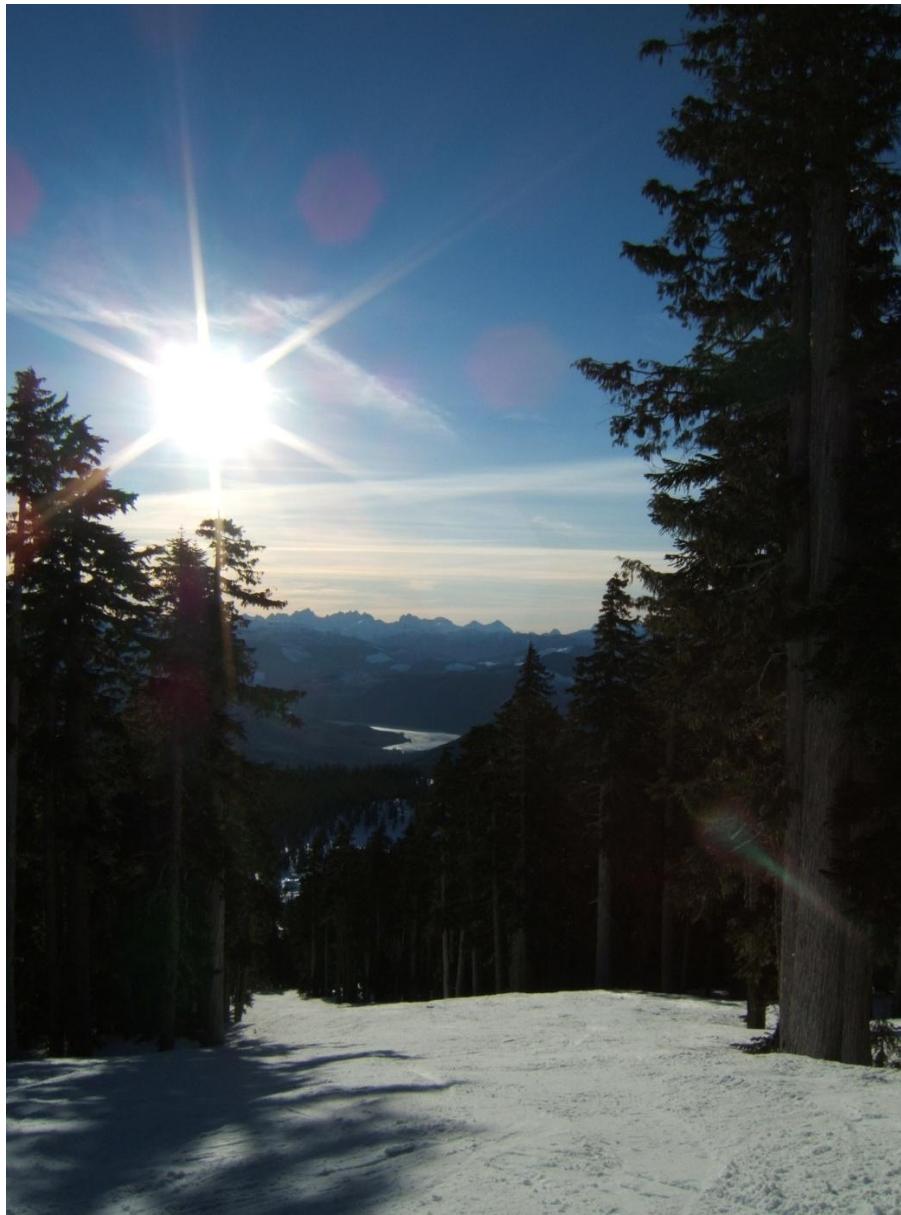


# **MOUNT CAIN SKI AREA**

## *2010 Master Plan Update*



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## **Executive Summary**

### **Introduction**

The Resort Development Branch has worked collaboratively with the Mt Cain Alpine Park Society (MCAPS, ski area operator) and the Regional District of Mt. Waddington (RDMW, Operating Agreement holder) to prepare the Mt. Cain 2010 Ski Area Master Plan Document. This update identifies existing developments on the land, proposes further improvements to the ski hill to support its continued sustainability and will permit RDB to review MCAPS's request for greater land tenure security for 52 recreational cabin owners at Mt. Cain. This summary document identifies the key improvements and associated tenure revisions contained within the *Mount Cain Alpine Recreation Area Development Master Plan Update* and the *Mt. Cain Alpine Park Society Five Year Ski Hill Development Plan 2009-2013* documents for the purpose of agency, First Nation and stakeholder referral and consultation. Referral and consultation with interested parties has been undertaken in order to identify specific interests, potential negative impacts and issues of concern.

The Resort Development Branch has worked with engaged parties throughout the master plan review process to identify further changes and mitigation strategies to address potential negative impacts from the proposed changes in the Master Plan Update and to incorporate others' interests to the extent possible.

Resulting commitments and assurances have been incorporated into Appendix E, Summary of Commitments and Assurances and the Draft Mt. Cain Operating Agreement.

### **Project Vision**

The Mt. Cain Ski Area has operated under the management of MCAPS, a non-profit, volunteer driven society, for over thirty years (since 1977) with the focus of providing affordable, family-oriented alpine skiing opportunities in northern Vancouver Island. MCAPS and RDMW wish to continue to operate the Mt. Cain Ski Area for the enjoyment and benefit of the communities of the North Island while addressing operational, environmental and infrastructure issues and constraints to increased skier visitation.

The RDMW and MCAPS also wish to expand recreational opportunities in adjacent areas, including the area north to Mt. Hapush and the West Bowl. The creation of a regional four-season recreation area would offer a broader range of recreation activities including skiing, snowshoeing and Nordic skiing in the winter months and hiking and climbing during spring, summer and fall. It would also create a year round presence at the ski hill which would then offer improved security and management of the ski area improvements and surrounding sensitive alpine ecosystems. RDB has advised that for the purpose of this master plan review, RDB will limit its review to improvements and revisions specific to the lift-based ski area and that an application for the proposed park establishment in the adjacent areas would be separate and under the jurisdiction of the Integrated Land Management Bureau.

### **General Overview of Business**

Mount Cain Ski Area is managed and operated by the Mount Cain Alpine Park Society (MCAPS), a registered non-profit society, which operates largely on volunteer labour and donated resources. The ski area is operational on weekends and holidays from December through to early April depending on snow accumulations. Situated on the north end of Vancouver Island, Mount Cain offers a unique experience to skiers, snowboarders and backcountry explorers. Mt Cain primarily draws clientele from communities in northern and central Vancouver Island. It is Vancouver Island's only community owned and operated ski-hill and offers the following winter recreation opportunities:

- 18 ski runs from novice to expert;
- food and beverages available on the main floor of the day lodge;
- hostel style accommodations on the upper levels of the day lodge;
- two rental cabins and a group accommodations building;
- ski/board/snowshoe equipment rentals, sales and service offered at the ski shop;

- a ski school offering skiing and snowboarding lessons and packages with equipment rental for beginners;
- and, although it is not encouraged due to avalanche and terrain hazards, access to backcountry skiing and boarding opportunities outside of the patrolled Controlled Recreation Area are very popular.

The proposed improvements and tenure revisions described within this document and the attached documents are required to further ensure the sustainability of the Mt. Cain Ski Area operation for the benefit of the communities of northern Vancouver Island.

## **Section 1: Description of Existing Operation**

### **1.1 Description of Experience/Activities Being Offered**

The Mount Cain Ski Area is managed and operated by the Mount Cain Alpine Park Society, a registered non-profit society, which operates largely on volunteer labour and donated resources through an agreement with the Regional District of Mount Waddington. The ski area is operational on weekends and holidays from December through to early April depending on snow accumulations.

Situated on the north end of Vancouver Island, Mount Cain offers a unique experience to skiers, snowboarders and backcountry explorers. Mt. Cain offers visitors a rustic, community focused ski experience set in the stunning viewscapes of Vancouver Island. The ski area primarily draws clientele from communities in northern and central Vancouver Island although it is becoming more widely known with ski enthusiasts for the unique ski experience it offers. It is Vancouver Island's only community owned and operated ski-hill and offers the following winter recreation opportunities:

- 18 patrolled ski runs from novice to expert;
- food and beverages available on the main floor of the day lodge;
- hostel style accommodations on the upper levels of the day lodge;
- two rental cabins and a group accommodations building
- ski/board/snowshoe equipment rentals, sales and service offered at the ski shop;
- ski school offers skiing and snowboarding lessons and packages with equipment rental for beginners;
- and, although it is not encouraged due to avalanche and terrain hazards, access to backcountry skiing and boarding opportunities outside of the patrolled Controlled Recreation Area are very popular.

### **1.2 Base Operation and Existing Improvements**

Existing improvements in the ski hill's base area include:

- a 3-storey lodge housing a ski shop, restaurant and hostel style accommodation for up to 18 people (1405887 Base Area Lease);
- 52 developed cabins managed by MCAPS (1401800 License of Occupation);
- 2 rental cabins (located immediately outside of the 1405887 Base Area Lease);
- original works shop (1405887 Base Area Lease);
- new maintenance shop (located partially outside of the 1405887 Base Area Lease);
- new works shop (located partially outside of the 1405887 Base Area Lease);
- day visitor parking lot (1405887 Base Area Lease);
- RV/overnight parking lot (located partially outside of the 1405887 Base Area Lease);
- lift ticket office (1405887 Base Area Lease);
- a new staff, hostel-style accommodations building (1405887 Base Area Lease);
- and a washrooms building (1405887 Base Area Lease).

Some existing improvements have been located on, or immediately outside of, the base lease tenure area boundary as noted in the summary above. Those include the two existing rental lodges, the overnight/RV parking and the new maintenance building. This was identified during a preliminary mapping review done by RDB and was in part why RDB has required a more comprehensive Master Plan Update process to address a number of tenure irregularities.

The cabin colony at Mount Cain was developed in order to establish on-site accommodation to support the visitation, operation, security and management of the ski area facilities. Due to the remote location of the ski area and the travel time required to access it from communities in the North Island, on-site recreation residential accommodation was needed. 52 privately owned ski-in/ski-out cabins currently exist at Mt. Cain and are classified as recreational residential or season residence. The cabins are on a shared License of Occupation tenure. The cabins are accessed by two branch roads which commence from the main ski hill access road, downhill from the day-visitor parking. The cabins are privately owned and managed by an

agreement between MCAPS and the cabin owners. MCAPS also administers license fee payments and compliance and enforcement of the Sewage Treatment Services Agreement.

MCAPS has recently finished the construction of a new staff, hostel style accommodation building and ticket/administration building within the base lease tenure area. These new buildings replace several old buildings which were becoming difficult to maintain and unsuitable for accommodation. A new machine maintenance building with a concrete floor was also constructed to support ski area operations and to provide improved catchment for heavy duty maintenance activities. Further base area improvements include the removal of several derelict buildings and abandoned personal property from the overnight parking area. A sewage holding tank has been installed for the collection of waste from overnight visitors staying in the RV parking area.

