts to wildlife. Stakes are planted at the start of the season, replaced as required, and removed at the close of the season. If thinning of trees is required to ensure a safe landing site, permits are obtained from the appropriate offices of the Ministry of Forests and Range.

### **3.3 Waste Collection and Treatment Disposal**

All waste will be flown out by helicopter at the end of the day and guests will be instructed to follow the “pack it in, pack it out” principle once they have left base or staging areas to ensure no waste is disposed of while out on the trails. A porta-potty will be placed near the Yurt site and serviced regularly by helicopter.

## **4 Environmental**

### **4.1 Land Impacts**

#### **4.1.1 Vegetation Removal**

Vegetation removal will be minimal and associated with trail building. All plans for trails and helicopter landings will be approved through FRPA.

#### **4.1.2 Soil Disturbance**

Soil disturbance will be limited to the trail bed and will be carried out with hand tools.

#### **4.1.3 Riparian Encroachment**

Riparian areas will be avoided and trail crossings will be minimized and perpendicular to the channel.

#### **4.1.4 Pesticides and Herbicides**

No herbicides or pesticides will be used.

#### **4.1.5 Visual Impacts**

Trails will be so narrow as to be invisible on the landscape. As such, no visual impacts are anticipated.

#### **4.1.6 Archaeological Sites**

Archaeological assessments have been conducted for the area around Matrimony Lake on Mount Currie. No known sites are currently identified in the application areas (see Section 1.2.1 Archaeological Concerns).

#### **4.1.7 Construction Methods and Materials**

Trail construction will be entirely conducted by hand. No imported materials are anticipated.



## **4.2 Atmospheric Impacts**

### **4.2.1 Sound, Odor, Gas or Fuel Emissions**

Impacts associated with heli-biking will be limited to noise and emissions produced by the helicopters and support vans. As a long time, locally owned and operated company BH has a good understanding of sensitivities around noise with respect to helicopters, and continually strives to avoid disturbing the residents and wildlife. No significant adverse impacts are anticipated as a result of the heli-biking.

In addition, drawing on more than a decade of experience with carbon offsetting in its affiliated company Vancouver Film Studios, Blackcomb Helicopters has developed a carbon offsetting program whereby all carbon emissions from flights contemplated in this management plan will be fully offset. To the best knowledge of management, this is the first such program in Canada, and Blackcomb Helicopters has been asked to advise HeliCat Canada in developing a similar program for their members.

### **4.2.2 Drainage Effects**

Trails will be managed to avoid effects of drainage and erosion. Riparian areas will be avoided. Cross ditching will be maintained and where necessary, the trail bed will be armored with locally available rock.

### **4.2.3 Public Access**

Public access will not be encumbered, nor will it be encouraged on trails maintained by BH. Access to the drop sites will be controlled through BH and as such, the issues associated with unconstrained access to the land will be avoided and with the support of BC Recreation Sites and Trails, can be effectively managed.

