

PEMBERTON VALLEY RECREATIONAL TRAILS MASTER PLAN

May, 2020



Recreation Sites
and Trails BC

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1 EXECUTIVE SUMMARY

The 2019 Pemberton Valley Recreational Trails Master Plan (Trails Master Plan) provides a framework for the management and maintenance of trails within a designated area within the unceded traditional territory of the Lil'wat Nation, the Village of Pemberton (VOP) municipal boundary, and a portion of Electoral Area C within the Squamish-Lillooet Regional District (SLRD).

The Trails Master Plan is guided by the vision of an inclusive and well-managed trail network with a full spectrum of recreational opportunities that fosters:

- Environmental sustainability;
- Respect for cultural values;
- Community well-being;
- Individual well-being;
- Economic opportunity.

The Trails Master Plan is an update to the 2009 Trails Master Plan and was undertaken to reflect the significant growth in trail usage and construction, concerns surrounding the preservation of cultural and environmental values, as well as the increasing pressure from private development.

The updated Trails Master Plan incorporates the current realities within the region, refined through community consultation. A Steering Committee of representatives from the SLRD, Lil'wat Nation, VOP, Ministry of Forests, Lands, Natural Resources Operations and Rural Development (MFLNRORD), and the Pemberton Valley Trails Association (PVTA) was instrumental in guiding the early development of the Trails Master Plan. Initial ideas and recommendations were then revised and refined through input from community open houses in both Pemberton and Mount Currie and an online survey.

The resulting 2019 Trails Master Plan includes a review of the existing trail network, background on the physical, ecological, and cultural characteristics of the area, the relevant regulations and legislation pertaining to trails on Crown land, and community perception of current opportunities and challenges. From this foundation it offers a series of recommendations, management strategies to address trail development and maintenance, user conflict, and funding, as well as an implementation plan to guide the application of the recommendations.

The development of the 2019 Trails Master Plan update was facilitated by the SLRD with additional funding provided by Recreation Sites and Trails BC (RSTBC), and the PVTA. In kind contributions were provided by the Lil'wat Nation Land and Resources Department. The Pemberton Valley Recreational Trails Service, administered by the

SLRD Parks and Trails Department, is one of several shared services of the Village of Pemberton and SLRD Electoral Area C.

The 2019 Pemberton Valley Recreational Trails Master Plan provides an invaluable tool to ensure the trail network is a vibrant, inclusive, and well-managed part of the Pemberton Valley for years to come.

1.1 INTRODUCTION

The Trails Master Plan applies to lands within the unceded traditional territory of the Lil'wat Nation, in the Province of British Columbia. The Lil'wat Nation was a partner in this planning process to incorporate their unique interests and values on the land, and address the need for trail use and development to be carried out with recognition and respect for Lil'wat Nation aboriginal rights, including title.

The Pemberton Valley is approximately 30 kilometres north of Whistler at the northern end of the Sea to Sky region (Fig. 4.1). It lies within *Lil'watátkwa*¹, the Lillooet River Valley, surrounded by towering mountain peaks in the heart of the Pacific Mountain Range, in the Coast Mountains. With a wealth of mountainous terrain, unspoilt forests, and a growing reputation, the area has developed an extensive, multi-use trail network of approximately 240 kilometres. The SLRD acknowledges the existing trail network and the strong volunteerism that has gone into developing these trails.

The trail network has experienced significant growth in both new construction and trail use in recent years. Many of the trails originated from Lil'wat traditional use activities, such as gathering, hunting and travel routes, and continue to hold significance to Lil'wat people to carry out these practices as well as being places where there are known and potential archaeological sites. Hikers, trail runners, dog walkers, mountain bikers, horseback riders, and motorized users currently all enjoy the extensive trail network and it acts to draw new residents and tourists to the area.

The rapid growth of trail use has resulted in increasing demand for greater trail capacity, and ongoing development of new, unauthorized trails. The increasing trail network and popularity of trail use is causing Lil'wat Nation to raise concerns about the displacement of their traditional use activities and impacts to archaeological and cultural sites. Further, the popularity of Pemberton as a place to live and recreate has driven demand for housing and private land development. This in turn threatens the

¹ *Lil'watátkwa* is the Ucwalmícwts name for the area including the Lillooet River and Pemberton Valley (identified in the Lil'wat Land Use Plan: Phase I)

very trails that make it such a desirable place to live. In short, there is a need to reconcile the imperative to protect Lil'wat cultural sites and land use interests, with the ever increasing demand for trail capacity, the prevalence of unauthorized trails, and the growing pressure from development.

The recreational trail network is currently guided by the Pemberton Valley Trails Master Plan (2009) developed by the SLRD in consultation with Lil'wat Nation, VOP, RSTBC, and local trail user groups. In recent years, trail developers have been encouraged to submit an application to RSTBC to receive authorization for any new trail development. One challenge with the authorization process is the time it takes for RSTBC to go through the process and review, comment, and rule on proposed trail developments. Some trail builders are reluctant to wait this long before building a trail and often go ahead with trail building without authorization.

Efforts have been made by the PVTA to educate its membership about the need to go through the proper authorization channels before building new trail. However, a greater understanding is needed among trail users and trail builders about the variety of interests in the land that need to be respected, including legal interests such as private land holdings and aboriginal rights and title. There is also a lack of knowledge and understanding about what Lil'wat Nation cultural and archaeological sites are and therefore makes it difficult to minimize impacts for trail builders and trail users. Lack of authorization for trail development has hindered efforts to manage and develop the trails network as a well-integrated system that respects the overall interests and plans for the community at large.

Recognizing this challenge, the SLRD, Lil'wat Nation and the PVTA sought to update the 2009 Trails Master Plan so that an updated approach to trail management could be developed. A Request for Proposals was issued by the SLRD in August, 2017. Brent Harley and Associates Inc. (BHA) and Grey Owl Consulting were hired in September 2017 to complete an updated Trails Master Plan. Subsequent revisions were then carried out by the SLRD and Lil'wat Nation, in consultation with the members of the Steering Committee.

The update to the Trails Master Plan was a collaborative effort between the SLRD, the Lil'wat Nation, PVTA, VOP, RSTBC and local user groups. Its scope is confined to summer recreation in the Pemberton Valley

2 HISTORY OF THE LIL'WAT NATION

As part of the development of a Trails Master Plan within the traditional territory of the Lil'wat Nation, it is imperative that the history of Lil'wat Nation be understood and respected. The following is a submission from the Lil'wat Nation outlining their history, rights and unique connection to the land.

I tmícwsa i Ucwalmícwa

Pála7 tú7 ti tmícwsa i Ucwalmícwa

I kél7a swéqweł's i skelkela7lhkálha ti Stát'yemca sqwałút. Nilh ti7

wa7 szwatenítas ti tsunańcálsa ti tmícwa.

I sqwéqwełs i Lílwata Úcwalmicw sqwałminítas i skélkel7a tmicw.

Wa7 tú7 wa7 tsúwa7s i Lílwatemca ti tmícwiha.

The people and the land are one.

The stories our ancestors first spoke in the Ucwalmicwts (language) of the Stát'yemc celebrate the understanding that the people and the land are one.

Those stories tell of the rich history of the Lílwat people

and our traditional lands.

The Lílwat have always been, and will continue to be,

a people of the land.²

We the Lílwat people (Lílwat7úl) are the descendants of those who lived throughout the Lílwat Nation Territory since time immemorial. Lílwat Nation Territory is 797,131 hectares, extending south to Rubble Creek, north to Gates Lake, and east to the Upper Stein Valley, and west to the coastal inlets of the Pacific Ocean.

Skilled fishers, hunters, gatherers and canoe-builders, we have a long history of accessing the plant and animal resources of the high mountain slopes and river valleys of our territory. Plant foods, including berries, nuts, wild onions and potatoes, and other roots would be collected from spring to fall. Trapping and hunting provided food

² Lil'wat Land Use Plan (2006)

and clothing year-round. Salmon fishing was, and continues to be, especially important to us. We are blessed with a river, the Birkenhead, which has runs of all five species of salmon. This means we have access to spring salmon, Zúmak, starting in March, and can continue salmon fishing through to the winter Coho in November.

The geography of Lílwat Territory, covering two formidable mountain ranges, ensured our important role in the early regional economy as traders. For centuries, we had a commercial exchange of all manner of goods with many other First Nations, and later with non-Indigenous fur traders, miners and settlers. In this way, our way of life became embedded in the new economy created by the interaction of Indigenous peoples and Europeans. This economy became part of the foundation of the modern Canadian state.

First European contact came in 1793 when Alexander Mackenzie made his overland journey to the Pacific. Over the next two centuries, traders, miners, and settlers arrived in Lílwat territory, without invitation.

As the colony of British Columbia grew and prospered, Lílwat Nation, like other First Nations, was systematically stripped of land, rights and resources. In the 1800s, our villages were severely impacted by new diseases and our people were increasingly disenfranchised and confined to the Mount Currie Indian Reserve Lands. The majority of Lílwat7úl now reside in Mount Currie, a town 6 km east of Pemberton.

Lílwat7úl have a tradition of oral history. Since time immemorial, knowledge and history have been transmitted to young people through two kinds of stories, sqwéqweí (“sko-kwal”), meaning “true story”, and sptakwlh (“ship-tak-withl”) meaning “legend.” Cultural knowledge in Lílwat oral tradition is mapped on the landscape. Events are anchored to place, and people use locations and space to speak about events over time. Both sqwéqweí and sptakwlh stories are told with reference to place names on the land where events occurred. We describe our history as “written upon the land.”

Evidence of our use of our land through the ages is represented by a rich legacy of archaeological sites. The traditional winter homes of the Lílwat7úl are semi-underground houses called s7ístkens. There are many s7ístken village sites throughout the Traditional Territory where depressions in the ground can still be found. An s7ístken village site was recently carbon dated and found to be approximately 5,500 years old.

Another very visible archaeological feature on our territory are culturally modified trees (CMTs). CMTs are primarily cedar trees from which the bark has been stripped to provide raw materials for basketry or roofing. This process allows the trees to continue to live.