RDB has advised MCAPS and RDMW that the base area lease tenure would need to be expanded to incorporate these recreational infrastructure improvements and that boundary locations will need to be confirmed prior to construction of new base area facilities.

### **1.3 Mountain Operation and Improvements**

Existing improvements in the ski hill's Mountain Area include:

- 18 runs/trails (1405886 Trails License of Occupation);
- 2 T-Bar lift systems and a Beginner's Handle Tow (1405885 Lifts Statutory Right-of-Way)
- Nordic skiing/snowshoe trails (untenuered and outside of CRA)

Preliminary mapping of ski area tenures and existing improvements done by RDB in 2007 identified a discrepancy between the western portion of the 1405885 Statutory Right-of-Way and the actual T-bar/lift location. RDB has advised MCAPS and RDMW that the location of 1405885 SRW will need to be reconciled with the actual location of the lift.

### **1.4 Existing Tenures**

Table 1 – Tenure Summary

File No.	Tenure Type	Purpose	Area (ha)	Tenure Holder
1401800	License	Cabin Sites	10.79	MCAPS
1405885	Statutory Right of Way	Ski lifts	2.321	RDMW
1405886	License	Ski trails	24.431	RDMW
1405887	Lease	Day lodge, parking lift & equipment maintenance	2.18	RDMW
1412577	Operating Agreement	Framework for all tenures within Controlled Recreation Area (CRA), includes license of occupation	107.7	RDMW

\* See *Figure 2: Land Act Interests Map in Appendix A*.

### **1.5 Access**

Mt. Cain is located in Northern Vancouver Island, approximately 75 km north-west of Sayward and half-way between Campbell River and Port McNeill. Mt. Cain is accessed from Highway 19 via Western Forest Products (WFP) Road Permit R05407. MCAPS currently holds a road use agreement with WFP to allow for public access and maintenance of the ski hill access. The initial segment of road access from the junction of Highway 19 is also shared access with Schoen Lake Park. The 'Namgis First Nation currently participates in the operation and maintenance of the park.

Beyond the gravel road junction to Schoen Lake, the forest road access to Mt. Cain is maintained by the mountain's maintenance department and assisted by WFP which holds Tree Farm License 37, situated immediately adjacent to the Mt. Cain Controlled Recreation Area. While WFP is supportive of the ski area and

provides ski area access through a road use and maintenance agreement with MCAPS, it is limited in its ability to maintain the road in an operational state outside of active forestry operations windows. WFP has committed to work with MCAPS and the RDMW to ensure that public access to Mt. Cain is maintained.

MCAPS has advised RDB that Mt. Cain is the only community ski area in the province which does not receive assistance from Provincial or Local Government to maintain its road access. A significant amount of the ski area's operational budget is dedicated to maintain road access, primarily snow clearing, during winter months. MCAPS and RDMW would like to pursue some form of assistance from The Province or Local Government to maintain its road access.

RDB has had preliminary discussions with the MOTI about the possibility of assisting the ski area with road access maintenance. Several issues prevent MOTI from providing road maintenance assistance including:

- The Mt. Cain road access is a forest road permit under WFP Tree Farm License and not a public road.
- The Mt. Cain road access is of a forest road standard which does not comply with public road standards.
- MOTI's road service contractor is not insured to operate on TFL roads.
- MOTI does not currently have the resources to undertake additional road maintenance for the ski area.

RDB preliminary mapping identified an unclassified/non-status section of the Mt. Cain access road between the point of termination of WFP's road permit and the CRA boundary. The section of road is approximately 900m long, is located within WFP's TFL and is maintained consistent with the terms and conditions of the road use agreement.

In October 2009, MCAPS facilitated the grading of the initial 3.5 kilometers of the Western Forest Products forest road permit which was heavily pot-holed and posed an immediate hazard to road traffic. Continued road improvements and maintenance are anticipated and expected to represent a substantial portion of MCAPS's annual operating budget.

## 1.6 Servicing

### **Water:**

The Mt. Cain Day Lodge Restaurant and base area facilities are currently supplied by Ultra Violet treated water which is derived from a water reservoir located adjacent to the bunny hill. The reservoir is supplied by overland sheet flow from the ski area catchment and does not require a water license, as confirmed with the Ministry of Environment, Water Stewardship Division. While the existing system has met day lodge demand, it is recognized that additional water supply will be required to facilitate the proposed facility improvements in the base area.

The Drinking Water System Emergency Response Plan has been developed to ensure that the base area water supply meets the applicable water standards as administered by Vancouver Island Health Authority. See Appendix C for the Mt. Cain Alpine Park Lodge Drinking Water System Emergency Response Plan.

Water for the cabins is brought in by the cabin occupants or it is attained from an existing standpipe located on the hill. The water supplied by the standpipe is not treated and intended for washing purposes only. This is indicated by signage posted at the standpipe location.

### **Sewer:**

Until recently, pit privies were the only means of dealing with septic waste at the ski area. Several years ago, Vancouver Island Health Authority (VIHA) requested that pit privies be phased out. Since then, composting toilets were installed in a new public washroom building by the day lodge and holding tanks were installed by the cabin owners and for the overnight parking area. While the composting system is adequate for the day lodge and current skier visitation, it is recognized that upgrades will be necessary if the ski area facility is expanded and skier visits grow.

VIHA has issued an order requiring cabin owners to install 4500-litre holding tanks for each cabin. MCAPS has confirmed that all of the cabins have complied with the VIHA order. All private cabin owners are now required to be a party to the Cabin Area Sewage Treatment Services Agreement, completed by MCAPS subsequent to the VIHA holding tank order. The Sewage Treatment Services Agreement requires all cabin

owners to ensure that their tanks are pumped out yearly and the waste hauled away. Under the agreement, a local sewage hauler disposes of the waste at the RDMW Hyde Creek Treatment Facility. MCAPS indicates a new agreement needs to be signed with the hauler and that the existing outhouses need to be decommissioned.

**Electrical:**

Electricity is currently produced by a large diesel generator located in the maintenance shop in the base area. It is 'backed up' by another generator in case of failure. Electricity has been routed to the lower lift and will be routed to the upper lift in the future.

No electrical power is supplied to the recreational residential cabins and there are no plans to connect Mt. Cain to hydro due to the projected cost of constructing a transmission line.

## 1.7 Ski Area Capacity and Skier Visits

Mt. Cain draws skiers and boarders primarily from northern Vancouver Island including the communities of Port McNeil, Port Hardy, Woss, Zeballos, Tahsis, Sayward, Campbell River and Courtenay. Mount Cain has maintained a steady visitation of approximately 7,000 to 8,000 annual skier visits for the last 9 seasons. In 2004-2005, however, insufficient snow accumulations prevented the ski area from operating which caused significant financial pressure on MCAPS. While visitation has remained flat, Mt. Cain is increasingly becoming known for its unique ski opportunities and family oriented experience. It is expected that skier visits will grow due to the market niche Mt. Cain occupies and as more accommodation becomes available.

*Existing Capacity Estimation:*

The two existing T-bar lifts and handle tow at Mount Cain have a combined skier/boarder carrying capacity of approximately 1500 skiers per hour. The ski terrain and lifts combined have a comfortable carrying capacity of approximately 700 skiers per day. While lifts and terrain could accommodate up to 20,000 visits per year, base area facilities, including parking and day lodge, are currently at capacity and will constrain significant future skier visit growth.

*Skier Visits:*

YEAR	CALCULATED VISITS*
2000-2001	8,137
2001-2002	9,668
2002-2003	6,775
2003-2004	8,618
2004-2005	0 (Ski area did not open due to insufficient snow)
2005-2006	7,911
2006-2007	8,210
2007-2008	9,171
2008-2009	7,300
2009-2010	10,000

\*Calculated visits based upon ticket sales plus season-pass visit formula

These numbers are also reflective of the number of operating days per year. For example 2007-2008 there were 50 operating days while 2008-2009 there were only 38.

Nordic Ski/Snowshoe trail visitation and capacity have not been included within these visitation figures above because the trails are untenured, unmanaged and for the most part, outside of the Controlled Recreation Area.

## **Section 2: Overview of Proposed Expansion**

### **2.1 New Operating Agreement and Future Expansion Area**

The updated Master Plan serves to outline the short and long term goals of the resort, and if approved will allow the ski hill to move towards a new Operating Agreement with the Province.

A new Operating Agreement (OA) will provide for the following:

- 30 year tenure term, which was previously 20 years
- The ability for the resort to conduct recreation activities year round on the land, rather than being restricted to the winter ski season
- Provide the resort operator with the ability to directly authorize other commercial recreation uses consistent with the objectives of the Resort Master Plan, which were previously tenured independently.
- Updated language and improved clarity of rights, limitations, conditions, etc. conveyed through the agreement.

While no significant expansion of mountain, base or residential areas are being contemplated, MCAPS and RDMW would like to allow for the modest expansion of recreational and residential improvements to further ensure the sustainability of the Mt. Cain Ski Area. Small area expansions are required for base area improvements (RV parking area, new maintenance shop, and rental lodges), recreational infrastructure (Nordic Ski Trails) and to reconcile the Controlled Recreation Area with the area deleted from the Provincial Forest in 1986. See *Appendix A, Figure 2 - Land Act Interests Map*.

The Mt. Cain Alpine Park Society Five Year Ski Hill Development Plan 2009-2013 and the Mount Cain Alpine Recreation Area Development Master Plan (May 23, 2008) identify proposed improvements and changes for Mt. Cain for the five year period from 2009 to 2013 and for longer term changes which include an expanded, all-season regional park concept. See those documents for detailed information related to the proposed five year improvements and the long term vision of Mt Cain.

MCAPS has advised that the proposed five year improvements are contingent on funding opportunities, available resources, further detailed planning and the successful completion of the master plan update process and associated tenure revisions. Due to the uncertainty of the timing and funding of improvements, RDB recognizes that MCAPS's and RDMW's prioritization of improvements will be based on:

- Address safety issues;
- Address immediate environmental priorities;
- Compliance with law, regulation, and agreements;
- Address operational requirements;
- Provide additional skier capacity and accommodation.

#### *Existing and Proposed Controlled Recreation Area (CRA):*

The existing Controlled Recreation Area (CRA) is 107.7 ha and is located within a Provincial Forest Deletion Area of approximately 168 ha. The CRA was established with the finalization of the existing Operating Agreement in 1989 and is not consistent with the Provincial Forest Deletion Area, established previously by Order in Council in 1986. RDB would like to expand the CRA by approximately 40ha within the Provincial Forest Deletion Area in order to allow for the inclusion of the existing and proposed improvements, including existing Nordic ski trails, the cabin development area, Mistaken Lake and other base area facilities. The proposed CRA expansion will also allow for future base area expansion if required.