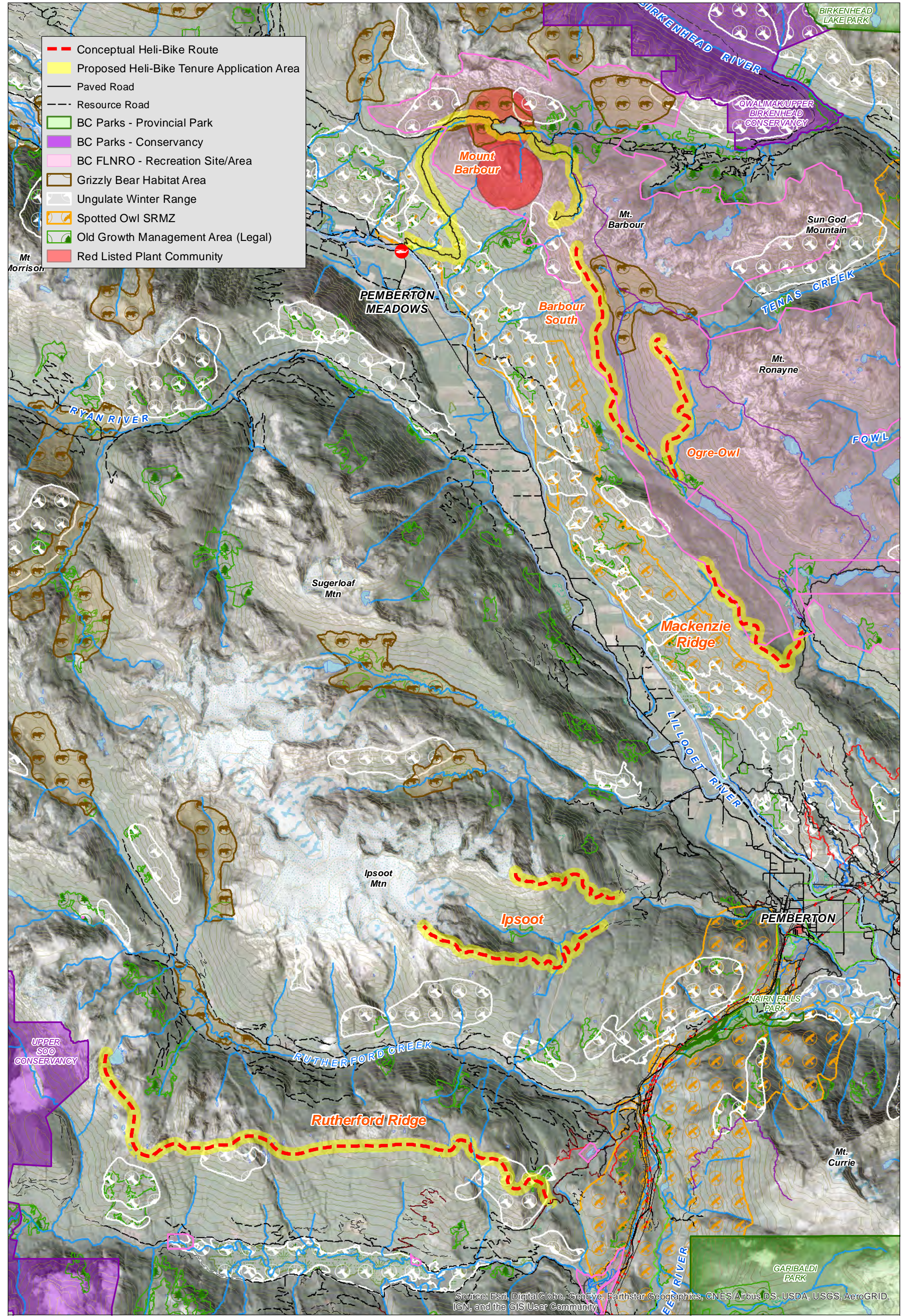
## **4.3 Fish and Wildlife Habitat Impacts**

The tenure area provides potential habitat for a wide range of wildlife species.

Of the sensitive animal species expected to occur within the operating area, those that are most vulnerable to impact by heli-sports include: grizzly bear (*Ursus arctos*), wolverine (*Gulo gulo*), and mountain goat (*Oreamnos americanus*). Other species of concern, identified from FLNRO mapping information and the Interim Guidelines, that are likely or have the potential to occur within the operating areas include: fisher (*Martes americana*), Keen's long-eared Myotis (*Myotis keenii*), Townsend's big-eared bat (*Corynorhinus townsendii*), Harlequin duck (*Histrionicus histrionicus*), Peregrine falcon (*Falco peregrinus*), Northern goshawk (*Accipiter gentiles*), spotted owl (*Strix occidentalis*), rubber boa (*Charina bottae*), and tailed frog (*Ascaphus truei*). In general, important wildlife values in the area could include (but are not limited to): mineral licks, alpine meadows, riparian areas, mountain goat kidding areas, critical mountain goat winter range, denning and/or nest sites, wildlife trees, food caches, natural travel corridors and game trails.

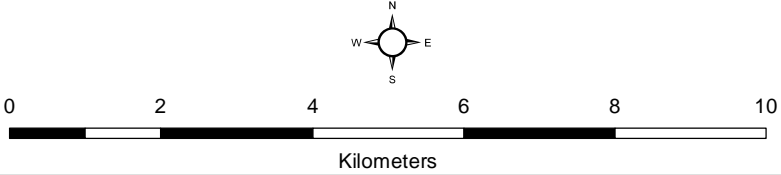
Sensitive wildlife habitats and ranges and rare vegetation communities within the operating area of Blackcomb Helicopters are presented in Map 3 below.