A very special archaeological feature with great spiritual importance to Líl'wat7úl is rock art. There are two kinds, petroglyphs and pictographs. Petroglyphs are images carved into rock outcrops and boulders. Pictographs are paintings, usually created using red ochre. There is a diversity of purposes for rock art ranging from the documentation of spiritual quests through to directional indicators and maps. Archaeological sites provide information about the past that, together with oral histories, document the history of the Líl'wat Nation.

Today, we take an active role to preserve our history by protecting these important archaeological features on the land. We also continue to engage in the regional economy and practice the traditional hunting, gathering and fishing activities that are so integral to our culture. We remain committed to our stewardship responsibilities to the land, and governing responsibilities to our people.

- ⇒ Líl'wat Nation asserts: The Líl'wat Nation has held its Territory, including all the lands, waters and resources in its Territory, since time immemorial.
- ⇒ The Líl'wat Nation is the steward of its Territory and is charged with protecting and managing the lands, waters and resources today and for future generations.
- ⇒ The Líl'wat Nation has Aboriginal title to and Aboriginal rights throughout its Territory. These title and rights have never been ceded, surrendered, or abandoned. Similarly, they have not been extinguished.
- ⇒ The Líl'wat Nation asserts authority to and autonomy to its entire Territory, and an inherent right to govern itself and the uses of the lands, waters and resources of its Territory.³

For additional information about Líl'wat Nation go to www.lilwat.ca and for specific information about the Land and Resources Department go to www.lilwat.ca/lands-resources/traditional-territory-stewardship/.

³ Land Use Planning Agreement between the Líl'wat Nation and the Province of British Columbia (2008).

3 PROJECT VISION, GOALS AND OBJECTIVES

This Trails Master Plan envisions an inclusive and well-managed trail network with recreational opportunities for all that fosters:

- Environmental sustainability;
- Respect for cultural values;
- Community well-being;
- Individual well-being;
- Economic opportunity.

The specific objectives that guided the development of this Trails Master Plan were as follows:

- Create a strategy to address unauthorized trail development activities and have all new trails authorized before they are built;
- Recognize and protect significant cultural assets and Lil'wat Nation interests;
- Recognize and protect significant environmental, including wildlife, values;
- Focus efforts on desired connections and the maintenance of existing trails;
- Respects legal interests on the land, including Lil'wat Nation aboriginal rights and title, the rights of private land owners and tenure holders.
- Support and promote sustainable and safe trails for all users;
- Develop an understanding of existing trail use and anticipate future trail use trends;
- Strengthen regional collaboration and partnerships between the SLRD, the Village of Pemberton, the Lil'wat Nation, Recreation Sites and Trails BC, trail user groups, developers, forest licensees and other tenure holders; and
- Improve trails and the broader trail network as guided by community priorities.

4 BACKGROUND

4.1 REGIONAL CONTEXT AND TRENDS

The regional context and trends were evaluated by looking at trail-related demographic information, the contribution of trails to the social character of the

community, transportation options, and economic vitality. This section also discusses existing trail users, volunteer groups as well as background policy documents relevant to trails.

A Young Community

The plan area is home to a population with approximately 22% under 15, and the average age of 34. Compared to the province as a whole, which sits at 18.3%, this is a young community. The demographics of residents will influence their recreational needs. A range of trail experiences that cater to a young population should be considered.

Transportation

The majority of residents within the plan area take a car, truck, or van to work. Bus service is sporadic but there are regional initiatives underway to improve public transportation. The Winds of Change Report (2004) indicated that there is a strong need to promote safe non-motorized travel for pedestrians between Pemberton and Mount Currie. The Friendship Trail initiative that resulted from the Winds of Change Report is an attempt to help address this issue.

Local Economy and Jobs

The 2008 Sea to Sky Corridor Recreation Trail Strategy highlighted that trails are an attraction for residents, those coming from neighbouring communities, and out of town areas, providing support for local business and increasing economic activity in the region. Opportunities to bolster the local economy through the trails network, as well as provide employment opportunities for youth and First Nations youth, are discussed in the Trails Master Plan.

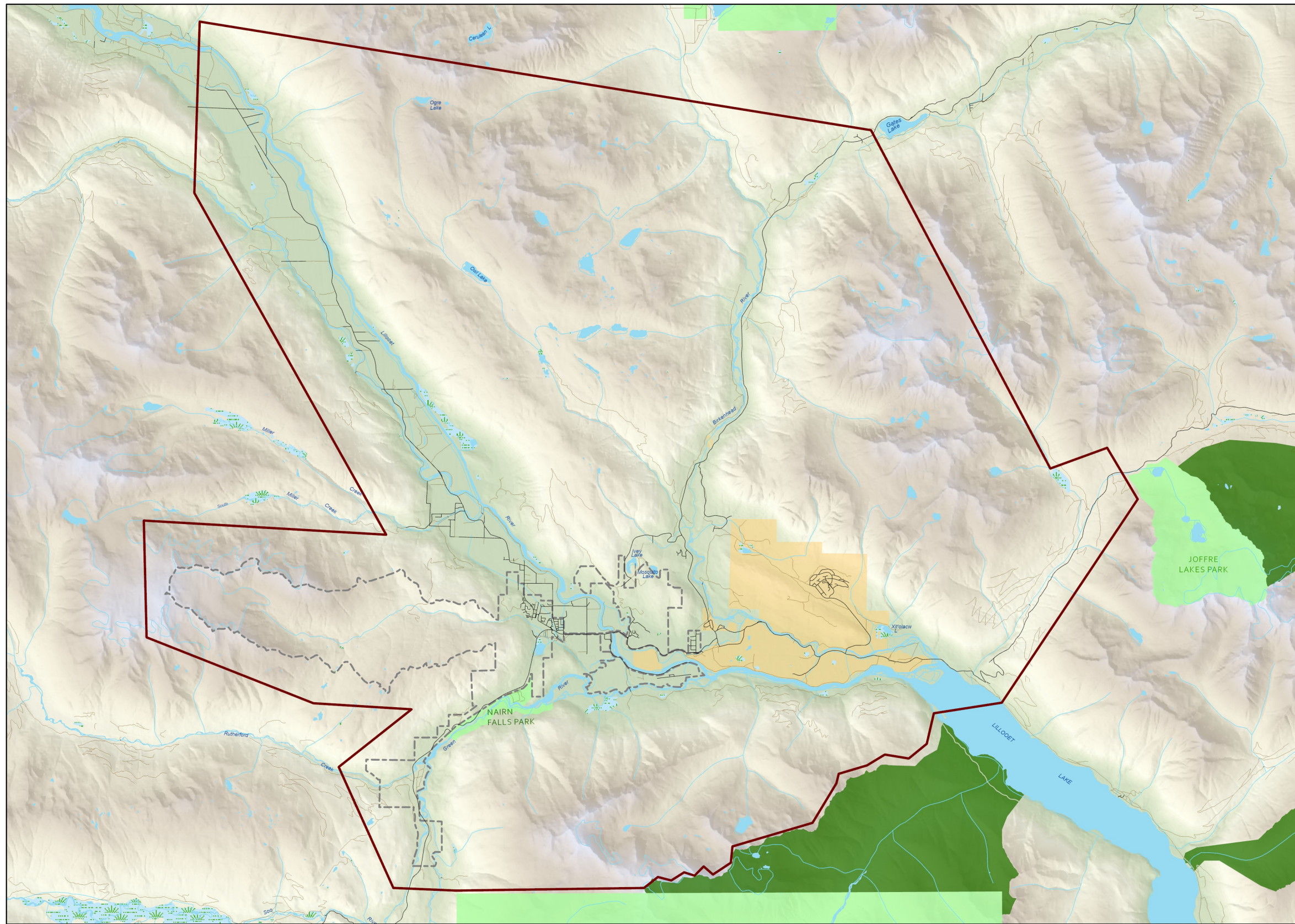
Visitor Use

Mountain biking has been the most thoroughly studied trail use. Review of data from the Sea to Sky region indicates that total mountain biking trips tripled in the decade ending in 2016. These trips can be attributed to both residents and visitors from outside the area. In the Pemberton Valley in 2016, mountain bikers took a total of approximately 32,000 trips, of which 78% were taken by residents and 22% were taken by non-residents. While mountain biking has likely been the fastest growing trail use to date, undoubtedly the number of walkers, hikers, equestrians, motorized users, among others, have also increased in recent years.

4.2 STUDY AREA

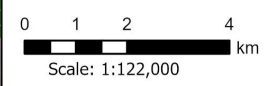
The study area for this Trails Master Plan is located in Lil'wat Nation Territory, Electoral Area C of the SLRD and the Village of Pemberton(Figure 4.). The study area

was selected to capture areas currently used for trails, as well as areas where trail and/or residential development may occur in the future.



Pemberton Valley
Trails Master Plan
2019

- Study Area
- Lil'wat Nation Reserve Land
- Village of Pemberton Boundary
- Conservancy
- Provincial Park
- Paved Road
- Dirt/Gravel Road



Map prepared by:
 Lil'wat Nation Land and Resources Department.
 December 2019.

Figure 4.1
Study Area

4.3 TRAIL USER GROUPS

The trails network supports a broad range of user groups, including:

- Lil'wat Nation traditional use;
- Mountain bikers (includes pedal assisted mountain bikes);
- Road bikers;
- Hikers;
- Trail Runners;
- Walkers and dog walkers;
- Paragliders;
- Equestrians;
- Motorized Users (ATV's, Trials Bikes, Dirt Bikes);
- Hunters and Fishers; and
- Foragers and Mushroom Pickers

4.4 TRAIL VOLUNTEER GROUPS

The trails network has a strong history of volunteerism. The following groups work actively to support and maintain the trail network:

- Pemberton Valley Trails Association (PVTA);
- Pemberton Off-Road Cycling Association (PORCA);
- Pemberton Wildlife Association (PWA);
- Rotary Club of Pemberton;
- Pemberton Backcountry Horsemen; and
- Stewardship Pemberton Society/Naturalists.

4.5 TRAILS-RELATED POLICIES

The management of trails is guided by Provincial policies and regulations, established municipal and Lil'wat Nation land use plans, and other key planning documents. The recommendations and strategies outlined in this Trails Master Plan are meant to work with and augment existing land use planning.