See *Appendix A, Figure 5 – Proposed Land Act Tenure Revisions Map*.

### **2.2 Base Improvements**

A number of base area improvements are being proposed for the ski area to facilitate improved skier experience, increased visitation and improved maintenance and operating facilities. Additional parking,

maintenance/operations areas, staff and rental accommodation and skier day services will be required. Water, sewer and further electrical upgrades will also be necessary to support increased visitation.

*Ski Shop and Day Lodge:*

MCAPS has advised that they intend to prepare a plan to relocate and upgrade the ski shop and day lodge in 2011 with construction targeted for 2012/2013. The relocation of the ski shop and day lodge will be within the base area lease tenure.

*RV Park:*

MCAPS has advised that they intend to develop and implement an RV Park Management Plan in 2010 to ensure the overnight/RV parking area is maintained and improved in a manner which further supports the growth of visitation at the ski area and ensures that health, safety and environmental requirements are satisfied. The base area lease will be expanded to include the entire overnight parking area.

*Day Visitor Parking:*

Current day visitor parking capacity is estimated to be approximately 100 vehicles and occupies an area of approximately 0.8ha within the base area lease tenure. It has been noted that parking does fill up at times and the RV/overnight parking area is utilized as overflow for day visitors. MCAPS has identified the need to increase parking capacity for both day use and overnight visitors to address peak periods when they are over capacity.

MCAPS will undertake a parking upgrade and road realignment plan in 2010 and will commence upgrades/plan implementation in 2011/2012. Day use parking improvements may be located west of the existing day use parking lot along the Mt. Cain access road as identified within the D.R. Matthews' Mt. Cain Ski Area Conceptual Master Plan (2000). Final parking improvements will be proposed once the plan is completed. RDB notes that parking relocation and upgrades may necessitate further expansion of the RDMW base area lease tenure.

*Cabin Colony:*

MCAPS has requested the approval of additional cabin sites in the existing cabin area and has confirmed with Vancouver Island Health Authority that they are agreeable to having additional cabins under the Sewage Treatment Services Agreement.

Due to the remote location of Mt. Cain, it is recognized that the availability of on-mountain accommodation supports skier visits, revenue generation and increases MCAPS volunteer resources which support ski area operations. RDB has advised MCAPS and RDMW that it will consider a detailed MCAPS/RDMW proposal for an additional 5 cabins within the cabin area after a Master Plan and Operating Agreement decision has been made.

*'Namgis Area of Interest*

RDB has entered into a Memorandum of Understanding with the 'Namgis First Nation which will allow for a 'Namgis Community Use Nominal Rent Tenure (NRT) of approximately 1.74 ha. This tenure is recognizes 'Namgis interests including recreation, tourism and land development at Mt. Cain and will facilitate the 'Namgis development of up to five community use cabins on the NRT.

## **2.3 Mountain Improvements**

Several mountain improvements are planned for Mt. Cain which will improve the skiing experience and safety of the ski area. The proposed Mountain Improvements include:

- bunny hill upgrade and relocation;
- cross country ski trails;
- Lift L3 bottom terminal and traverse trail relocation.

*Bunny Hill Upgrade and Relocation:*

The bunny hill upgrade and relocation is required to improve the skiing experience and safety of the bunny hill for beginner and novice skiers and boarders. MCAPS will undertake an engineering report and relocation plan in 2011 to facilitate the relocation. The implementation of this plan is targeted for 2012.

#### *Nordic Trails:*

MCAPS wishes to undertake a cross-country (Nordic) ski trail plan for Mt. Cain to improve the Nordic experience and increase recreational opportunities available at the ski area. Trails currently exist in the Mistaken Lake area, uphill of the cabin colony and in the adjacent West Bowl however these trails are not actively managed or maintained by MCAPS due to limited resources and their untenured status. The trails have existed for approximately thirty years and are heavily used by Nordic skiers, backcountry enthusiasts and snowshoers.

The Nordic trails within the Mistaken Lake area have been identified to be included within the expanded Controlled Recreation Area. MCAPS has targeted 2011 for the completion of the Nordic plan and will commence implementation afterwards depending on available resources and the improvements identified within the plan.

#### *Lift L3 and Traverse Trail Relocation:*

MCAPS has identified the need to lower the bottom terminal of Lift L3, the uphill/eastern T-bar, to improve skier/boarder access. The bottom terminal of Lift L3 is currently located too high in elevation which does not allow for a sufficiently steep grade to move skiers and boarders into the loading area. The downhill relocation of the bottom lift terminal will facilitate the relocation and ‘steepening’ of the traverse trail to improve skier and boarder movement into the lift loading area.

## **2.4 Proposed Tenure Revisions**

Listed in order of priority of execution, the proposed tenure revisions include:

- Replacement of the existing Operating Agreement (OA) for an extended 30 year term;
  - Includes the issuance of a blanket Licence of Occupation for recreational infrastructure within Controlled Recreation Area (CRA) as included within the new OA template;
  - Other ‘house-keeping’ tenure boundary revisions required to adjust the CRA boundary to incorporate existing improvements and to be consistent with the Provincial Forest deletion area.
- Conversion of an existing License of Occupation for recreational cabin purposes to 52 individual recreational cabin Leases. Issuance of a Nominal Rent Tenure within the ‘Namgis Parcel of Interest to the ‘Namgis First Nation for Community Use and cabin development.
- Expansion of the Base Area Lease for recreational infrastructure improvements including maintenance facility, RV parking and sani-dump facility, day visitor parking, day lodge improvements;
- Consideration of up to 5 additional cabin sites (Lease lots).
- Modification of existing Statutory Right-of-Way to lengthen upper lift area to accommodate proposed extension.
- Establishment of a Section 16 Map Reserve over ‘Namgis First Nation Area of Interest.

See Appendix A, Figure 5 – *Proposed Land Act Tenure Revisions Map*.

Table 1 – Summary of Proposed Tenure Revisions (See *Figure 5 – Proposed Land Act Tenure Revisions Map*)

File No.	Tenure Type	Area (ha)	Estimated Revised or New Area (ha)	Proposed Revision to Tenure
1412577	Operating Agreement	107.7	148.8	Conversion of existing OA to new OA template. Includes blanket licence for ski area infrastructure/access, 30 year term and year round authority.  Controlled Recreation Area to be expanded within Provincial Forest Deletion Area to include existing improvements (ie. Cabins, Nordic ski/snowshoe trails) and Mistaken Lake.
1401800	Licence to Lease	10.79	6.0	Conversion to individual Lease tenures;

	Conversion			Proposed 'house-keeping' boundary revision
TBD	Nominal Rent License	NA	1.74	For the purpose of 'Namgis First Nation Community Use and development of up to 5 community use cabins.
1405887	Lease Modification	2.18	5.0	Expansion to include existing rental cabins by lake, new maintenance shop, parking and road access improvements, day lodge improvements, water, sewer and electrical upgrades.
TBD	Section 16 Map Reserve	NA	9.47	Map Reserve will be placed over Controlled Recreation Area expansion area south of main access road and west of Mistaken Lake, consistent with 'Namgis Area of Interest. Map Reserve will be for the purpose of Ski Area Planning and recognition of First Nation interests.

## 2.5 Access Upgrades

Improvement of road access to Mt. Cain will further support the sustainability of Mt. Cain as a community ski area by enhancing the safety and ease of access for the visiting public and MCAPS members. Access upgrades will need to be done in cooperation with Western Forest Products, the current road permit holder, and other stakeholders including RDMW, the Ministry of Transportation and Infrastructure (MOTI), BC Parks and the 'Namgis First Nation.

RDB preliminary mapping identified an unclassified/non-status section of the Mt. Cain access road between the point of termination of WFP's road permit and the CRA boundary. The section of road is approximately 900m long, is located within WFP's TFL and is maintained consistent with the terms and conditions of the road use agreement. A new tenure may be required to 'legalize' this section however, it is outside the jurisdiction of RDB and may require application to MNRO, West Coast Region.

WFP wishes to maintain its road permit to ensure access to future harvest opportunities and silviculture sites. WFP's maintenance and upgrade of the Mt. Cain access road will be dependent on the frequency and nature of their operations. WFP currently supports the Mt. Cain Ski Area by providing access and maintenance privileges through a Road Use Agreement. WFP benefits by having MCAPS members monitor and maintain the road access within their Tree Farm License.

MCAPS has recently undertaken the grading of initial sections of the road access which had become seriously deteriorated (potholed) in recent years in advance of the fall and winter weather. Winter and snow clearing maintenance operations, which represents a significant portion of the MCAPS operating budget, will commence shortly. MCAPS has advised that they will continue to seek financial and resource assistance from public agencies to alleviate the financial impact of their road maintenance operation.

Winter access is currently considered sufficient based on the current winter maintenance program. While it is likely there will not be any significant programmed road improvements other than current road maintenance completed in the near future. It is nonetheless, with or without improved or expanded facilities, a priority.

Upgrades will be essential to the proposed expansion of Mt. Cain as a four-season recreational area. While winter road access and maintenance can be readily and efficiently achieved with a compacted snow base, spring rains and snow melt hamper maintenance efforts in the spring, summer and fall. This could be exacerbated by increased road traffic due to increased visitation.

To support future growth in visitation, a summer road maintenance program and winter road design will be undertaken by MCAPS. As a future initial step MCAPS and the RDMW should cost-share in the preparation of a road and traffic analysis that identifies road conditions, priorities for immediate, short and long term improvements and costs to meet current use needs for Mt. Cain.

Subsequent to completion of the road and traffic analysis, MCAPS and the RDMW should establish their priorities and seek and obtain funding to implement the priorities of the study.

Construction of road improvements should take advantage of local experience and provide employment to area residents. MCAPS will explore possible synergies to improve road access to recreation areas with the 'Namgis First Nation given the shared access with Schoen Lake Park and Mt. Cain.

## **2.6 Servicing**

### *Water, Sewer and Electrical:*

MCAPS has identified the need for the improvement of water and sewer system upgrades for the Day Lodge and other base area improvements in order to ensure it meets Health Standards as advised by the Vancouver Island Health Authority (VIHA) and the Ministry of Environment. MCAPS undertook Water and Sewer Upgrade planning in 2010 and will commence upgrades in 2011 in conjunction with other base area improvements, with completion targeted for 2012. Recent and planned electrical upgrades completed in the base area will facilitate future water and sewer system and other operational improvements.

## **2.7 Projected Capacity and Skier Visits**

While visitation has remained relatively unchanged over the past decade, approximately 7000 to 10000 skier visits per year, RDB expects increased visitation in the future. Mt. Cain is increasingly becoming known for its unique ski opportunities and rustic, family-oriented experience which is an alternative to larger, resort-style ski areas. It is expected that Mt. Cain will increase annual skier visits within this market niche and the provision of increased accommodation availability and utility infrastructure will support its continued growth. The Master Plan Update includes infrastructure improvements which will facilitate increased recreational opportunities, improved skier experience and moderate growth in ski area visits, utilizing existing mountain carrying capacity.