Map 3 - Wildlife and Vegetation Constraints

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#### **4.3.1.1 Potential Adverse Affects**

##### ***Potential Impacts to Fish and Fish habitat***

The activities of heli-biking, hiking, mountaineering, or picnicking themselves have minimal impact to fish and fish habitat; however, there are several areas of potential concern. Human waste deposited within 30 m of a watercourse has the potential to leach into the system and elevate nutrient levels. Increased nutrient levels alter water chemistry and therefore, alter food cycles. Excessive trail widening in riparian areas in high elevation environments where growing seasons are slow has the potential to increase surface erosion thereby increasing sediment runoff into water.

Due to the low number of users and the low frequency of use, combined with the best practices for trail design, construction and maintenance, the risk of adverse impacts to fish or fish habitat arising from the proposed heli-biking activity is extremely low.

##### ***Potential Impacts to Wildlife***

The two main categories of potential wildlife impacts associated with heli-biking operations in montane habitat are noise and increased human presence.

The most direct consequence of noise is a fright response in animals on the ground or in the air within hearing distance of the flight path. Fright responses can be energetically costly and can push animals off of preferred habitat in the short term. If noise disturbance persists, these effects can become permanent, causing animals to move out of the area entirely. Alternatively, some animals can adapt to the noise, particularly if it is predictable and is not negatively reinforced (Penner, 1988). An example of negative reinforcement would be if the noise of a helicopter was shortly followed by the presence of people moving about on the ground, especially if movement was toward the animal. Animals may then learn to associate the noise of the helicopter with pursuit.

Garbage and human waste are also a significant problem, particularly in the alpine where decay processes are extremely slow due to the low temperatures and dry air. Fortunately, the issue of human waste can be managed by BH guides through enforcement of the “pack it in, pack it out” policy.

#### **4.3.1.2 Mitigation**

##### ***Impact Mitigation and Avoidance for Fish***

Most proposed trails in the operating areas follow ridge lines and heights of land. This ensures that impact to fish and fish habitat due to the activities related to heli-biking are negligible. BH does not modify riparian areas nor build any structures in and around watercourses (with the exception of bridge crossings, where necessary). Any tree removal that may take place will not occur within a 30 m buffer around watercourses. BH encourages and practices low impact activities and follows all guidelines for determining most desirable routes as set out in HeliCat’s Best Practices for Sustainability. Additionally BH has been asked to assist Helicat Canada in their current effort to update to update these best practices.

BH has developed a Waste Management Plan, included in the existing Environmental Health, Hazards and Safety Plan, which ensures that human waste is properly disposed of and does not enter watercourses (CRH MP, 2009). In addition, BH has a spill response kit capable of absorbing fuel and oil spills in all helicopters. BH operations avoid potential impacts to fish and fish habitat.

##### ***Impact Mitigation and Avoidance for Wildlife***

Adequately mitigating the potential impacts to all species within the operating area requires a multi-level approach consisting of two major categories:

1. Operational Guidelines
  - Avoid established no-fly zones and sensitive areas.
  - Establish trail rating system based on potential impact.
  - Avoid sensitive wildlife observed outside of established no-fly zones.



## 2. Adaptive Management

- Modify operational guidelines to include new permanent or temporary no-fly zones as needed.

### Mitigating Impacts Associated with Human Use

BH avoids intrusive or potentially disturbing human activities during critical periods when wildlife are under environmental stress (e.g. birthing or lactation times). No person is permitted to disturb, approach, or feed wildlife, and a strict 'admire from a distance' policy is enforced for all wildlife species. Under no circumstances are helicopters used to view or search for wildlife species except in the presence of a qualified biologist for the purposes of wildlife management. Where animals are incidentally encountered on foot, clients are permitted to view wildlife from a safe distance (to be determined by MOE) with binoculars or a spotting scope. BH's approach in managing wildlife encounters involves: providing quality in-house training by wildlife specialists who presents information dealing specifically with all aspects of human/wildlife encounters, human disturbance issues, and responsible wildlife viewing. All waste of any kind (food, packaging, human waste, paper goods, hygiene products) are removed at the time of use (see Environmental Health, Safety and Hazards Plan, CRH MP, 2009).

Flightlines to the operating areas have been planned to take advantage of topographic features in order to minimize conflict.

### ***Mitigating Impacts to Wildlife Using Wildlife Avoidance Response Protocol (WARP)***

To address concerns about wildlife encounters while people are on the ground, BH provides an in-house training program dealing specifically with human/wildlife encounters, animal disturbance issues, and responsible wildlife viewing. These management actions result in guides who are well-informed and well-educated about wildlife and associated issues. In turn, this information is passed on to clients.