The following is a list of relevant documents that informed the development of this Trails Master Plan update:

- Pemberton Valley Trails Master Plan 2009
- Land Use Planning Agreement between the Lil'wat Nation and the Province of British Columbia (April 2008);
- Lil'wat Land Use Plan: Phase 1 (2006)
- Mosquito Lake Trail Use Agreement;

- Winds of Change - Friendship (Pemberton to Mount Currie) Trail;
- Recreation Trails Strategy for British Columbia;
- A Guide to Using and Developing Trails in Farm and Ranch Areas (2005);
- Sea to Sky Corridor Recreation Trail Strategy;
- Corridor Recreational Management Plan;
- SLRD Regional Growth Strategy;
- Area C – Official Community Plan Bylaw No. 1008;
- Pemberton Valley Network Plan (OCP Amendment Bylaw 734, 2001);
- Cycling Network Plan (2002 Appendix 1 to the Area C OCP);
- Pemberton Valley Recreational Trails Service Establishment Bylaw 1035, 2006.
- Lil'wat Nation Forest & Range Consultation and Revenue Sharing Agreement (2017)
- Lil'wat Nation Community Land Use Plan (2015)
- Integrated Sustainability Plan (2013)
- Sea to Sky LRMP (2008)
- SLRD Policy No. 9.2 Risk Management for Trails and Open Spaces (2009)
- Whistler Trail Standards
- Provincial Mountain Bike Policy
- Trail Strategy for British Columbia (2012)
- Pemberton Community Forest Proposed Area Map (draft, 2016)
- Pemberton Mountain Biking Economic Impact Assessment (2016)
- Local Government Act (specifically section 510)
- One Mile Lake Park Master Plan (2016)

5 METHODOLOGY

5.1 STEERING COMMITTEE

At the outset of the project, a Steering Committee composed of Lil'wat Nation, SLRD, VOP, RSTBC, and the PVTA was established. This Steering Committee played an invaluable role of the development of the Trails Master Plan offering insight into the history of the trail network and its current opportunities challenges. This committee included the following individuals:

- Allison Macdonald, Parks and Trails Coordinator, Squamish-Lillooet Regional District;
- Harriet VanWart, Director, Land and Resources Department, Lil'wat Nation;
- Carrie Lester, Referral Coordinator, Land and Resources Department, Lil'wat Nation;
- Kerry Mehaffey, Chief Executive Officer, Lil'wat Business Group;
- Jeff Westlake, Director, PVTA;
- Ian Kruger, Director, PORCA;

- Alistair McCrone, Recreation Officer, Recreation Sites and Trails BC; and
- Lisa Pedrini, Manager, Development Services, Village of Pemberton.

A kick-off meeting was held with the Steering Committee at the project outset, followed by a second meeting held midway through the project prior to the community engagement sessions. An additional meeting was held with the Steering Committee in the spring of 2019 to review the draft plan. Between meetings the Steering Committee continued to provide feedback and insight as the Trails Master Plan progressed.

5.2 COMMUNITY ENGAGEMENT

5.2.1.1 COMMUNITY OPEN HOUSES:

In April and May 2018, Brent Harley and Associates, Inc. (BHA) and Grey Owl Consulting, held Community Open Houses in Pemberton and Mt. Currie to share the work completed on the Trails Master Plan to date and gather community feedback. Feedback gathered during the Community Open House was used to inform the Final Trails Master Plan.

SUMMARY OF PEMBERTON OPEN HOUSE

The Community Open House in Pemberton was well attended, with representatives from the mountain biking, hiking, and off-road vehicle communities as well as residents interested in walking trails and commuter corridors.

Through a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis, BHA encouraged attendees to identify strengths, weaknesses, opportunities, and threats to trails in the region.

Participants were also invited to provide commentary on draft recommendations and participate in a “dotmocracy” exercise. Feedback on draft recommendations was used to refine the recommendations themselves, as well as inform the Implementation Plan.

The “dotmocracy” exercise was structured to identify priority trails, linkages, and staging points. This exercise involved placing a series of coloured stickers on large maps to identify the following: favourite trails (red dots), most frequently used trails (green dots), and important trailhead staging points in need of development (yellow dots).

In reviewing strengths of the trail network, participants stated that the area has a supportive, inclusive, and engaged trail user community. Further, the trail network itself was seen accessible, catering to multiple user groups, offering a diversity of trail experiences from beginner to advanced, is well-integrated and connected by central staging area, and is situated in a beautiful natural setting with scenic views not found anywhere else.

Conversely, trail access for those with mobility issues was seen as limited, the trail network was seen as missing key trail linkages, and participants felt that the number of beginner trails was too small for a trail network of its size. Further, many noted challenges with trail access and egress across private land, such

as the CN Rail Bridge. It was also noted that growing trail use has led to overcrowding at times and increasing, though still rare, incidents of user conflict.

Participants also noted that there was a lack of awareness of Lil'wat Nation cultural and archaeological sites among trail users, as well as lack of knowledge and information regarding how to legally build trails through the Forest and Range Practices Act - Section 57 trail authorization process.

To address these challenges, participants identified an opportunity to create a new working group composed of stakeholders charged with the continued application and evolution of the Trails Master Plan. They noted that the community, private landowners, and Lil'wat Nation seemed eager to engage with trail management, and presumably, a working group.

There was support for efforts to develop a positive stewardship ethic that promoted and showcased trail building best practices and best practices for threatened and endangered species. Related, participants noted that there is an opportunity to better integrate awareness of Lil'wat history, culture, and archaeological sites through interpretive signage.

With regard to the trail network, participants stated that clarifying areas appropriate for trail development would help concentrate effort on acceptable trail areas. Trail users who provided responses at the community meeting(s) and survey also identified opportunities for new trail linkages, increased water access, and new beginner trails to cater to a growing number of young families. Participants also noted the potential to utilize the existing trail network for winter sports, such as XC skiing, snowshoeing, and fat-tire biking.

There were also significant concerns regarding the loss of (unauthorized) trails that cross private land development. Further, participants were worried about increased overcrowding, user conflict, and environmental degradation resulting from continued population growth and visitation from non-residents. Finally, failure to engage or maintain effective communication with all trail user groups, such that some trail users are left out of trail management efforts, was seen as a major barrier to the future success of the trail network.

SUMMARY OF LIL'WAT OPEN HOUSE

In May 2018, Grey Owl Consulting led a community meeting in Mt. Currie for the Lil'wat Nation. Similar to the April 2018 Open House, the meeting provided an opportunity to present the work to date on the Trails Master Plan and solicit the community's feedback. A SWOT (Strength Weaknesses Opportunities and Threats) analysis was conducted and maps were reviewed to receive site specific input. It should be noted that maps for the study area that cover Mount Currie and east were not at the meeting.

In reviewing the strengths of the trail network, participants identified some areas of the trail network as providing benefits to Lil'wat community members for recreation and providing access to mushroom gathering areas. The Lil'wat Trail Monitors initiative was also raised as a positive employment opportunity for Lil'wat youth.

Issues, or weaknesses, discussed were regarding the large number of unauthorized trails throughout the region and concerns about impacts on cultural sites, wildlife, hunting and gathering activities and leading to overall environmental degradation. It was also noted that there are unauthorized staging areas and garbage left in these areas.

People expressed concern that there is lack of measures in place to protect cultural sites, as well as lack of knowledge among trail builders about the cultural sites and cultural values out on the land. Better enforcement or physical barriers were suggested to address this as well as reduce environmental degradation. Fees for trail use was also suggested, and then using the funds to maintain and protect sensitive areas.

Also, a need for better transportation and commuter-type trails to link Pemberton, Mount Currie and D'Arcy was discussed.

In the discussion about opportunities, participants saw the high level of trail use as an opportunity to educate the public about Lil'wat history and culture. This could be done through territorial acknowledgement and information about Lil'wat Nation on interpretive signs throughout the trail network. Information about Lil'wat Nation could also be included in pamphlets at the Tourist Information Booth in Pemberton, on websites, and other places where people may be seeking information about trails. Larger interpretative signs could be set up at key locations or staging areas. The process to authorize trails could include these types of requirements. Trail builders would then be required to take on this responsibility if permitted to build new trails.

Key threats identified included increasing human – wildlife conflicts due to the existing and ongoing proliferation of trails encroaching on wildlife habitat. Also, trail erosion from improperly built and overused trails. Erosion can lead to damage to fish bearing streams. There was a concern about mountain bike trails being built on top of important cultural trails, for example the Owl Creek Skelulaw7 Trail and the threat of the increasing popularity of mountain biking causing this to continue. Social media and google earth apps are also seen as a threat leading to more people accessing trails and less control over trail use. There is also the risk of trails becoming overcrowded.

Upon review of the maps available (as mentioned above not all maps were available at the meeting for review), a discussion about site specific information included the following:

The need to protect the archaeological site at the Cream Puff trail;

Wild Bill trail area is heavily used by wildlife and is an active migration corridor. To protect wildlife, trail use should be minimal, with no domestic animals allowed;

There is an old trail from IR10 Railway (near the old suspension bridge) that connects to Xet'olacw. The suspension bridge is out of commission, but the trail route could be explored if the bridge was fixed; and

Concerns with all valley bottom trails as they have potential to impact wildlife, for example bear feeding grounds.

Further recommendations arising from the meeting included using Ucwalmícwts in signs; having educational information in pamphlets and kiosks at recreation stores and gas stations; notifications about wildlife in certain areas so people can stay away at certain times of the year; and keeping trails confined to certain areas and not letting them branch out to new areas. It was also recommended that Lil'wat Technicians be used to assess trails for cultural, wildlife and environmental values and that Lil'wat policies such as the Botanical Resources Strategy should be respected.

5.2.1.2 COMMUNITY SURVEY:

To complement the public open house and community meetings, an online survey was offered from April 9 to May 31, 2018 through both the SLRD and Lil'wat Nation websites. The survey was designed to collect background information on trail users, trail usage by activity type and area, and respondents' opinions regarding the opportunities and challenges facing the Pemberton Valley trail network. A detailed summary of the survey is presented in Appendix A.

COMMUNITY SURVEY RESULTS:

The majority of survey respondents (51.23%) were from the Village of Pemberton, while 7.12% were from Lil'wat Nation and another 19.73% were from the SLRD Area C. Respondents ranged from under 18 to 65 or older, but most were aged 35 to 64 (~95%) with those 35 to 44 comprising 41.37% of respondents. Based on survey responses, the average trail user spends 40 days each year on the trail network. This includes all forms of trail use, including commuting and dog walking.