## 2.8 MCAPS' 2011 – 2015 Five Year Development Plan

Focus	2011	2012	2013	2014	2015
<b>Accommodation, Public</b>				Develop plan for rental cabins	Build new rental cabins
<b>Accommodation, Staff</b>		Include in new lodge plans			
<b>Bunny Hill</b>	Engineering report for bunny hill upgrade/relocation	Begin bunny hill relocation and upgrade			
<b>Cross Country Ski Trails</b>			Develop a cross country trail plan		
<b>Electrical Station</b>	Continue with overhaul of the electrical station and power generator	Continue with overhaul of the electrical station and power generator	Complete overhaul of the electrical station and power generator		
<b>Human Resources Management</b>		Create a plan for human resources management and acknowledgement			
<b>Lifts</b>	Continue Capital upgrade T-bars, rope tow, sheaves assembly & spring boxes.		Engineering done in order to increase lift capacity	Increase lift capacity and add Ts	
<b>Lodge</b>		Develop plan for lodge update/replacement		Develop lodge replacement plan	Construct new lodge
<b>L3 Lift Station</b>		Engineering report done for lowering L3	Implement lowering of L3		
<b>Maintenance Building</b>	Replace shack at L4				
<b>Park Boundaries</b>	Seek CRA boundary extension to include Mistaken Lake & West Bowl				

<b>Parking Lot</b>	Plan parking lot upgrade	Upgrade of parking lot completed.		
<b>Road</b>	Develop plan for road upgrade	Begin road upgrade	Continue with road upgrade	Complete road upgrade
<b>Road Grader/14G</b>	Grader upgrade	Grader upgrade	Grader upgrade	New Grader
<b>Groomers</b>	Maintenance	Maintenance	Maintenance	Maintenance
<b>RV Park</b>	Develop and implement RV park management plan			
<b>Sewage System</b>	Develop Sewage System upgrade plan and start upgrade	Continue with sewage system upgrade	Continue with sewage system upgrade	Complete sewage system upgrade
<b>Ski Shop</b>	Plan ski shop relocation/upgrade Lodge plan/separate building			
<b>Ticket Booth</b>				
<b>Water System</b>	Plan for water system upgrade			
<b>Master Development Plan</b>	Update DRAFT Master Development Plan	Review and replace Plan		
<b>Equipment Purchases</b>	Purchase new snowmobiles			Purchase new snowmobiles
<b>Ski Patrol</b>	Plan for First Aid Upgrades include in sewer and water plans	Upgrades to ski patrol	Upgrades to ski patrol	Upgrades to ski patrol

## **2.9 Economic Benefits**

Mount Cain currently employs approximately 25 - 30 seasonal staff and will require additional staff as skier and winter recreation visits grow. Two full time and four extended term seasonal jobs were also involved in the recent construction of staff accommodations.

Other economic benefits related to the operation of Mt. Cain include:

- construction & trades jobs;
- benefits to local tourism operators, B&Bs, restaurants, sporting goods retail, rental and supply, gas stations, motels, etc;
- potential alignment with 'Namgis First Nation Tourism Strategy Objectives.

### **2.9.1 Opportunities and Constraints**

The physical aspects of Mount Cain offer many opportunities for recreational development and expansion. A four-season, regional resort concept has been developed by D.R. Matthews in two conceptual master plans completed in 1990 and 2000, based on the Commercial Alpine Ski Policy. While these master plans identified the site's substantial capacity as a regional resort, neither was formally adopted by the RDMW and Mt. Cain continues to operate based on a community, family-oriented ski area concept within the same historical ski area.

Both the Regional District of Mount Waddington and the Mt. Cain Alpine Park Society wish to expand recreational opportunities in and around the ski area while maintaining the community/family orientation of the ski area. Expansion of the regional park designation area north to Mt. Hapush and the West Bowl would create a regional four-season recreation area that would include skiing, snowshoeing and other winter activities and hiking and climbing during spring, summer and fall. It would also create a year round presence at the ski hill which will offer improved security and the ability to improve the management and protection of sensitive alpine ecosystems.

The proposed expansion would help accommodate interest in wilderness recreation, a growing component of the tourism sector on the north Island. The potential will be created to include First Nations' opportunities on Mt. Cain, improved access, increased number of recreational opportunities and overall improved management of a larger recreational area.

#### **POTENTIAL EXPANDED WINTER OPERATIONS:**

- Nordic skiing
- Expanded skiing terrain in adjacent bowls
- Expanded snowshoeing terrain
- Skiing/Boarding Terrain Park

#### **POTENTIAL SUMMER OPERATIONS:**

- Hiking
- Rock climbing
- Cabin rentals

Mount Cain's short-term skier visit growth is currently limited by operational resources, available utility services and ski area infrastructure. MCAPS is making utility infrastructure improvements opportunistically as funding is available to allow for future growth and development at the ski hill. The ski area has an annual mountain/skier capacity in excess of 20,000 skier visits based on 500 skier visits per day over a 40 day operating season. It is recognized that the existing parking and day lodge facilities in the base area is at capacity at the current average visitation rate of approximately 200 skiers/boarders per day. As Mt. Cain is operated largely on a volunteer basis by MCAPS, the operational capacity of the ski area is limited to MCAPS resources. At this time, MCAPS does not have sufficient resources to expand alpine ski terrain and the Controlled Recreation Area into adjacent bowls. The Master Plan Update does however include base area tenure expansion which will consider future recreational infrastructure expansion.

RDB has advised that for the purpose of this master plan review, RDB will limit its review to improvements and revisions specific to the lift-based ski area. Further expansion of lift based skiing will require a more detailed and comprehensive expansion master plan. An application for the proposed park establishment in the adjacent areas would be separate from ski area tenure revisions and under the jurisdiction of the Integrated Land Management Bureau. RDB commits to participating in a review of a Park Expansion Plan if and when one is prepared to ensure that the management and administration of ski area tenures is considered.

## **Section 3: Environmental & Cultural Values**

### **3.1 Fish Values**

No fishery values have been identified within or adjacent to the Mt. Cain Controlled Recreation Area due to the presence of terrain and gradient barriers to fish migration.

### **3.2 Wildlife Values**

In response to the Master Plan referral, RDB received information and feedback related to existing wildlife values and/or management issues for the Mt. Cain Ski Area from the Ministry of Environment, Fish and Wildlife Branch. MOE provided specific feedback related to access, wildlife species, fish, and water values/issues which will provide guidance and inform operational activities for ski area managers and staff.

### **3.3 Water Values**

MCAPS will work with the Ministry of Environment, RDB and the Vancouver Island Health Authority to address water stewardship and health standards requirements in the development of their Water Supply Upgrade Plan.

RDB notes that the Mt. Cain Ski Area does not conflict with any designated community watersheds, points of diversion, water licensed works, water reserves or registered well sites.

MOE, Department of Fisheries and Oceans staff and the 'Namgis First Nation provided detailed feedback related to environmental values. For detailed information, see the *Mt. Cain Master Plan Issues Tracking Sheet*.

### **3.4 Environmental Values**

RDB has noted the following environmental values within the Mt. Cain Controlled Recreation Area and surrounding areas.

- Mistaken Lake
- Headwaters/catchment area
- Alpine ecosystem

By way of the Master Plan referral, RDB requests information from the Ministry of Environment which identifies specific environmental and wildlife values and management issues which may need to be addressed within the ongoing management of the ski area.

MOE, Department of Fisheries and Oceans staff and the 'Namgis First Nation provided detailed feedback related to environmental values. For detailed information, see the *Mt. Cain Master Plan Issues Tracking Sheet*.

### **3.5 First Nations**

RDB is aware that First Nations communities on northern Vancouver Island contribute significantly to skier visits at Mt. Cain and benefit from the recreational activities offered at the ski hill. RDB is supportive of increased participation of First Nations in the development, operation and recreation opportunities available at Mt. Cain.

#### *'Namgis First Nation:*

Mt. Cain is located in the 'Namgis First Nation Traditional Territory which includes the Nimpkish River System in northern Vancouver Island. The Namgis First Nation belongs to a broader cultural-linguistic group called the Kwakwaka'wakw who occupied islands and inland areas proximal to Port McNeill, BC at the time of European contact. The Mt. Cain Controlled Recreation Area is located in the southern, inland portion of the 'Namgis Traditional Territory.

RDB engaged the Namgis First Nation in consultation discussions to determine the scope and nature of their interests in Mt. Cain Ski Area. RDB learned that the 'Namgis have strong interests in enhanced participation in recreational, tourism and land development opportunities at Mt. Cain.

In July 2010, RDB and the 'Namgis First Nation entered into a Memorandum of Understanding which will support the enhanced participation of the 'Namgis in recreational, development and tourism opportunities at Mt. Cain. The MOU is an over-arching agreement regarding a 9.47 hectare parcel of land located adjacent to the existing base lease area which has been identified as a parcel of interest in on-going Treaty negotiations.

The MOU will provide for the following:

- Inclusion of the parcel in the Controlled Recreation Area;
- Recognition of 'Namgis interests in the parcel area;
- Development of the parcel will be done by the 'Namgis in accordance with a Resort Development Branch-led Master Planning process which will include collaboration with MCAPS, the ski area operator, and the RDMW, the Operating Agreement holder;
- The issuance of a Nominal Rent Tenure within a sub-area of the 'Namgis Parcel of Interest which will allow for the development of up to five community use cabins and related infrastructure;
- The establishment of a Section 16 Map Reserve over the remaining 'Namgis Parcel of Interest for the purpose of Ski Area Planning and First Nations Interests.

#### *Nanwakols Council/Tlowitsis Tribe:*

The Tlowitsis Tribe's consultative area is located on the opposite side of the mountain from the Mt. Cain Ski Area and encompasses the adjacent watershed to the east and portions of the West Bowl. While there is a very small overlap of the uppermost elevations of the ski area (near the height of land) and the Tlowitsis consultative area, the majority of the Mt. Cain Controlled Recreation Area and the entirety of the base area are outside of the consultative area.

RDB engaged the Tlowitsis Tribe/Nanwakols Council in preliminary consultation discussions in 2007. Master Plan Update information was provided to Kathy Campbell, Referrals Office Project Manager for their review and comment.

Nanwakolas' primary concern is the protection of archaeological information. RDB will ensure that further archaeological survey/assessment work is done prior to any new development to ensure that archaeological values are protected.

While the focus of the Mt. Cain Master Plan Update Review is specific to the proposed changes and improvements within the ski area, RDB recognizes that the broader regional district park concept discussed in this Mt. Cain Master Plan Update represents a substantial overlap with the Tlowitsis Consultative Area and will necessitate consultation with the Tlowitsis Tribe.