Although developed to manage goat and bear encounters, BH applies the WARP to all species of concern including wolverines, red-listed or sensitive species such as birds of prey (northern goshawk, spotted owl, nesting peregrine falcons). By identifying heli-sport activities that are temporally separated from seasonal habitat use by wildlife, it is possible to further avoid adversely impacting wildlife.

### Wildlife Sightings, Heli-biking - Wildlife Avoidance Protocol Summer:

Grizzly bear and wolverines are often only noticed when the animals leave tracks or other obvious signs that are apparent to human observers. If there are tracks indicating an animal's use of the area, then a 24-hour no-activity restriction and a 500 m buffer is placed on the location (MOE, 2006). This allows the family group or individual to leave the area without disturbance.

Summer sightings of grizzly bear females with cubs results in activity restrictions at the sighting location, and again FLNRO is contacted to assist in determining the nature and extent of restrictions.

The following wildlife sightings/encounters are of highest priority. They require the immediate application of WARP and a no-activity policy for the time period indicated pending retraction by MOE biologist(s) or their designate:

- Wolverine female and kits not associated with den site – 1 week
- Wolverine female and kits near den site – season-long if den is confirmed by FLNRO biologist or their designate.
- Grizzly bear sow and cub – 48 hour; if second sighting then 1 week
- Grizzly bear den site – no human intrusion or disturbance 15 Sept to 15 June
- Early emergent post-hibernation grizzly bear or lone grizzly bear – 24 hour
- Goat nannies and kids – 48 hour

Considering the lack of current information regarding mountain goats, BH believes that an adaptive management approach with avoidance are the most important elements in the mitigation of possible negative impacts from disturbance to wildlife populations or individuals by commercial backcountry recreation activities in the BH operating areas. BH proposes an adaptive management policy that identifies potential conflicts, and the potential outcomes of each conflict. Each outcome results in a recommendation or series of recommendations that are specific to each situation.

BH reports observable environmental changes, and works together with provincial government staff and others to ensure that wildlife and habitat protection are met through adherence to the MOE Wildlife Guidelines for Backcountry Tourism/Commercial Recreation in British Columbia (2006). This proactive approach avoids unmanageable disturbance.

## **5 Socio-Community**

### **5.1 Land Use**

#### **5.1.1 Government Administrative Jurisdiction**

The operating areas are located within the Squamish-Lillooet Regional District (SLRD). For the purposes of commercial recreation, the operating areas fall partially within the administrative area of the Lower Mainland Region and the Southern Interior Region of Ministry of Forests, Lands and Natural Resource Operations (FLNRO) and Ministry of Environment (MOE). In addition, the operating areas fall partially within the Squamish Forest District. BH's base area located at the Pemberton Airport is within the jurisdictional boundaries of the Village of Pemberton, while the Whistler Heliport falls within the RMOW.

There are no zoning requirements associated with heli-recreation operations in the SLRD area. The operating areas are currently unsurveyed Crown Land zoned Rural - Resource Management Subzone (RR1RM). This zoning under Electoral Area C Zoning Bylaw 765, 2002 Section 5.3 allows for motorized open land commercial recreation excluding: buildings and structures, and aircraft landing facilities used for commercial purposes (SLRD, 2003). Ancillary buildings or staging areas may require rezoning within the SLRD.

The Pemberton Airport private land is owned by the Village of Pemberton and is zoned Airport (AP-1). This zone applies to land used for the operation of the airport and ancillary uses. The improvements to the base of operations at the Pemberton airport adhere to the zoning as Helicopter Operation is a permitted land use under Village of Pemberton Zoning Bylaw No. 466, 2001 Section 315.1 (Village of Pemberton, 2012).