Almost all respondents used the trails in the study area (94%), with exercise, closeness to nature, stress reduction, and physical challenge being the key motivators. The most preferred types of trail use were strongly grouped around cycling (cross country mountain biking, downhill mountain biking, and road cycling) and pedestrian activities (walking, hiking, dog walking, and trail running), while motorized activities (ATV, trials motorcycle, dirt bike) were the least preferred.

Trail use is dispersed throughout the study area but most heavily concentrated in the One Mile Lake, Mackenzie Basin, and Mosquito Lake areas. The most frequently used trails are the One Mile Lake Loop and access trails which receive more than 12% of all trips taken each year. Other heavily used trails are the Waco Connector, Dog Beach, Nimby, Valley Loop, Overhill, Piece of Cake, and Radio Tower which each receive approximately 2.5% of all trips taken annually. Overall, single track trails with a natural surface were greatly preferred (76%) over other trail types.

Based on responses, walking/dog walking was the dominant activity in the One Mile Lake and Village of Pemberton areas, while mountain biking (cross country/downhill) was dominant in all other areas. Secondary uses were more varied, with trail running prominent within One Mile Lake, Village of Pemberton, Mackenzie Basin, Mosquito Lake, and Upper Benchlands areas. Motorized use (ATV/dirt bike) was prominent in the Rutherford and Highway 99 South areas.

Trail users who provided responses at the community meeting(s) and survey identified numerous and varied favourite trails. Over 80 trails were identified as a favourite trail by respondents. Notably, these

trails include hiking/walking trails, cross-country mountain bike trails, and downhill mountain bike trails. The top 20 favourite trails as rated by respondents were:

Trail Area	Trail Name
<i>Mackenzie Basin</i>	Overnight Sensation
	Nimby
	Back Pains
	Happy Trail
	Bob Gnarly
	Rudy's
	Max Pains
	Rusty Trombone
	Hawaii
<i>Mosquito Lake</i>	Cream Puff
	Radio Tower
	No Err
	Econoline
<i>Upper Benchlands</i>	Fat Tug
<i>One Mile Lake</i>	Pioneer
	Fizzy Pop
	Dog Beach
<i>Rutherford</i>	Upper and Lower PhD
<i>Valley Floor</i>	Valley Loop Trail

Similar to the most used trails, respondents' favourite trails were primarily located in the Mackenzie Basin and Mosquito Lake areas.

Respondents indicated that the primary issue facing the Pemberton Valley trail network is poor signage and wayfinding, while conflicting land use and erosion of trails were also seen as concerns.

Community perception of trail user conflict was mixed with respondents split evenly (Yes - 49.38%, No - 50.64%), though the frequency of conflict regardless of user type was very low. To address trail user conflict, respondents did not indicate a preferred approach but instead favoured a mix of methods that

include a preference (64% in favour) for the creation of designated use trails (e.g. hiking only, equestrian only, etc.).

To address the growing concern regarding unauthorized trails in the Pemberton Valley, trail users who provided responses at the community meeting(s) and survey were strongly in support of stronger communication and education, the improvement of the FRPA Sec. 57 authorization process, and legal penalties (e.g. fines). Many respondents stressed the need for better communication between all stakeholders to share concerns and work towards mutually beneficial solutions. Education was a strong theme in survey results. Improved education concerning the potential negative impacts of unauthorized trail building, sustainable trail building methods, and the process to authorize a trail under FRPA were all strongly supported by respondents. Related to education, many respondents noted the need for improved signage illustrating authorized trails but also outlining the process to have trails authorized under FRPA. Many respondents also stressed the need to improve the authorization process under FRPA as a means to reduce the number of unauthorized trails. Simplification and greater transparency of the application process was highlighted repeatedly, as was a need to provide trail builders with greater support, both financial and logistic, through the application process.

Looking to the future, respondents indicated that installing trailhead signage was the most important task, followed by installing signage at trail intersections, repairing, restoring, or rerouting trails that are in disrepair, and improving links between trails. Respondents are also eager to help make these improvements a reality, with the majority members of trail organizations that contribute to trail maintenance (74%) and committed to help maintain or build trails (76%).

5.2.1.3 STAKEHOLDER MEETINGS:

Stakeholder meetings were held with members of the Pemberton Wildlife Association (PWA), PVTA and Pemberton Dirt Bike Association, to discuss various sections of the plan.

Members of Pemberton Wildlife Association reviewed an early draft of the plan and recommended a seasonal closure of the Mackenzie Basin ungulate winter range to everything except foot traffic. This closure has been recommended here as a voluntary closure (none of the local organizations have the authority to close the area).

Members of PVTA reviewed an early draft of the plan and made recommendations for changes. There was concern regarding the amount of “no build zones” within the plan.

Members of Pemberton Dirt Bike Association notified the SLRD that they are looking to build a s. 57 authorized trail for dirt biking on the south side of the Rutherford Creek, outside of this Plan area.

A workshop was held with the various trail groups from the Pemberton area on June 13, 2019 to review the draft Trail Master Plan and provide specific recommendations for existing trail upgrades and minor reroutes, new construction as well as decommissioning of trails within the study area. There was

representation from the mountain bike community, both riders and builders, equestrian riders, trail runners and walkers.

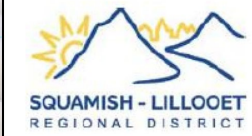
6 TRAIL NETWORK

6.1 OVERVIEW OF EXISTING TRAIL NETWORK











According to the Sea to Sky Corridor Recreation Strategy (2008), the Pemberton area trail network is approximately 240 kilometres. The existing trails vary from relatively flat, multi-use trails in the valley bottom to mountain bike descents along the steeper valley slopes. The majority of the trails are within relatively close proximity to populated areas.

For planning purposes and the development of detailed recommendations, the existing trail network has been divided into the following main trail areas (Fig. 6.1):

- One Mile Lake Trail Area
- Upper Benchlands Trail Area
- Mackenzie Basin Trail Area
- Mosquito Lake Trail Area
- Wild Bill Trail Area
- Highway 99 South Trail Area
- Rutherford Trail Area
- Valley Floor Trails



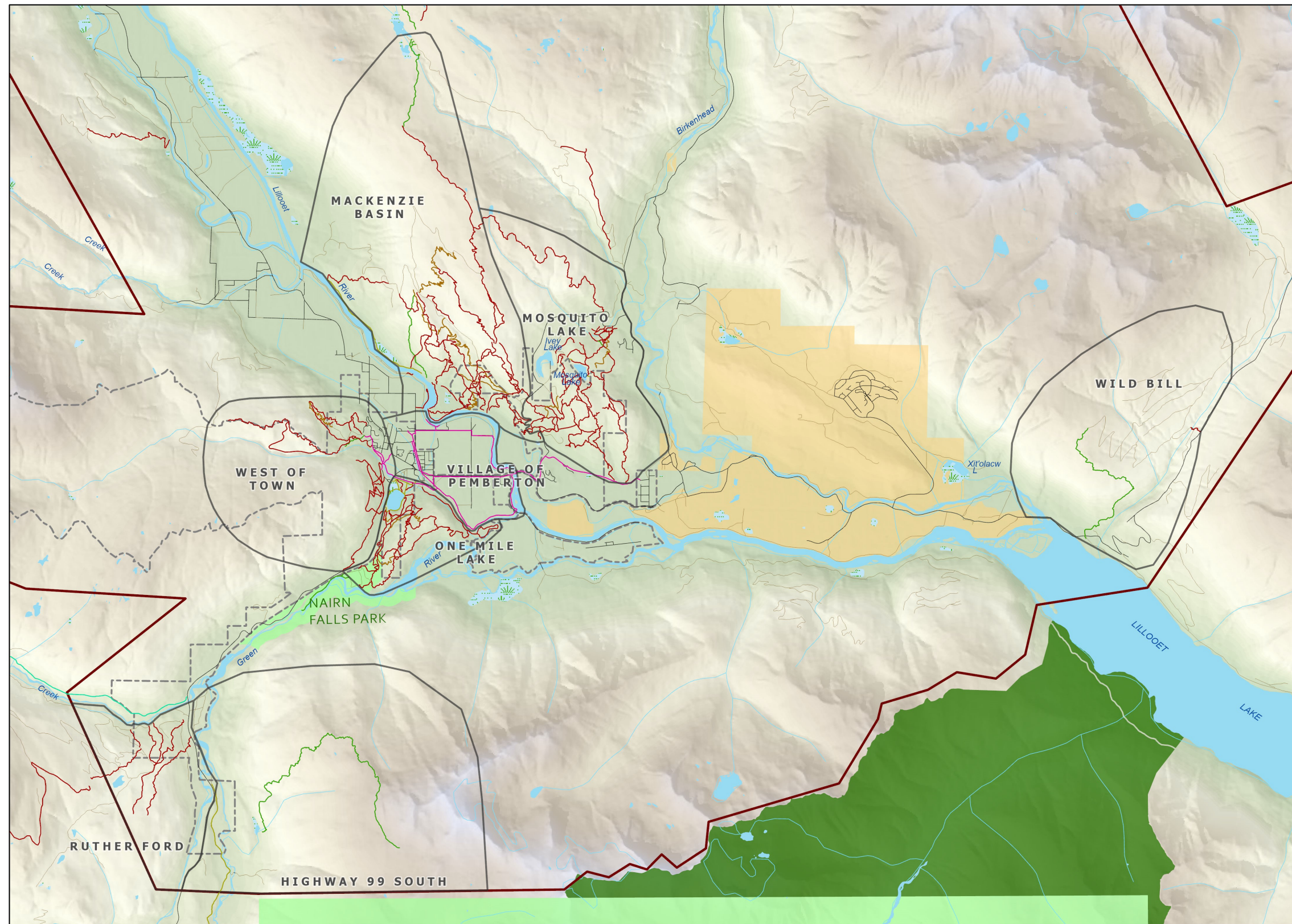
Pemberton Valley
Trails Master Plan
2019

-  Trail Area Subsets
-  Study Area
-  Lil'wat Nation Reserve Land
-  Village of Pemberton Boundary
-  Provincial Park
-  Conservancy
-  Paved Road
-  Dirt/Gravel Road
- Trails**
-  Community-Multiuse
-  Doubletrack
-  Hiking
-  Singletrack
-  Singletrack-Climb
-  Snowmobile

0 0.5 1 2 km
Scale: 1:75,000

Map prepared by:
 Lil'wat Nation Land and Resources Department, December 2019.