#### *Kwakiutl Indian Band:*

Mount Cain is situated within the Kwakiutl Indian Band's Traditional Use Study Area. No specific sites have been identified within the ski area. The closest site was noted to be 4.8 km away from the Mt. Cain Ski Area.

RDB has confirmed that the Mt. Cain Ski Area is outside of the Kwatiutl Band's consultative area and that their interests will not be affected by the proposed changes in the Mt. Cain Master Plan Update.

## **Section 4: Overlap With Existing Use**

### **4.1 Mineral Tenure**

There are no existing mineral tenures which overlap the Mt. Cain Ski Area.

A Conditional Staking Reserve (1003065) was established to ensure that the ski area is not impacted by future and mineral extraction activities. *Figure 3: Forestry and Mineral Interests Map in Appendix A.*

### **4.2 Timber Tenure & Forest Use**

The Mount Cain Controlled Recreation Area (CRA) was deleted from the Tsitika Provincial Forest in 1986. The CRA was designated under the *Resort Timber Administration Act* (RTAA) in 2008, which transferred the authority to administer timber within the Mt. Cain CRA to the Ministry of Tourism, Culture and the Arts (RDB). See *Figure 3: Forestry and Mineral Interests Map in Appendix A.*

The intent of transferring the timber administration to RDB from the Ministry of Forest and Range was to provide a “one window” approach for ski area developments within CRAs, in order to streamline and integrate provincial review and application processes. Also, the transfer recognized that any land use decision that may be made in relation to the CRA is consistent with the ski area development purpose.

Mt. Cain is situated within the Mountain Hemlock Biogeoclimatic Zone. Timber species include Mountain Hemlock, Yellow Cedar, and Balsam Fir and are estimated to be at least 100 to 200 years old. No forest health issues were noted on site.

*No significant expansion of the Mount Cain Ski Area is being proposed at this time. Should timber harvesting be required Mt Cain will apply for a License to Cut through the Resort Development Branch – Timber Section of RDB. Any tree removal will be done in accordance with the Resort Timber Administration Act, Forest Act, Forest and Range Practices Act and regulations as well as with all land and forest tenure requirements.*

Tree Farm License 37, held by Western Forest Products, is located immediately adjacent to the Mt. Cain Ski Area and the ski hill’s road access is via WFP’s TFL road permit. MCAPS commits to maintain regular communications with WFP regarding ski area and TFL operations, planned road maintenance and future upgrades to ensure that there are no logistical conflicts and safety for both the public and workers is maintained.

There are no existing range tenures that overlap the CRA.

### **4.3 Land Use Planning, Local or Regional Zoning Requirements**

Mount Cain is within the Upper Nimpkish Land Unit area that is covered by the Vancouver Island Land Use Plan (VILUP) [http://ilmbwww.gov.bc.ca/slrp/lrmp/nanaimo/vancouver\\_island/index.html](http://ilmbwww.gov.bc.ca/slrp/lrmp/nanaimo/vancouver_island/index.html). The VILUP was completed in 1994, and followed by a number of Sustainable Resource Management Plans (SRMPs) and the Vancouver Island Summary Land Use Plan, intended to address VILUP strategies and targets on an area-specific basis, and provide detailed objectives and strategies for the management of the Vancouver Island’s resources and the maintenance of environmental values. The Mt. Cain Ski Area is located in both the Woss-Vernon General Management Area, RMZ #13 and to a lesser extent, the Tsitika General Management Area, RMZ #26.

Mt. Cain is located within Rural Zone A-1. Refer to Appendix D for Regional District of Mount Waddington zoning requirements.

#### **4.4 Commercial Recreation Tenure, Trapline Holder & Guide Outfitter Territories**

There are no known commercial recreation tenures in the Mount Cain Ski Area.

The CRA is overlapped with two guide outfitter area:

- Guide Certificate #100675 registered to Glen Venus
- Guide Certificate #100670 registered to David Fyfe

The CRA is overlapped by Trapline holder TR0110T609 area:

*See Figure 4: Wildlife Interests Map in Appendix A.*

#### **4.5 Public Recreational Use**

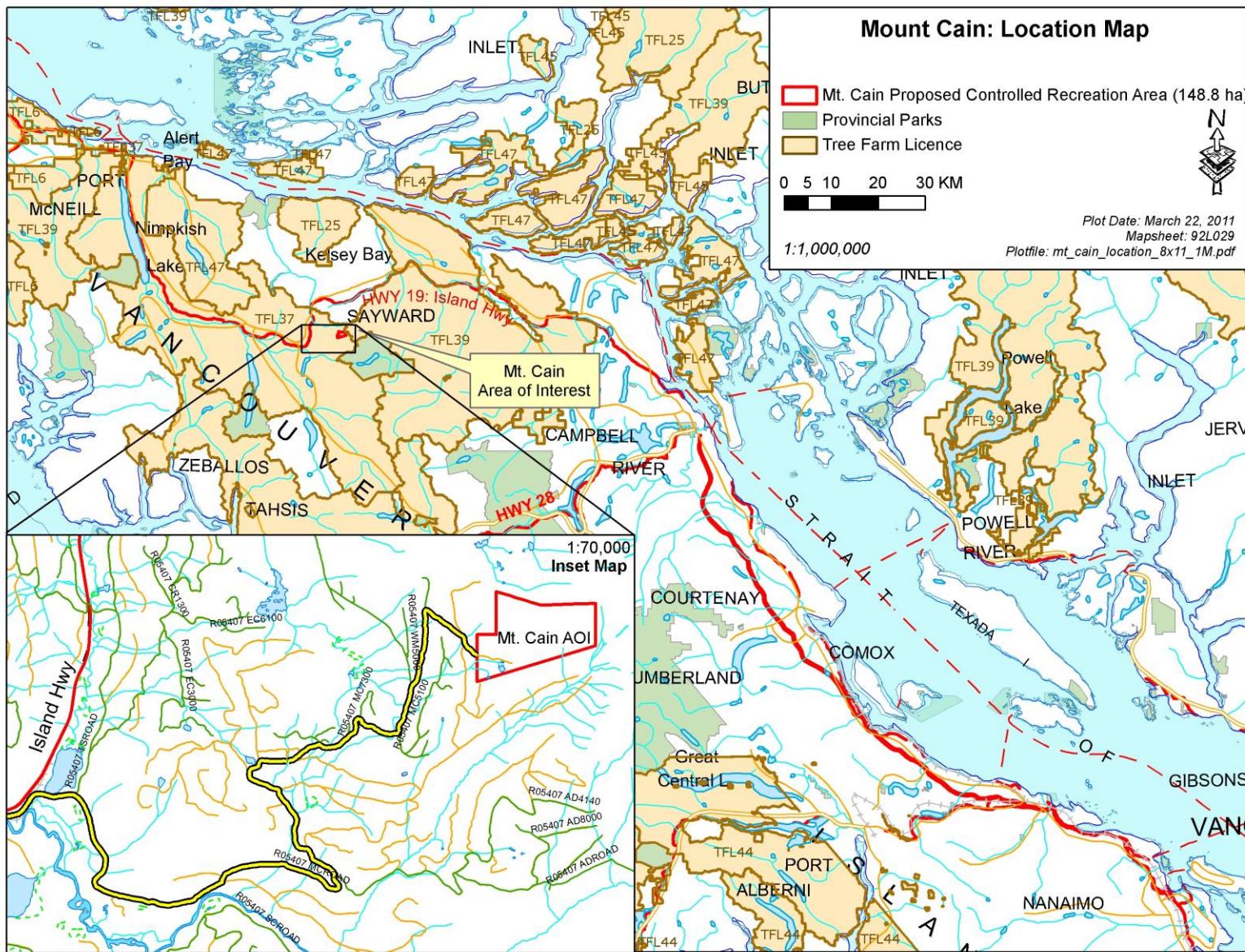
The Mt. Cain CRA is used for public recreation including hiking, berry picking and rock climbing in summer months and alpine lift-based skiing, backcountry skiing, Nordic skiing and snowshoeing in the winter months. Although it is not encouraged due to avalanche danger, backcountry enthusiasts, including skiers, snowboarders and snowshoers, access backcountry opportunities in winter months from Mt. Cain.

Motorized recreation is actively discouraged at Mt. Cain due to the inherent conflicts between non-motorized and motorized recreation.

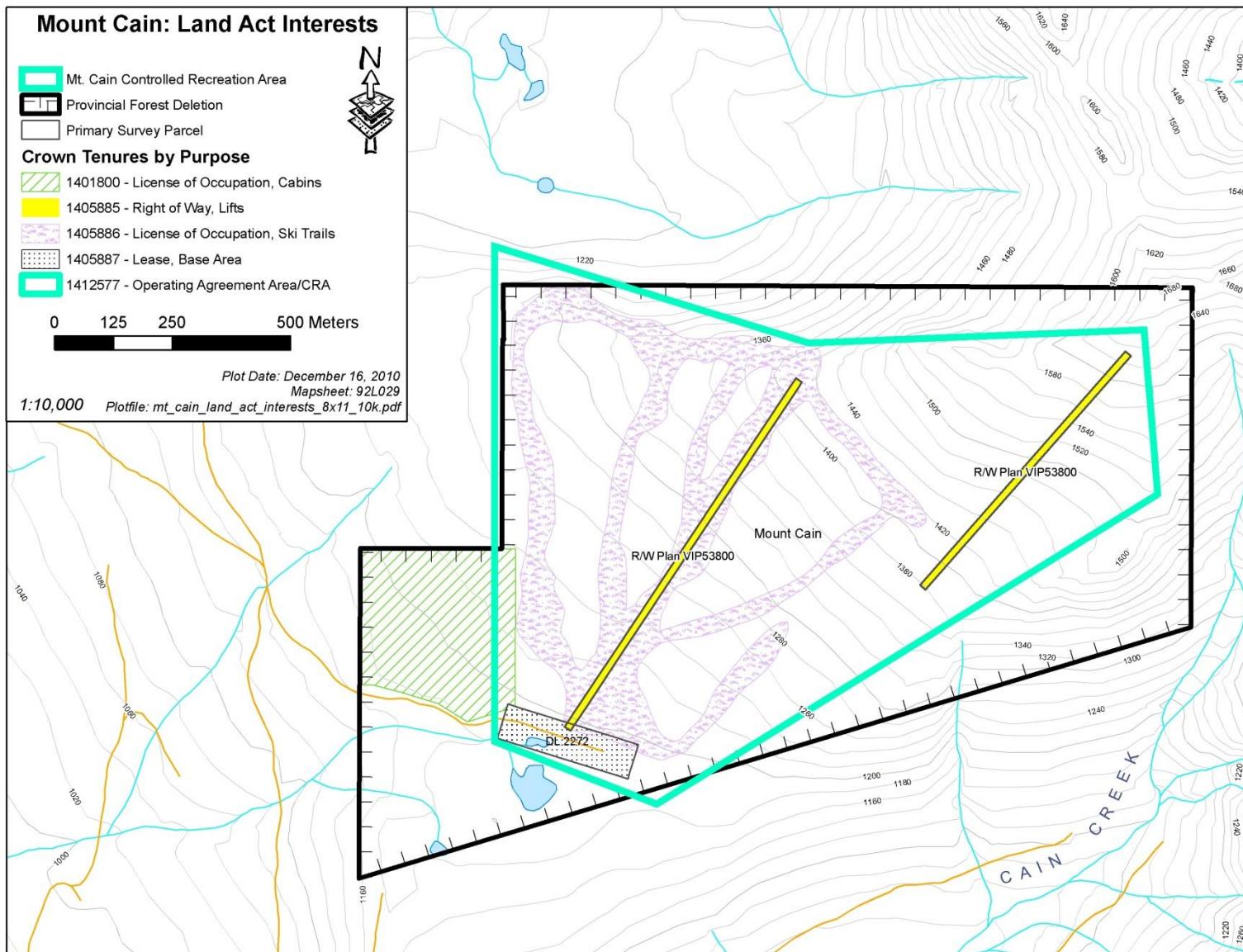
Public access and recreation may need to be controlled by signage, information booth and education programs in the future to ensure that worker and visitor safety is maintained.