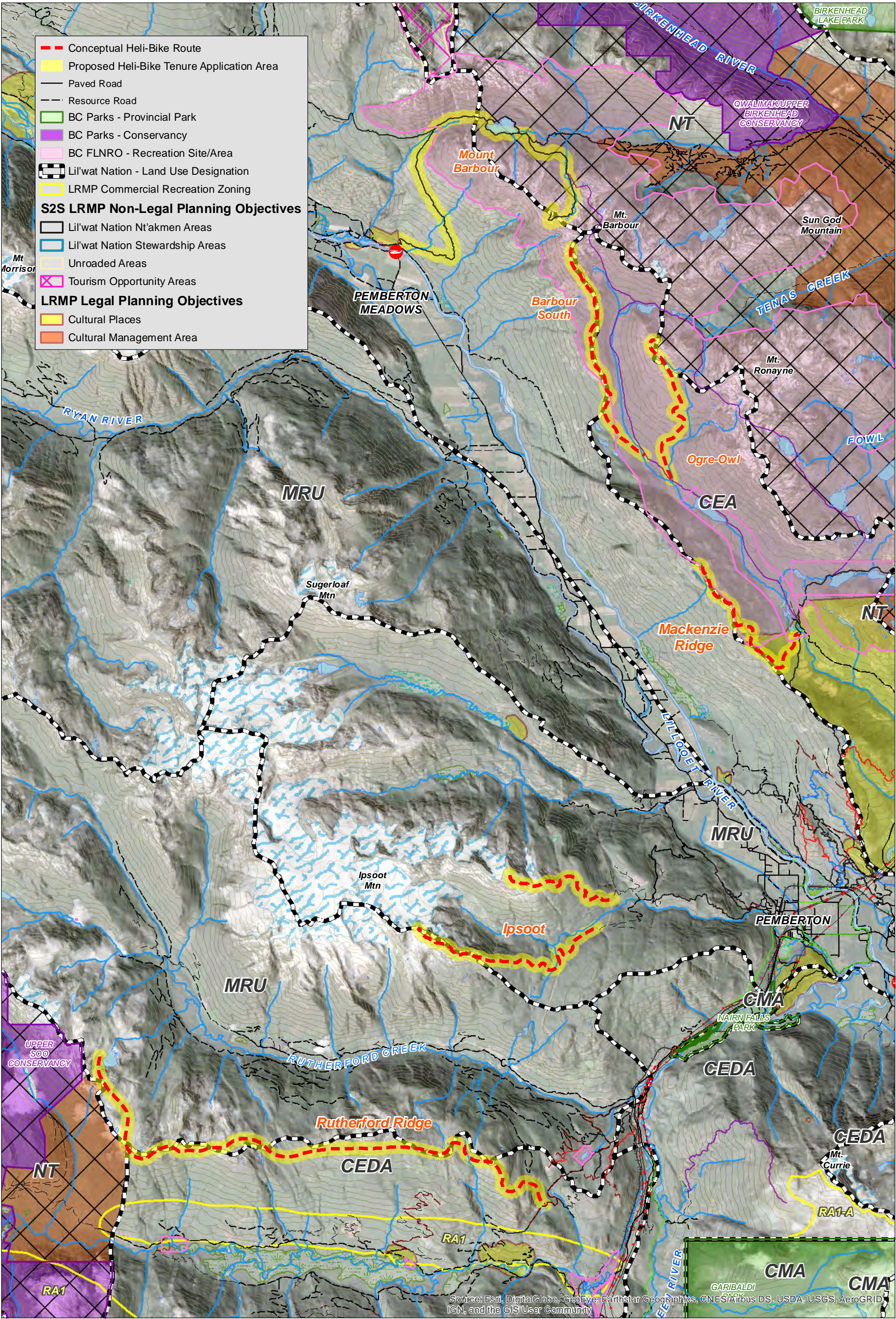
#### **5.1.2 Land Management Plans and Regional Growth Strategies**

##### **5.1.2.1 Regional Land Use Plans**

Blackcomb Helicopters heli-bike tenure application meets the management direction for each Crown Land Reserve overlap. Wildland #6-Qulimak/ Upper Birkenhead and Wildland #8-Skeluatkwa/ Owl Creek both specify motorized access and use is not permitted except for the pre-existing tenures and uses. Blackcomb Helicopters holds pre-existing tenure in the Wildland Zones and will continue consultation with First Nations on the activity's and land use within all identified LRMP areas.

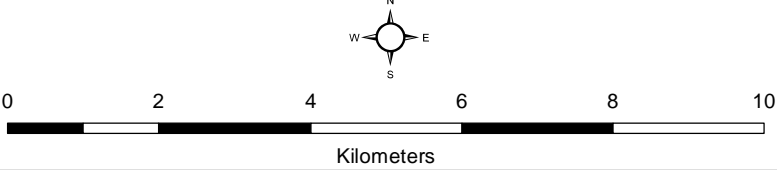






Map 4 - Land Use

Heli-Biking Tenure Application  
Blackcomb Helicopters  
Pemberton, British Columbia



GIS Cartographer: Todd Hellinga  
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Orthophoto/Data: ESR/BC Gov