Figure 6.1
Trails and Trail Area Subsets



6.1.1.1 TRAIL TYPES - DIFFICULTY RATINGS

At the present time, only the mountain biking trails have an assigned difficulty rating (Fig. 6.2). The distribution of trail difficulty of the named mountain bike trails in the study area is:

Green - 14%

Blue - 37%

Black Diamond - 36%

Double Black Diamond - 13%

Looking forward, consideration should be given to developing a difficulty rating system for multi-use trails (i.e., hiking difficulty ratings) that can be displayed alongside the mountain bike ratings on signage.

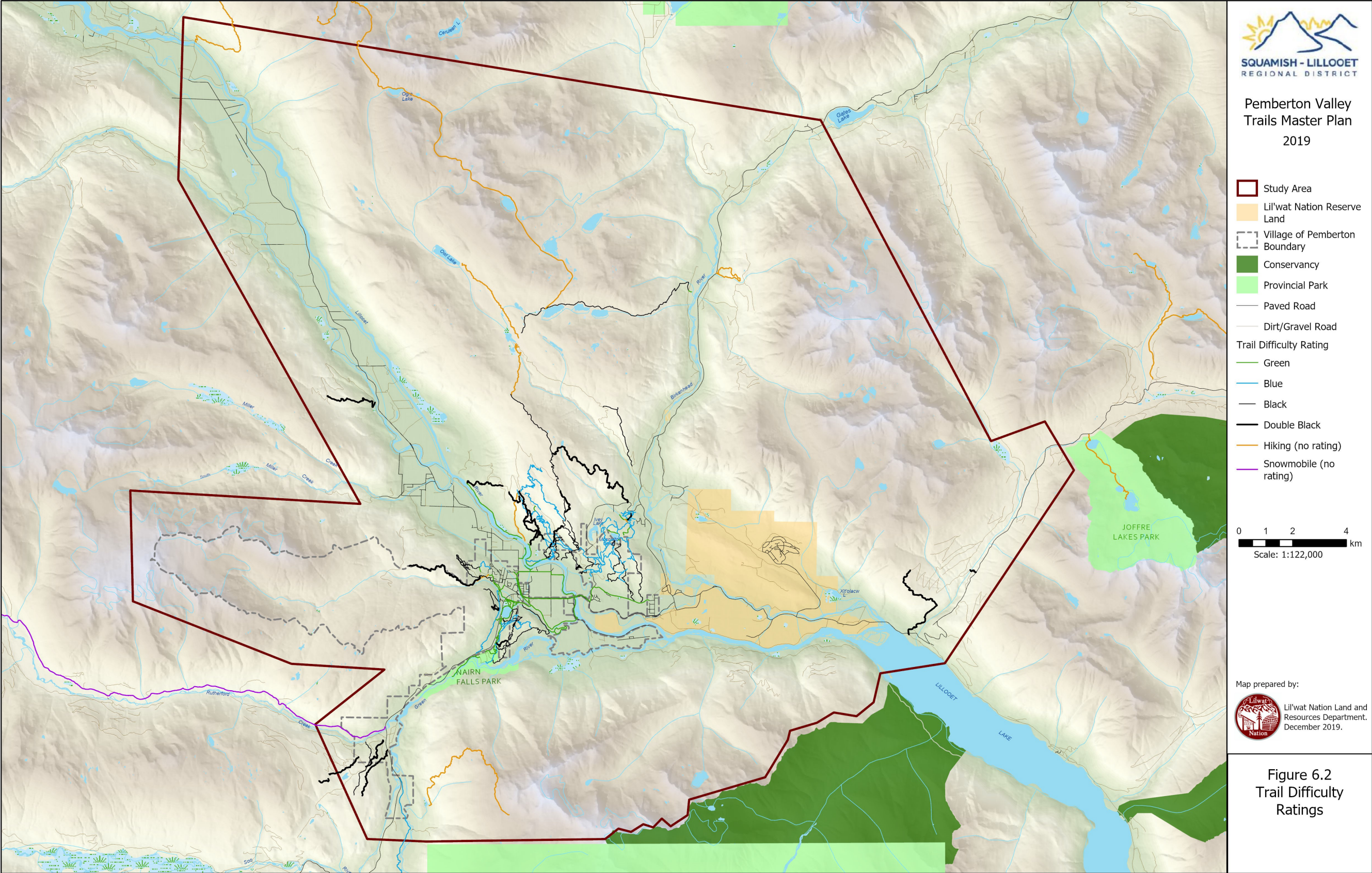
6.1.1.2 SPATIAL SEPARATION OF TRAIL USES

Currently, all user groups use the same trail network with little spatial separation of user types. While this has not presented significant issues to date, it has the potential to increase in the future. Future trails planning will need to consider opportunities to create spatially distinct trails for different user groups. A limited number of trails are designated as “hiking only” as shown on the trail area mapping.

6.1.1.3 TRAIL CLASSIFICATIONS

In addition to trail designations, the design of the trails themselves can support different types of usage. Currently, the SLRD uses the Whistler Trail Standards for classifying trails.

The draft Recreation Sites and Trails BC Trail Classifications and Standards presented in Fig. 6.3 can be used as a starting point for the design and development of new trails or upgrades to existing trails. The version presented has been amended to include First Nations Traditional Use under Type 3 and 4 to better reflect the realities in the Pemberton Valley.



	Type I	Type II	Type III	Type IV	Abandoned Resource Road
TRAIL SURFACE (TYPICAL)	ASPHALT OR CRUSHED AGGREGATE	CRUSH AGGREGATE OR NATURAL MINERAL SOIL SURFACE	NATURAL MINERAL SOIL SURFACE	NATURAL SURFACE, LOOSE SURFACE	HARDENED ROAD SURFACE, ROAD BASE AND AGGREGATES
Typical average width	1.5m to 3.0m	1.0 to 2.0m	0.3m to 1.2m	0.3m to 0.5m	>3.0m
Average Grade	0% - 4%	5% - 8%	8% - 10%	8% - 12%	NA
Maximum Grade	7%	12%	10%	15%	20%
Typical Uses	Hiking, cycling, XC skiing, equestrian, snowshoe	Hiking, cycling, xc skiing, OHV, equestrian, snowshoe	Hiking, cycling, First Nations traditional uses, XC skiing, OHV, equestrian, snowshoe	Hiking, First Nations traditional uses, backcountry skiing, limited cycling (usually not appropriate)	All
Typical setting	Developed and urban areas, community connector	Semi-developed, front country, forested	Front country, backcountry, wilderness	Alpine, wilderness, remote	Forested, resource areas, wilderness, backcountry
Descriptor	Pathway	Double Track	Single or double track	Route	

Figure 6.3

6.2 TRAIL AUTHORIZATION PROCESS

6.2.1 TRAILS ON CROWN LAND- EXISTING LEGISLATIVE FRAMEWORK

The majority of trails within the scope of this plan area are unauthorized. A limited number of trails in the existing trail network have been authorized by Lil'wat Nation. There are also a large number of trails that have received authorization from the Province under Section 56 or 57 of the Forest Practices Act without approval by Lil'wat Nation.

(A list of trails with the associated existing authorizations is provided in Appendix B. The trails are also shown on the map in Fig. 6.4).

Aboriginal and Crown title has not been reconciled within Lil'wat Territory, including the land base within the scope of this Trails Master Plan. As a result, the Province has a legal duty to consult with the Lil'wat Nation prior to authorizing land uses within Lil'wat Territory. Trails on Crown land are also subject to the Forest and Range Practices Act, a provincial legislative framework that informs trail authorization and new trail development on Crown land.

6.2.1.1 LIL'WAT NATION AUTHORIZATION AND ESTABLISHMENT PROCESSES

Authorization for the development and establishment of trails requires consultation with Lil'wat Nation. The Lil'wat Nation Consultation Policy outlines their process for engaging in consultations regarding land use decisions throughout Lil'wat Territory. The process is guided by the Land and Resources Department. A formal letter and mapping information must be submitted to the Land and Resources Department. The Department will then review the application with its Land Use Referral Committee, who meet on a monthly basis. The Committee may support or oppose the authorization of the proposed trail or may decide that the decision be brought to Chiefs and Council. Chiefs and Council are typically provided land use referrals for activities deemed to have significant impacts on Lil'wat interest. Furthermore, the Land Use Referral Committee, or Chiefs and Council, may determine that community consultation is required on a land use decision, and determine what form that will take.

Timing to process and provide a response on an application for trail authorization may range from 45 days to 3 months or potentially longer. Providing sufficient information upfront, including a letter outlining the intent for the trail authorization and mapping information (digital if possible) can greatly expedite the process. In some instances, the Land Use Referral Committee may request to meet directly with the proponent to ask question and gain better understanding about the proposed trail.

Decisions by the Lil'wat Nation will be guided by the existing and relevant Lil'wat Nation policies, as outlined in Appendix C including this Trails Master Plan.

6.2.1.2 PROVINCIAL AUTHORIZATION AND ESTABLISHMENT PROCESS UNDER FOREST AND RANGE PRACTICES ACT

The majority of trails on Aboriginal / Crown Lands are authorized and established through the Provincial Forest and Range Practices Act. It is important to note that recreation sites and trails on Crown land reside within a working forest are not in Parks and are not protected. In many cases, there are other stakeholders who have tenured rights to these sites or trails whose rights supersede those of trail users.

The following sections of the Forest Range and Practices Act (FRPA) apply to trails:

SECTION 57 AUTHORIZATION PROCESS:

A Section 57 authorization provides the authority to construct, rehabilitate, or maintain a trail on Crown land. (Note: Marking a trail with semi-permanent indicators such as ribbons or cairns does not require authority under a Section 57 authorization). Section 57 permit does not grant any formal tenure or rights, or legal protections to the trail or feature.