## **Appendix A –Mapping**

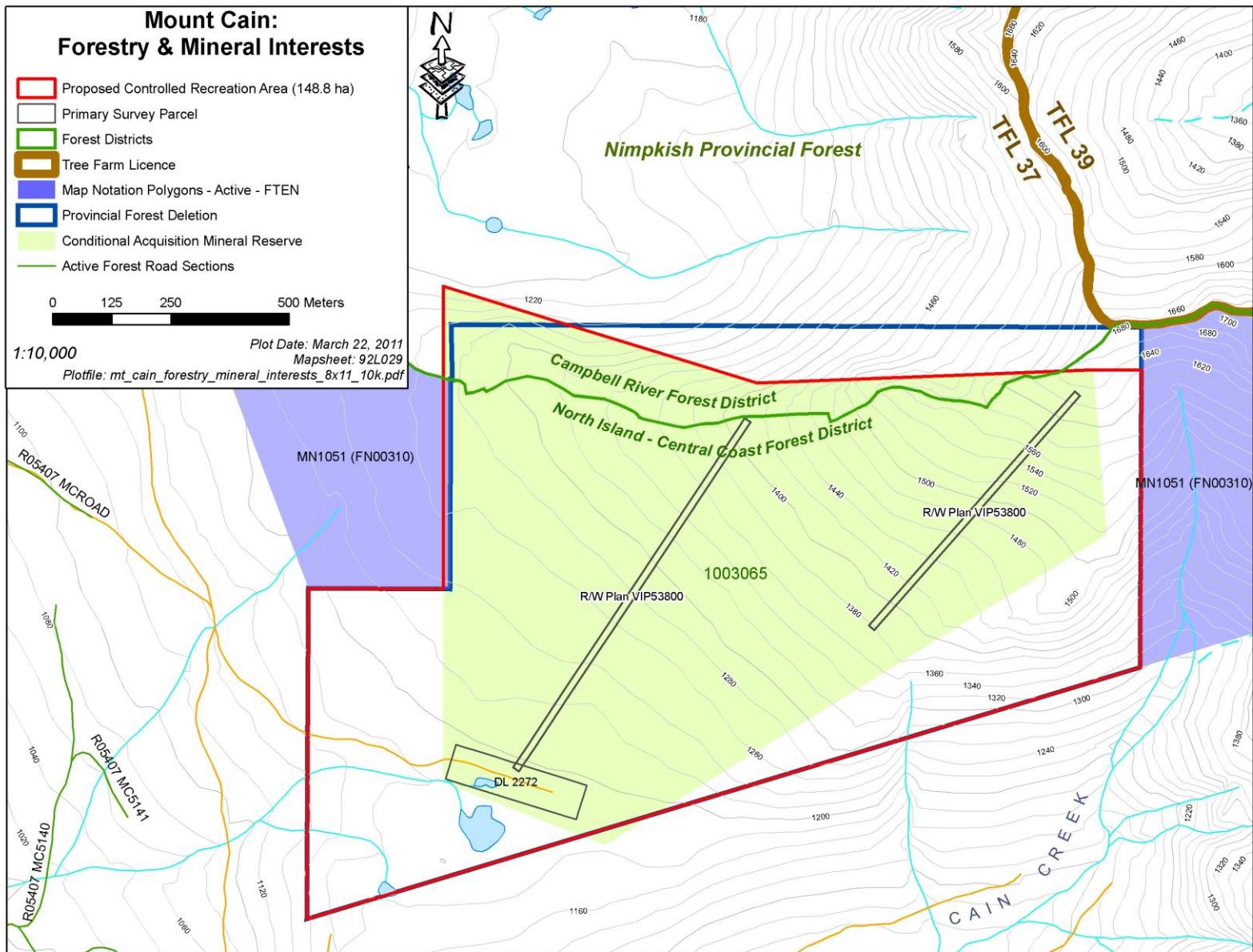
**Figure 1 – Location Map**



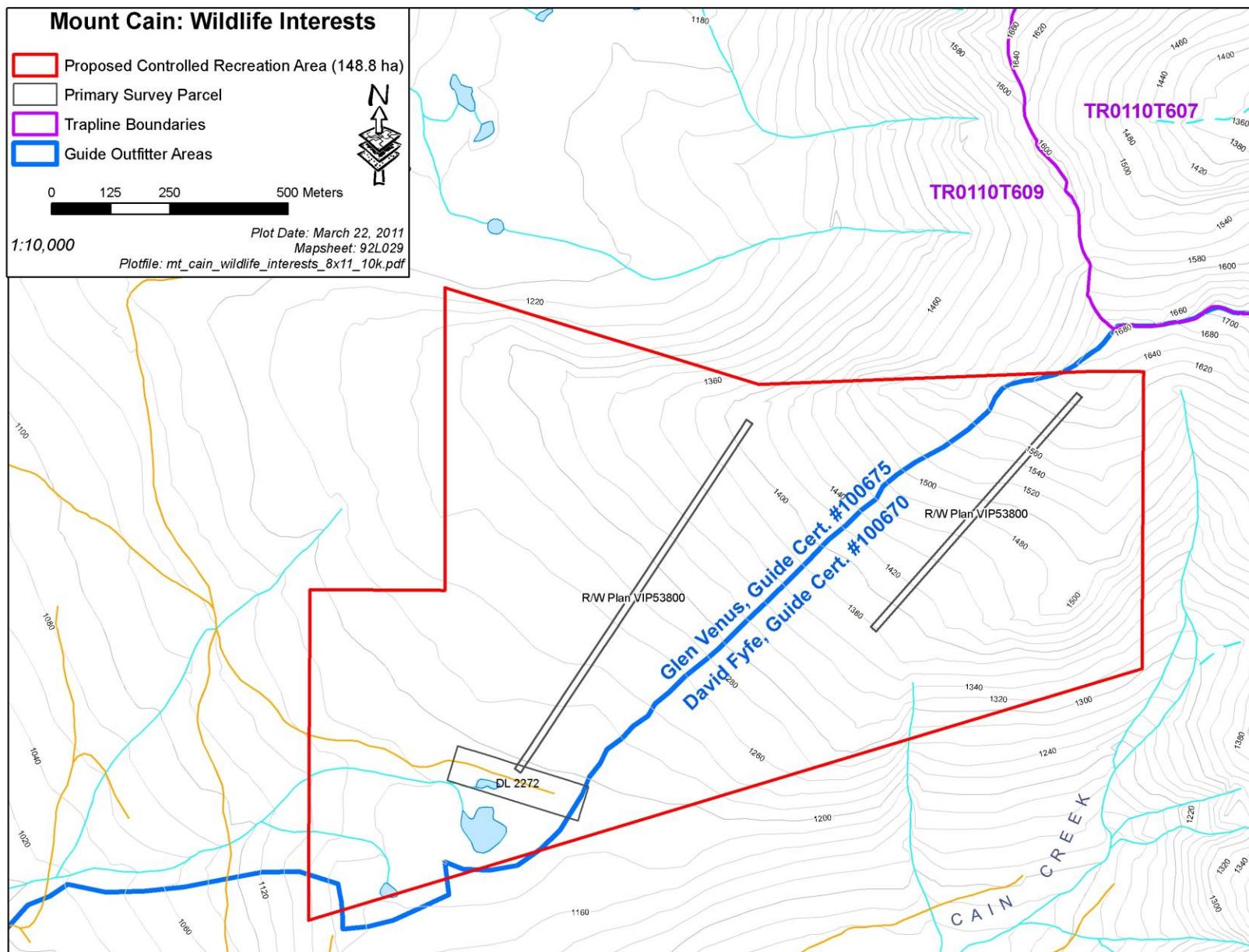
**Figure 2 – Land Act Interests Map**



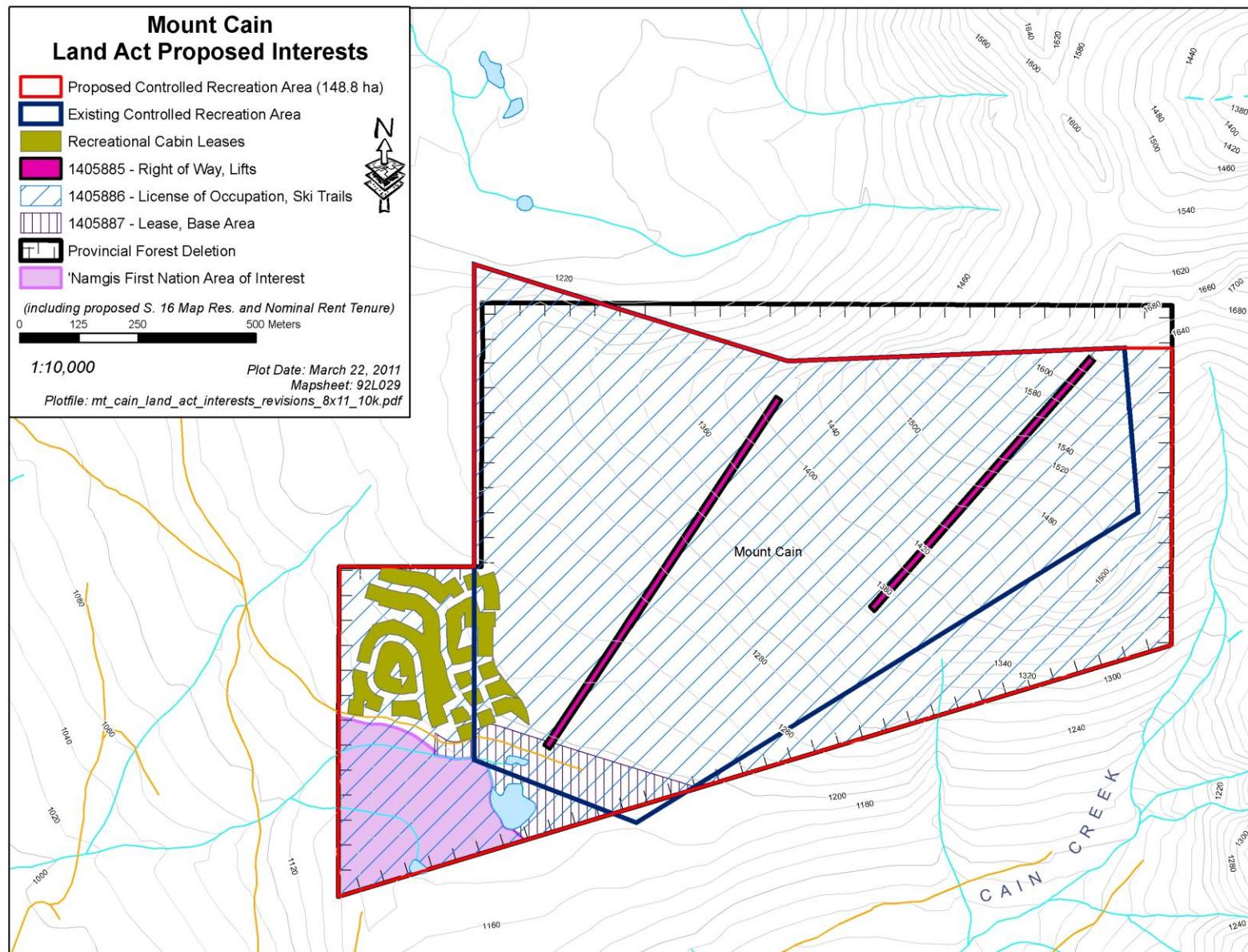
**Figure 3 – Forestry and Mineral Interests Map**



**Figure 4 - Wildlife Interests Map**



**Figure 5 – Proposed Land Act Tenure Revisions Map**



## **Appendix B - Safety Management Plan**

### **MOUNT CAIN SKI AREA SAFETY MANAGEMENT PLAN 2009 - 2010**

#### **SCOPE OF RESPONSIBILITY**

##### **Lifts Applicable:**

- Handle Tow 119.001
- Lower T-Bar 119.002
- Upper T-Bar 119.002

##### **Structure and Responsibilities of the Lift Maintenance Department**

- A. Operations Director - Lifts
  - Overall responsibility for lift maintenance
  - Directs lift maintenance staff in their duties
- B. Lift Maintenance Staff
  - Performs routine lift maintenance tasks

#### **SAFETY POLICY**

Mount Cain is cognizant of the need to promote and instill safe work practices throughout its operation. Operations Director - Lifts interacts on a regular basis with lift manufacturer, BC Safety Authority, local CSPS, CWSAA and our insurance provider.

##### **Z-98-01 Passenger Ropeways**

The Z-98 code book is issued to Lift Maintenance and supervisors.

(Work chair guidelines follow standards as outlined in the Z-98)

##### **Mountain Operations Manual**

Is issued to all personnel working in or around lifts and includes details of lift evacuation procedures, lift operating procedures, rigging procedures and emergency protocols.

#### **TRAINING & SUPERVISION**

##### **Required Training:**

Operations Director – Lifts and Lift Supervisor are the only persons responsible for supervision and/or training of any lift maintenance personnel.

Lift Supervisor has completed regulations and standards training acceptable to the Provincial Safety Manager for Surface Lift and Fixed-Grip passenger ropeways through Selkirk College. Any person supervising and training lift operators have been certified through Selkirk College's Train the Trainer program.

Training records for each employee are maintained by our Administration office.

All personnel supervising employees have a copy of the Z98 and are issued updates as applicable. They also have input into the design and content of the Mountain Operations manual which is issued to all employees involved in working with or around lifts.

Lift Supervisor has overall responsibility for training lift maintenance personnel and may demonstrate routine tasks to lift personnel.

## **EXTERNAL CONTRACTORS AND AUTHORITIES**

Contractors and sub-contractors working on lifts at Mount Cain are organized through lift manufacturer or are restricted to well-known industry affiliations (Inter-Mountain Testing Ltd for NDT testing, etc). Any others (e.g.: lift mechanics from other ski areas, etc.) are asked for proof of certification to be placed on file.

## **SCHEDULED MAINTENANCE, TESTING AND INSPECTION**

Mount Cain follows lift manufacturers' recommendations as outlined in the Operating and Instruction manuals, as well as the Z-98-01 Passenger Ropeways standards.

## **MAINTENANCE RECORDS**

Record keeping is conducted in accordance with Z-98-01 Passenger Ropeways, Section 11 (specifically Section 11 Clauses 12, 16, 18 and 24).

Maintenance Records for each lift are maintained by the Lift Supervisor and are retained at mountain office. These detail any required work done on the lifts, and would also include details of any work performed by external contractors.

A daily log for each lift is maintained by lift maintenance and lift operations personnel and is retained at individual drive stations (during off-season - moved to mountain office).

# COMPLIANCE

Mount Cain is aware that lift maintenance and operations must conform to standards and acts issued by the BC Safety Authority, and WCB.

We are also responsible for complying with directives received from our insurance provider as well as lift manufacturer's recommendations.

I certify that I have prepared Hazards and Safety Plan which meets or exceeds Workers Compensation Board and approved industry standards and that my operation will meet the requirements of this plan.

Signed

Date

## **Appendix C - Mt. Cain Alpine Park Lodge Drinking Water System Emergency Response Plan**

Certified Operator:	Rick Adams	250-926-0409
Operations director:	Jeff Gaetz	250-954-8833
Kitchen manager:	Sharon Schraud	250-956-2454

Medical Health Officer: Charmaine Enns 250-334-5461 fax 250-334-5466  
Environmental Health Officer: Joseph Baratta 250-850-2110 fax 250-286-3486

<b>Emergency Situations</b>	<b>Response</b>