An application is submitted to and received by the Recreation Office via FRONTCOUNTER BC. The application must meet a set of certain conditions to proceed. These include (but are not limited to):

Application is made by an organized group with a demonstrated ability to construct/maintain the trail and/or other recreational works;

Proposal has no major conflicts with applicable land use plans;

Proposed trail or works must be entirely on Crown land or have the written consent of the local government, provincial agency, landowner, leaseholder, etc.; and

If needed, a management plan for the development is submitted as part of the proposal (for significant development).

If the Recreation Officer finds that the proposal passes this initial screening, it is sent out for referral to:

First Nations: The Province has a legal duty to consult with First Nation regarding land use decisions that may infringe on First Nations aboriginal rights, including title. Lil'wat Nation has an established referral process to receive and respond to Provincial government referral letters arising out of their legal duty to consult. Lil'wat Nation will also engage directly with organizations seeking authorization for trail development or maintenance, such as Pemberton Valley Trail Association and Pemberton Off-Road Cycling Association.

This plan recommends contacting Lil'wat Nation first, prior to applying to RSTBC for a Section 57.

All Recognized Stakeholders, such as Local and Provincial Government, Clubs, Tenure Holders, Licensees: RSTBC distributes an application to impacted industries, and communities for their comment and feedback. It is critical that all stakeholders have their concerns evaluated as a proposal is developed. This helps to build stakeholder confidence as the project moves through the referral process.

If possible, identified problems are addressed through negotiation between the proponent, RSTBC and the referee; and If relevant issues are successfully addressed, the works can be authorized under Section 57 of the Forest Range and Practices Act, and a trail can be constructed.

SECTION 56 ESTABLISHMENT PROCESS:

A Section 56 Establishment is similar to a tenure. Establishment results in a change in status of the Crown land in question and places responsibility for management of the trail or site on the Provincial government. Due to the limited resources of the Recreation Sites and Trails BC (RSTBC), only trails where a Partnership Agreement (Sec. 118) is signed with an organization will be considered for s. 56. If the Recreation Officer agrees to establish a recreational feature, the proposal will be sent out to all stakeholders for commentary. Similar to the Section 57 Authorization process, problems are addressed through negotiation. If these issues are addressed successfully, the outcomes are included in a Management Intent (management plan). The Management Intent and request for Establishment is sent to the Minister of FLNRORD for approval. Once signed, the recreation feature is established under Section 56 of the FRPA as a Provincially Managed Recreation Feature.

The provincial section 57 application form includes a check box to indicate whether the proponent is also applying for s. 56 status for the trail. The FRPA application forms and guidelines are presented in Appendix D.

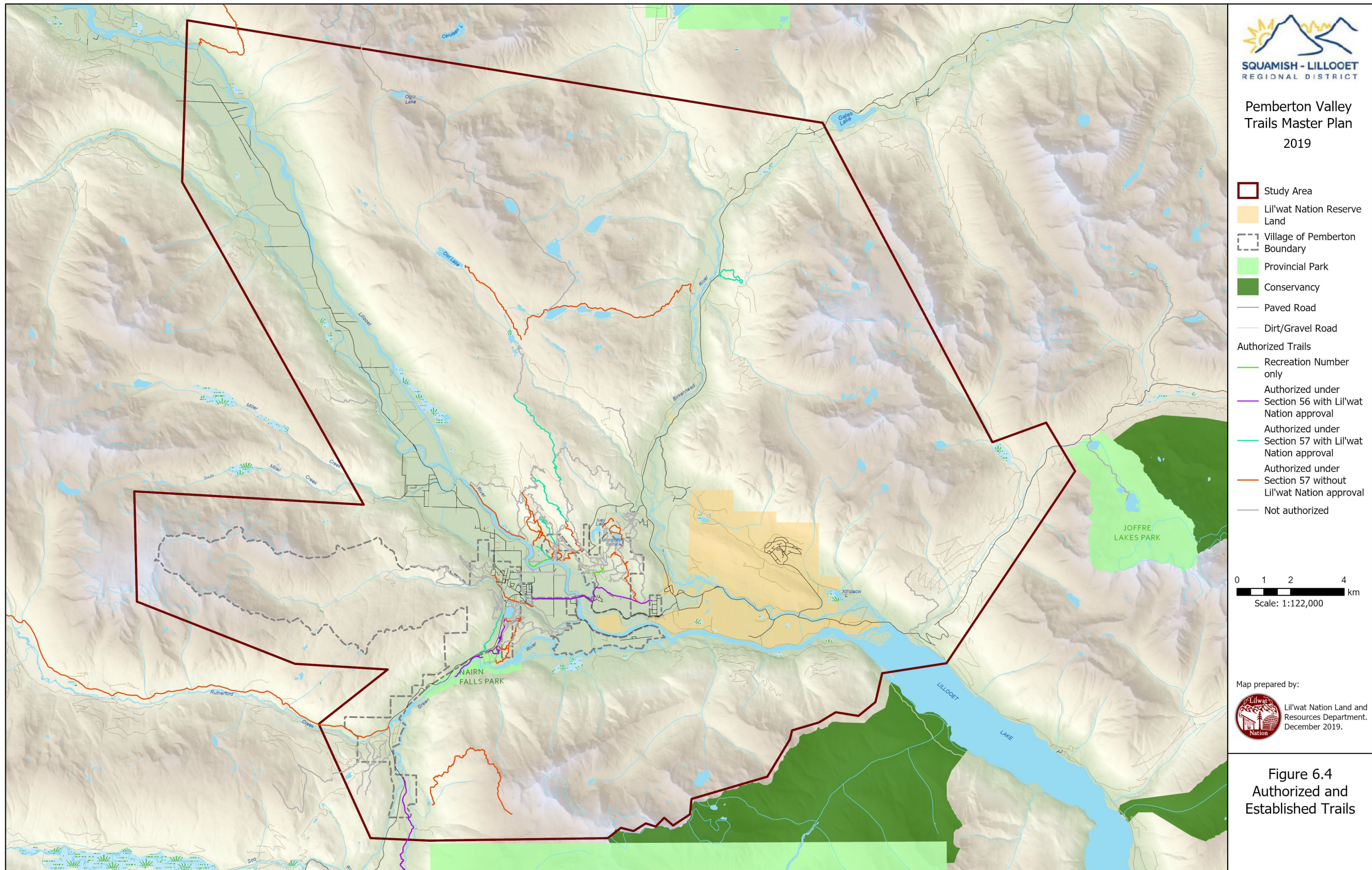
SECTION 118 PARTNERSHIP AGREEMENTS:

As noted above, a condition of establishing a trail on Crown Land in the Sea to Sky Recreation District is that an organization must enter into a Partnership Agreement with the province, to take on responsibility for maintenance of the trail.

Agreement holders are responsible for managing recreation sites and trails to the standards specified in their partnership agreement. RSTBC is responsible for administering and monitoring agreement holders to ensure they carry out the responsibilities defined in the agreement. In addition, RSTBC may be responsible for replacing infrastructure and removing hazard trees.

6.2.1.3 EXISTING AUTHORIZED/ESTABLISHED TRAILS

See Appendix B and Fig. 6.4



6.2.2 TRAILS ON OTHER LAND TYPES

6.2.1.4 TRAILS ON MINISTRY OF TRANSPORTATION ROAD ALLOWANCES

Some valley bottom trails such as portions of the Friendship Trail and Valley Loop are located on undeveloped road allowances or beside existing roads, within Ministry of Transportation and Infrastructure (MOTI) rights of way. Permits for “works on a right of way” are required for these trails from MOTI.

6.2.1.5 TRAILS WITHIN BC PARKS

Nairn Falls Provincial Park is located within the study area. BC Parks issues Park Use Permits for trails within Parks. Park Use Permits require consultation with First Nations and are guided by each park’s Park Management Plan. Any trail within a provincial park would require a Park Use Permit from BC Parks.

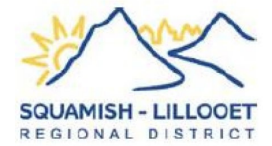
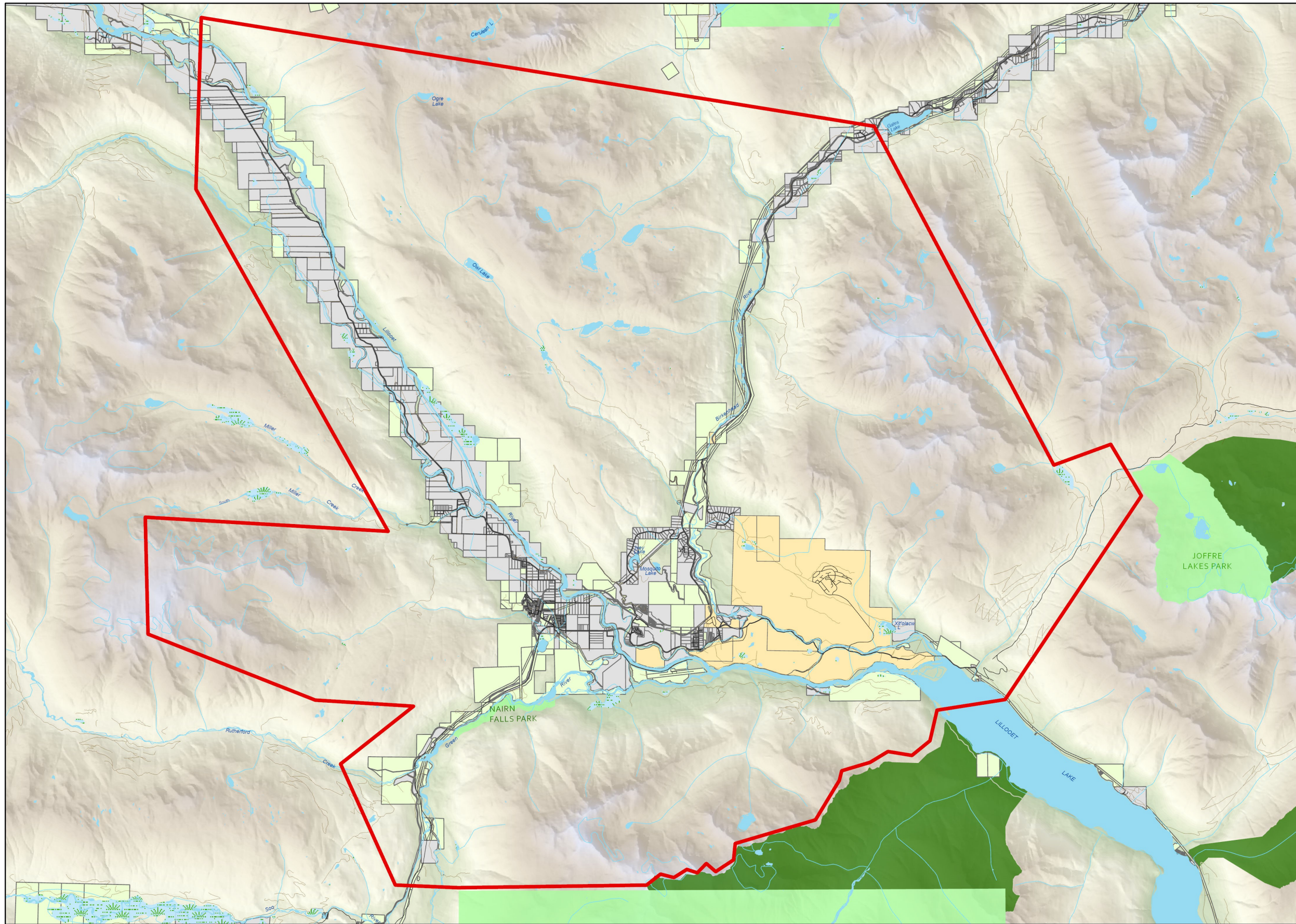
6.2.1.6 MUNICIPAL TRAILS

Fig. 7.8 shows the Village of Pemberton Municipal boundary and the existing trails within that boundary. The Village of Pemberton both owns and manages lands (“municipal crown lands”) within its boundaries for trail use, parks, and road rights of way, including some of the identified One Mile Lake Trail Area closest to the lake. Trails on Municipal Crown Land require a permit from the Village of Pemberton and consultation with Lil’wat Nation. Trails on provincial Crown Land within the Village of Pemberton are still managed by Recreation Sites and Trails BC and still require authorization through the Forest and Range Practices Act and consultation with Lil’wat Nation.

6.2.1.7 TRAILS ON PRIVATE LAND

There are approximately 13.5 km of recreational trails on private property, the majority of which are in the Mosquito Lake area. While 13.5 km represents a small percentage of the total length of trails, many of these trails see intense use. These trails can be categorized as follows:

- Existing Trespassing Trails - In most cases, informal pathways that have experienced a limited number of users, until the recent growth of Pemberton. There are several instances where property owners have barricaded access points to limit public access, or where there are liability concerns.
- Existing Permitted Trails - Informal trails where the property owners have allowed (both legally and informally) use of the property for trail access, such as Naylor Way.
- Existing Trails on land later Designated Private Property. A number of unauthorized trails existed in the Mosquito Lake area before Crown land was acquired by Lil’wat Nation in fee simple title (as privately held land). The trails continue to be used and new trails continue to be developed without authorization or permission by Lil’wat Nation. It will be a priority to address this trespass and clarify a management strategy that respects Lil’wat Nation private land interests. The current breakdown of land ownership is illustrated in Fig. 6.5.



**Pemberton Valley
Trails Master Plan
2020**

- Study Area
- Crown Land
- Private Land
- Reserve Land
- Provincial Park
- Conservancy
- Paved Road
- Dirt/Gravel Road

0 1 2 3
 Km
 Scale: 1:122,000

Map prepared by:
 Lil'wat Nation Land and Resources Department, January 2020.

**Figure 6.5
Land Ownership
Breakdown**

6.2.1.8 LIL'WAT NATION OPTION LANDS

The Trails Master Plan applies to “Option Lands” where Lil’wat Nation has the option to purchase designated Crown land parcels for private ownership in fee simple. These parcels are illustrated in Fig. 6.6. While the land is currently Crown owned and RSTBC can issue permits to construct, trail users should be aware that Lil’wat Nation may decide in the future to convert this land to private land to be held and developed by Lil’wat Nation.

6.2.1.9 CN RAIL RIGHTS OF WAY

The CN Rail corridor represents a challenge for the Pemberton Valley trail network. The rail corridor runs through many popular trail areas. CN Rail policy does not allow any trails within its rights of way (other than legally established road crossings). To enable an integrated trail system within the Pemberton area, it will be necessary to cross existing rail rights of way. Securing safe and legal crossings will continue to be a priority in future trails planning.

6.2.2 TRAILS IN SENSITIVE AREAS

6.2.2.1 ENVIRONMENTALLY SENSITIVE AREAS

There are a range of provincially designated environmentally sensitive areas on Crown land within the study area. These include Old Growth Management Areas (OGMAs), Wildlife Management Areas (WMAs), Community Watersheds, Riparian Areas, as well as habitat for Federally and Provincially listed species at-risk. When a trail application is assessed by RSTBC, the following environmental designations are considered vis a vis the trail proposal.

6.2.2.2 OLD GROWTH MANAGEMENT AREAS (OGMA)

Old Growth Management Areas (OGMAs) contain significant environmental values, including habitat for a large diversity of mammals, birds, reptiles, and aquatic species. An OGMA is not a restriction on s. 57 permits and s. 56 trail establishment as long as trees are not disturbed.

6.2.2.3 WILDLIFE MANAGEMENT AREAS

Wildlife Management Areas (WMAs) are the primary tool for conservation lands in British Columbia. A WMA is an area of land designated under section 4(2) of the Wildlife Act for the benefit of regionally to internationally significant fish and wildlife species or their habitats. Conservation and management of fish, wildlife, and their habitats is the priority in a WMA, but other compatible land uses (such as trails) may be accommodated.

6.2.2.4 COMMUNITY WATERSHEDS

Development of trails in community watersheds is subject to higher scrutiny due to the potential for impacts on drinking water. In general, watershed areas are only open to low levels of recreational use.

There are two community watersheds within the Plan area – the Pemberton Community Watershed and the Peq Community Watershed.

6.2.2.5 RIPARIAN AREAS

Riparian areas are those lands adjacent to streams, lakes, and wetlands. These areas support a unique mix of vegetation that provide for and directly influence fish habitat. Under the provincial Riparian Areas Regulation (RAR), local governments are obligated to protect these sensitive areas. Riparian areas are defined as: a watercourse; a pond, lake, river, creek, or brook; a ditch, spring, or wetland that is connected by a surface flow to a fish bearing habitat. Sensitive riparian areas, including wetlands, are shown on the mapping in this report. On Crown Land, Recreation Sites and Trails BC will check trail construction applications against riparian areas and make modifications as necessary, for example to proposals that would lie below high-water marks, or where water crossings are proposed.

On private lands, local government bylaws (Village of Pemberton or SLRD) regulate development in riparian areas.

6.2.2.6 FEDERALLY AND PROVINCIALLY LISTED SPECIES AT-RISK

Several at-risk species that are federally and provincially listed have been found within the study area. As a listed species, a federal or provincial agency has evaluated and established that the species is endangered, at-risk of becoming endangered, or of special concern. Trail applications (s. 56 or 57) to RSTBC are screened for conflicts to species at-risk. A trail application which overlaps a species at risk would be required to modify its route.

Within the study area, two at-risk species have been identified.

- Spotted Owl (*Strix occidentalis*)
Status: Endangered (Canada), Red (BC)

Spotted Owls, primarily found in old-growth coniferous forests, have been found in the vicinity of Lillooet Lake and the Upper Birkenhead Valley. Populations of Spotted Owls have been declining over past decades, most likely from habitat loss.

- Sharp-tailed Snake (*Contia tenuis*)
Status: Endangered (Canada), Red (BC)

Sharp-tailed Snakes' dens and rookeries have been found in the Mackenzie Basin area at lower elevations. The population in Pemberton is at the northern most extent of the species range, and is spatially isolated from other populations. The snakes prefer to live underground, only emerging at certain times of the year.

Due to concerns regarding species preservation and conditions stipulated in data sharing agreements, the exact locations of these species within the study area cannot be included in the Trails Master Plan. However, as efforts to locate and identify the presence of at-risk species and their habitat is ongoing, any map would be incomplete and may provide a false sense of security for trail planning. Instead, as trail

planning and development occurs, it would be beneficial to actively search for individuals and habitat in collaboration with wildlife professionals.

6.2.2.7 NATURAL HAZARDS

The existing natural hazards that may influence existing or future trail development include terrain stability hazards and flood risk. The development or improvement of trails should be discouraged in areas with unstable slopes. Trails travelling through areas with potential flooding may be subject to temporary or permanent closures, and may require extensive infrastructure (e.g. bridges, raised boardwalks) to ensure their long-term viability.

6.2.2.8 CULTURALLY SENSITIVE AREAS

The Pemberton Valley contains a large number of Lil'wat traditional, cultural, and archaeological sites. The Lil'wat Nation has experienced negative impacts from trail use, such as displacement from traditional use sites and impacts to cultural and archaeological sites. Working with the Lil'wat Nation to identify culturally sensitive sites and areas during the trail planning and development process are critical components of these efforts. Refer to the Sea to Sky Land and Resources Management Plan (LRMP) for more details on Cultural Management Areas, and the Lil'wat Land Use Plan (2006) for further information on Lil'wat Nation cultural interests and values on the land. In addition, the Heritage Conservation Act of British Columbia should be consulted to understand the legislation surrounding the protection of archaeological values.

6.2.2.9 AGRICULTURAL LAND

Pemberton is an agricultural community, and the trail development and use has had an impact on agricultural activities. The primary concerns related to the interface between trails and farming are the following:

Threats the agricultural use and viability of the land resulting from trespassing, theft of crops, littering, and/or vandalism;

Unintended introduction of invasive plant species; and

Disruption of farm activities and livestock by pets (i.e. dogs).

Farming activities could also compromise a trail's recreational experience by encroaching onto a right of way, run-off from irrigation, and spraying of chemical pesticides and fertilizers.

7 PRIORITIES BY TRAIL AREA

To create a strategic management approach, the existing trail network was divided into Trail Areas which capture high concentrations of existing trails. These Trail Areas represent a key planning tool in the development of this Trails Master Plan.