<ul style="list-style-type: none"><li>• Sample analysis indicates e-coli</li><li>• Loss of power from generator</li><li>• Frozen pipes</li></ul>	<ol style="list-style-type: none"><li>1. Call system operator, operations director and kitchen operator and advise them a boil water advisory is in effect.</li><li>2. Signs to be posted immediately.</li></ol>

### **Ongoing**

All 4 outlets (2 washrooms, kitchen and water room) to have permanent signs advising a power loss means no UV treatment is being applied and boil water advisory is in effect.

Emergency supply of bottled water to be kept in lodge. (80 liters)

Emergency Response Plan reviewed by Rick Adams on April 28, 2009.

### **PREAMBLE**

This system is gravity fed and originates from a reservoir located approximately 100 meters uphill from the lift motor on the beginners slope known as the "Bunny Hill". It services the maintenance staff quarters ("Andy's Shack"), the main ski lodge building and the composting toilet's building.

The reservoir is a partly rubber lined excavation approximately 20 feet in diameter which is fed from an existing mountain run-off stream. The working depth appears to be about 4 – 5 feet and there are provisions to handle overflow. It is surrounded by a 10 ft metal fence to exclude wildlife.

2 inch poly piping runs downhill to a point behind the maintenance staff quarters where it tee's into two 1" ABS lines, one going to the lodge and one to the staff quarters.

1. The line into the maintenance staff quarters provides raw unfiltered water to the shower, toilet and kitchen sink. They are signed with boil water advisory. This line must be left partially running through the building during midweek downtime to keep it from freezing.
2. The line to the main lodge is partially restricted in the water control room and the resulting back pressure is used to charge the lines to the kitchen sink on the first floor, the public "water room" line, and the two sinks present in the composting toilet building outside. There is a standard particulate canister filter assembly with a 1 micron element ahead of a Sterilight Model S12Q UV filter and the system allows for either filtering or bypassing.

Current certified Small Water Systems Operator:

Rick Adams,  
156 Rockland Road,  
Campbell River, BC. V9W 1N6  
250-926-0409  
[info@mountcain.com](mailto:info@mountcain.com)

## OPERATION START UP

Usually the maintenance person will start up the system when he arrives on Thursday or Friday. He will already have the generator on so the UV filter will be operative.

1. Replace particulate filter element (ensure proper fitting) and hand tighten canister to seal on o-ring.  
(New elements are stored overhead)
2. Close filter by-pass valve #3
3. Open filter inlet valve #4
4. Open filter outlet valve #5
5. Open hot water heater inlet valve #6
6. Slowly open filter system inlet valve #2 and check for leaks at filter canister.
7. Close system drain valve #1.
8. Ensure UV filter is plugged in and light is present at end of tube.
9. Check for water present at water room, kitchen and toilets

## SHUTDOWN AND DRAIN

The system must be shut down and drained to prevent lines from freezing over the week and this operation is normally done by the maintenance person.

1. Turn off gas for water heater, (blue valve above heater) and unplug UV filter.
2. Open system drain valve #1
3. Close system inlet valve #2
4. Open filter bypass valve #3
5. Go to storage room under washrooms and open and drain line from lodge. (use small rubber hose attached to tap and drain into bucket) Stay with it until water stops and then **CLOSE THIS TAP**.
6. Return to water control room and open small hot water drain line at bottom of the heater. When drained, close the valve.

Remove particulate filter canister, discard used element and leave disassembled.



## MAINTENANCE

1. Replace UV bulb (if necessary, 1000hr life) and wipe clean the inner tube assembly annually prior to ski season start-up.
2. Visually inspect reservoir for contaminants annually prior to ski season start-up.
3. Cleanse system downstream of filter system with bleach annually prior to ski season start-up. (Put 6 oz of bleach into empty filter canister, install and then charge system. Open and run all taps until bleach smell is strong. Close taps and let water/bleach mixture remain in lines overnight. Flush system after 24 hrs by opening all taps with system charged and UV filter operative.)
4. Test water samples from lodge kitchen annually for trace minerals, monthly for micro-biology.
5. Replace particulate filter element weekly.
6. Document all procedures in water system records and particulate filter element changes in log on water control room wall.

## EQUIPMENT

1. Sterilight Model S12Q UV filter assembly using #S36L Tube
2. Big Blue particulate filter canister using #CP1 US Filter 1 micron element

## **Appendix D –Regional District of Mount Waddington Zoning Requirements**

### **RURAL ZONE (A-1)**

#### **A.1.0 PERMITTED USES**

In a Rural (A-1) zone the use of land, buildings and structures is restricted to:

- (a) single family and two family dwellings;
- (b) agricultural uses;
- (c) recreational uses and structures;
- (d) cemeteries;
- (e) public and quasi-public buildings and uses;
- (f) garbage dumps, provided that the location of the site in respect of water courses and air pollution has the approval in writing by the Medical Health Officer, or other such person designated by him, or the Director, Pollution Control Board whichever has jurisdiction in the case;
- (g) public utility structures and uses; and
- (h) buildings and uses secondary to a permitted use in this subsection.
- (i) *Commercial Hydro Electric Energy Generation Systems (HEG) and related buildings and structures and accessory uses. (amended by Bylaw 700, 2004)*
- (j) *Commercial Wind Energy Generation Systems (WEG) and related buildings, structures and accessory uses. (amended by Bylaw 700, 2004)*

#### **A.1.1 MINIMUM SITE AREA**

- (a) The minimum site area shall be four (4) ha for single family dwellings and agricultural uses.
- (b) *The minimum site area for HEG Systems required is 1000 square metres. Where an HEG is located on crown land, the area of land leased for long term use for HEG development, excluding transmission corridors, shall not exceed 1 hectare per 5 mw of generation capacity. (amended by Bylaw 700, 2004)*
- (c) *Where a WEG System is located on crown land, the area of land leased for long term use for WEG development, excluding transmission corridors, shall not exceed 1 hectare per 1 mw of generation capacity. (amended by Bylaw 700, 2004)*

#### **A.1.2 DWELLING UNITS PER SITE**

There shall be no more than one single family or one two-family dwelling per site or parcel.

#### **A.1.3 UNSIGHTLY STORAGE**

No parcel shall be used for the wrecking or storage of derelict vehicles or equipment or as a junkyard and no person shall permit such vehicles, equipment or junk to remain on any parcel.

**A.1.4 THIS SECTION IS ONLY APPLICABLE FOR HYDRO ELECTRIC GENERATING (HEG) SYSTEMS AND/OR WIND ENERGY GENERATING (WEG) SYSTEMS (AMENDED BY BYLAW 700, 2004):**

**i) WEG AND HEG SYSTEM APPLICATIONS**

RDMW may approve HEG/WEG zone amendment applications on a site specific, case-by-case basis having regard for:

- (a) information provided in the application,
- (b) proximity to other land uses in the immediate area,
- (c) consideration of the cumulative social, economic, environmental and other resource use effects of all HEGS approved or proposed in the immediate area, or watershed,
- (d) information received from the circulation of the application and the public.

**ii) APPROVALS:**

All WEG/HEG development proponents shall complete and provide to the Regional District of Mount Waddington copies of reports and/or approvals, as appropriate, from the following:

- Integrated Land Management Bureau
- Water Land and Air Protection BC
- BC Ministry of Forests
- BC Environmental Assessment Office
- BC Utilities Commission
- BC Hydro
- Transport Canada
- BC Transmission Corporation

In addition, all HEG development proponents shall complete and provide to the Regional District of Mount Waddington copies of reports and/or approvals, as appropriate, from:

- Fisheries and Oceans Canada

In addition, all HEG development proponents shall complete and provide to the Regional District of Mount Waddington copies of reports and/or approvals, as appropriate, from:

- Canadian Coast Guard

**iii) SETBACKS FOR HEG SYSTEMS:**

- (a) No building or structure, except a fence, shall be located within 7.5 metres of a parcel or lease boundary line;
- (b) No building or structure, except tailrace channels which return water to the creek, shall be located within 15 metres of the natural boundary of a watercourse;
- (c) An HEG shall comply with all the setbacks required by the relevant authority related to roadways in the area in which it is located;
- (d) An HEG shall be located not less than 100 metres from any general commercial or industrial use, or area zoned for general commercial or industrial use on land not belonging to the owner of the land on which the HEG is located;
- (e) An HEG shall be located not less than 200 metres from any residential, or commercial or public tourism or recreational use not belonging to the owner of the land on which the HEG is located;

**iv) SETBACKS FOR WEG SYSTEMS:**

- (a) A WEG shall comply with all the setbacks required by the relevant authority related to roadways in the area in which it is located.
- (b) A WEG shall be located not less than four times the height of the WEG, as measured from the ground to the highest point of the rotor's arc, from any general commercial or industrial use in the area of RDMW jurisdiction not belonging to the owner of the land on which the WEG is located.

- (c) A WEG shall be located not less than 10 times the height of the WEG, as measured from the ground to the highest point of the rotor's arc, from any residential, or commercial or public tourism or recreational use in the area of RDMW jurisdiction not belonging to the owner of the land on which the WEG is located.
  - (d) A WEG shall be located not less than 1 kilometres from any area designated for residential use in any local area plan, municipal plan, or First Nations Reserve plan, or from the boundary of any regional, or provincial park.
  - (e) A WEG shall be located so that the horizontal distance measured at grade from the outside of the rotor arc to any property or lease area boundary, other than roadways, is at least 7.5 m (24.6 ft.).
- v) SITE COVERAGE FOR HEG AND WEG SYSTEMS:  
Buildings and structures shall not cover more than 60 percent of the site area.
- vi) DISTRIBUTION LINES FOR HEG AND WEG SYSTEMS:  
Power lines to the substation or grid will be considered to be public utilities for the purposes of zoning. All power lines on the site, to the substation or grid will have a minimum ground clearance of 7.5 m (24.6ft.).
- vii) COLOUR AND FINISH FOR WEG SYSTEMS:  
A WEG System shall be finished in a non-reflective matte and in a colour that minimizes the obtrusive impact of a WEG System. No lettering or advertising shall appear on the towers or blades other than the manufacturer's and/or owner's identification.
- viii) PARKING AND LOADING FOR HEG SYSTEMS:  
Every HEG System shall provide with one space for parking and space for loading, unloading and maneuvering of tridem axle trucks as defined in the Commercial Transport Regulations under the Commercial Transport Act.
- ix) DECOMMISSIONING HEG AND WEG SYSTEMS:  
If an HEG or WEG discontinues producing power for a minimum of two years, the system operator shall be required to provide a status report. A review of the status report by the RDMW may result in a request for the HEG/WEG to be decommissioned. Failure to comply with a decommissioning request may result in the issuance of a stop order by the designated officer in accordance with the provisions of the Local Government Act.

## **Appendix E –Summary of Commitments and Assurances**

### **Mt. Cain 2010 Master Plan Review**

#### **Summary of Commitments and Assurances**

The following commitments and assurances were prepared during the Master Plan Review process and address key issues identified by review participants. The following commitments and assurances will be noted in the 2010 Mt. Cain Master Plan and those identified as ‘Operating Agreement Conditions’ will be added to standard Conditions of Tenure (Appendix J).

#### **Environmental**

1. MCAPS and RDMW will avoid alteration of the land and vegetation within 50m of any water course where operationally feasible.
2. MCAPS and RDMW will conform to instream work windows and guidelines in *Standards and Best Practices for Instream Work* (Water Land and Air Protection, BMP Series, 2004).
3. MCAPS and RDMW will attain necessary approvals for road works in or about a stream as required under the *Water Act*.
4. MCAPS and RDMW will develop a road upgrade plan which will utilize proper ditching techniques and drainage structures and meet applicable environmental and forest road standards.
5. MCAPS and RDMW will maintain the pre-existing natural drainage pattern for all development activities to the extent feasible.
6. MCAPS and RDMW will employ effective erosion and sediment control measures prior to any activity that involves soil disturbance.

#### **First Nations Interests**

7. An Archaeological Overview Assessment (AOA) will be completed prior to any new development at Mt. Cain.
8. RDMW and MCAPS commit to working with the ‘Namgis First Nation to enhance their participation at the Mt. Cain Ski Area, including the implementation of the Memorandum of Understanding between the Province and the ‘Namgis.

#### **All Development within Controlled Recreation Area and Cabin Lease Lots**

9. MCAPS and RDMW will ensure that new cabins or structures which require the installation of additional sewage holding tanks will submit an application and fee to VIHA prior to construction/installation.
10. MCAPS and RDMW will ensure that VIHA can undertake periodic inspections of holding tanks and other water and sewer utility infrastructure.
11. Sewage Treatment Services Agreement will be consistent with Sewage System Regulation and Health Act and reflected in a new Cabin Owner’s Agreement.
12. Sewage Treatment Services Agreement will be maintained in good standing.
13. RDB requires the cabin owners to be compliant with all local government and Provincial bylaws, regulation and legislation, including the Sewage System Regulation, Health Act, and the Land Act.
14. MCAPS and RDMW will ensure that VIHA can undertake periodic inspections of holding tanks and other water and sewer utility infrastructure.
15. MCAPS and RDMW will provide RDB and authorizing agencies with detailed planning and design information in advance of construction so as to allow for review and consideration and to determine if subsequent approvals are necessary.

## **Health**

16. MCAPS and RDMW will work with VIHA on any plans which alter food preparation and service areas to ensure that they meet Health Standards.
17. MCAPS and RDMW will consult with MOE, VIHA and the Public Health Engineer on their water upgrade plan to ensure that they will meet Environmental and Health standards.
18. MCAPS and RDMW will continue to report to VIHA on the compliance with the Sewage Treatment Services Agreement and the maintenance and proposed upgrades to the water and sewer systems to ensure the cabin and base areas continue to meet Health and Environmental standards.
19. MCAPS and RDMW will maintain the Sewage Treatment Services Agreement in good standing.
20. MCAPS AND RDMW will work with RDMW, VIHA, RDB and MOE to ensure that water and sewer systems improvements planned for the base area meet Health and Environmental Standards.
21. MCAPS will work with VIHA on any plans which alter food preparation and service areas to ensure that they meet Health Standards.

## **Road Access**

22. MCAPS and RDMW will attain necessary approvals for road works in or about a stream as required under the Water Act.
23. MCAPS and RDMW will develop a road upgrade plan which will utilize proper ditching techniques and drainage structures and meet applicable environmental and forest road standards.
24. MCAPS and RDMW will carry out appropriate sediment control measures as per Federal and Provincial legislation and regulation when undertaking construction works.
25. MCAPS and RDMW will communicate regularly with WFP in order to ensure that safety and maintenance issues are addressed in a timely manner and maintain their Road Use Agreement in good standing.
26. MCAPS and RDMW will ensure that their Road Use and Maintenance Agreement with WFP will be maintained in good standing.
27. MCAPS and RDMW will work with RDB and other agencies/stakeholders to pursue the authorization of the currently unclassified road segment between the point of termination of the WFP's road permit and the Controlled Recreation Area.

## **Third Party Access and Existing Interests**

28. MCAPS and RDMW will work with the Guide Outfitters to ensure there is no conflict in their use of their territory and the ski area operations.
29. MCAPS and RDMW will work with the identified Trapline holder to ensure there is no conflict in their use of their territory and the ski area operations.
30. MCAPS and RDMW will work collaboratively with WFP and other road users to ensure ski area operations, harvest operations and road use are conducted in a safe manner.