The One Mile Lake area is easily accessible by foot or bicycle from trails located within the Village of Pemberton, as where vehicular access is provided well as from Highway 99. The majority of the One Mile Lake area is a municipal park with adjacent crown land and BC Park lands to the south and southwest respectively. Many Lil'wat Nation cultural and archaeological sites fall within these lands and a Category "B" Spirited Ground Site⁴ has been established for the majority of the area. (see Fig. 7.1).

There is a large gravel parking lot above the lake that serves as the main staging point for trail users. Secondary access to the area is directly from the Village across Pemberton Creek. The area sees intense use from hikers, walkers and mountain bikers and occasional equestrian use.

Opportunities:

- Utilize the existing Lil'wat Nation interpretive sign at the One Mile Lake parking area to educate the public about Lil'wat Nation history and culture. Clarify approval process for placing any interpretive or trail signage in One Mile Lake Park with VOP before erecting.
- Clarify approval/referral process with VOP to add or enhance trails within One Mile Lake Park.
- Equestrian use within heavily used areas of One Mile Lake Park is not permitted (Rotary Trail, Lake Loop, Boardwalks); however, horses are permitted on the One Mile Lake Nature Centre service road that follows Pemberton Creek and on the west side of Highway 99, along the Tour de Soo Trail.

Constraints:

- Consult with Lil'wat Nation on all trails within the Category B Spirited Ground Site # 31 (Signal Hill) and ensure proper assessments are carried out as defined in the LUPA⁵
- The Village of Pemberton One Mile Lake Park Master Plan recognizes the desire for one or two additional green trails and other dedicated hiking trails, but prohibits the addition of unlimited,

⁴ Land Use Planning Agreement between Lil'wat Nation and the Province of BC, pg 11,

⁵ Land Use Planning Agreement between Lil'wat Nation and the Province of BC, pg H-8

unauthorized trail development to preserve the wilderness experience and protect sensitive habitat.

- Uphill of Tour de Soo has cultural and environmental values that may be impacted by trail development and use.

Recommendations and Priorities:

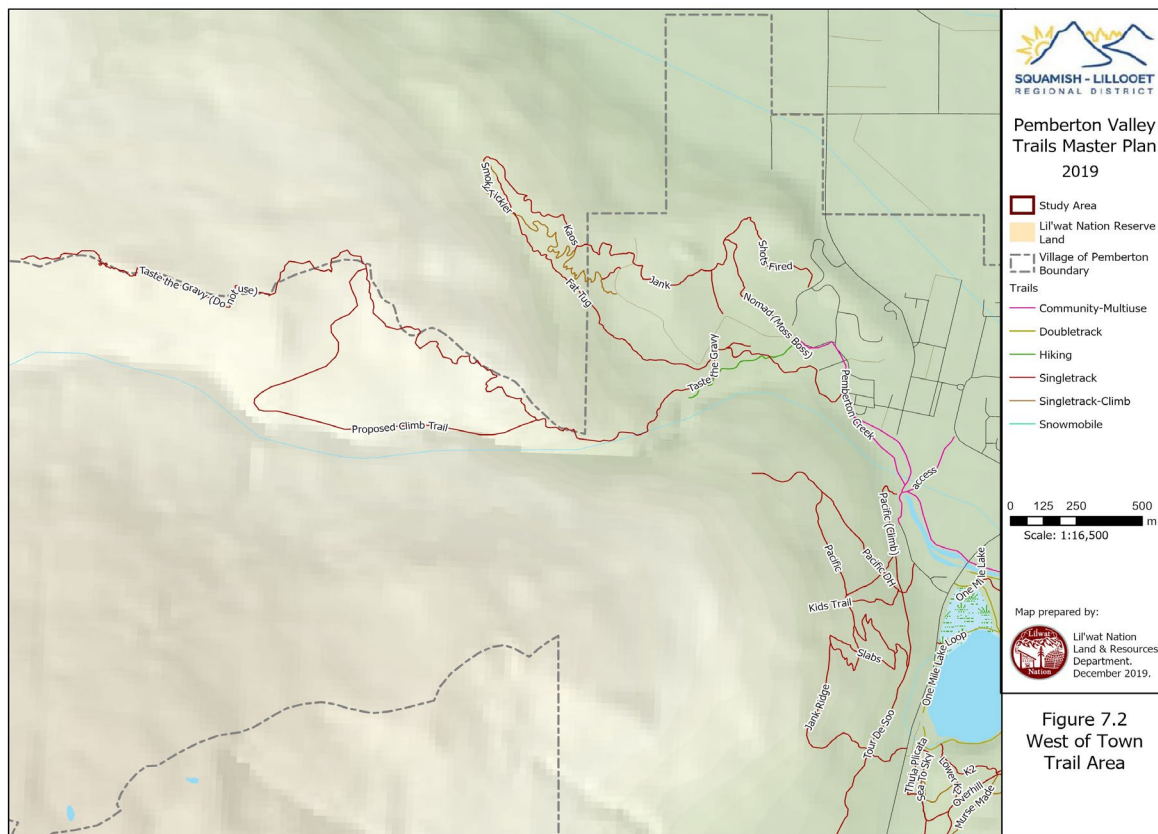
General

- Lil'wat Nation must be consulted on trail re-routing and/or major maintenance projects on all existing trails in the Spirited Ground area;
- Village of Pemberton must be consulted on all trail building/enhancements in the One Mile Lake Park;
- Install signage on downhill mountain bike trails to mitigate potential conflict with other trail users;
- Create hiking loops through area by building links between existing trails rather than entirely new trails.

Specific

- Create a new loop trail along One Mile Creek near the Pemberton Valley Lodge and across from the Peaks that would be family friendly and close to town;
- Create a more sustainable, rideable trail above Pickle Surprise that follows the contours gently down to One Mile Lake;
- Revamp Lower K2 to reduce erosion;
- Explore opportunities to build a loop trail at the end of the Tour de Soo horse trail. This will require close consultation with the Lil'wat Nation to ensure the alignment does not impact cultural and environmental values uphill of the existing Tour de Soo trail;
- Enhance the kids' trail at the southern end of One Mile Lake (Thuja Plicata) by linking nearby existing trails to create a green-level loop trail;
- Priority trails, as collected from the public survey and Pemberton Community meeting attendees, are Pioneer, Fizzy Pop, Brake-Away, Dog Beach, Murse Made, Newsflash, and Piece of Cake;
- Explore opportunities for alternate routes from the One Mile Lake Dog Beach to the mountain bike trails on Signal Hill to alleviate user conflict on the One Mile Lake Loop.

7.2 UPPER BENCHLANDS TRAIL AREA



This area is accessed through the Upper Benchlands, an established residential neighborhood, and also contains lands that are slated for additional residential development in the future. The popular Fat Tug mountain bike trail and Pemberton Creek Waterfall hiking trail are in this area. Portions of the Fat Tug trail are within the area identified in the 2007 Pemberton Benchlands Neighbourhood Concept Plan for development and re-routing may be required as development moves forward.

Opportunities:

- The PVTA has an opportunity to work with local government and the private land developer to legally establish trails and trail access throughout the land development process.

Constraints:

- A significant portion of the existing trails in this area pass through private lands and Lil'wat Option Lands. Continued use of these trails will be at the discretion of the future property owner.

Recommendations and Priorities:

- Of the trails not authorized under FRPA, Kaos and Jank Ridge were noted as priorities by trail users who provided responses at the community meeting(s) and survey.
- Trail users who provided responses at the community meeting(s) and survey identified a need for additional staging facilities near the bottom of Fat Tug or in the vicinity of the Pemberton Creek trail. However, the area is primarily residential and space for development is limited.

7.3 MACKENZIE BASIN TRAIL AREA



<p>Pemberton Valley Trails Master Plan 2019</p>	<p> Study Area</p> <p> Lil'wat Nation Reserve Land</p> <p> Village of Pemberton Boundary</p>	<p>Trails</p> <p> Community-Multiuse</p> <p> Doubletrack</p> <p> Hiking</p> <p> Singletrack</p> <p> Singletrack-Climb</p> <p> Snowmobile</p>	<p>0 250 500 1,000 m</p> <p>Scale: 1:30,000</p> <p>Map prepared by:</p> <p>Lil'wat Nation Land and Resources Department. December 2019.</p>	<p>Figure 7.3 Mackenzie Basin Trail Area</p>
	<p>Map prepared by: Lil'wat Nation Land and Resources Department. December 2019.</p>			

From downtown Pemberton, access to this trail area is cut off physically by the Lillooet River and legally by the railroad. Access to the area via the CN Rail bridge is an ongoing challenge for trail users, government and CN Rail. The area can be legally accessed from Pemberton Farm Road East.

The Mackenzie Basin trail area consists of a broad south facing slope across the Lillooet River which is a traditional deer winter range. This area sees recreational use from a variety of users, including mountain biking, trail running, hiking, motorized use, hunting, and bird watching. Two of the main paragliding launch points in Pemberton are located in this trail area and are accessed by the Mackenzie FSR. The launch sites are shown on the map with the majority of use on the upper site.

Two Spirited Ground Areas occur within this area; Category “A” (Smoke-a-Butt Trail #23) and Category “B” (Ivey Lake West # 24). The Category “A” area has specific direction that the Province of BC has outlined in the LUPA that addresses the conservation of this important cultural area⁶. A third Spirited Ground area (Mackenzie Basin # 22) is located on the north side of the Lillooet River across from the confluence of the Ryan River and an old access road leads into this area from the Mackenzie Basin Trail Area.

Opportunities:

- Lil’wat Nation and the Province of BC to work collaboratively to mitigate or reduce impacts from bike trails and ensure that the integrity of the Category A site (#23) is protected;
- Explore opportunities for interpretive signage, education and awareness of cultural site through Smoke-a-butt Trail;
- Explore options for better, safe and legal access to this trail area.

Constraints:

- Access from the Village core is a concern, with the illegal crossing of the CN Rail bridge;
- Smoke-a-Butt trail (aka Teepee trail) passes through a culturally significant site which needs to be protected;
- The federally listed Sharp-tailed Snake, and the Rubber Boa, which is a species of concern, have been found at the lower elevations of the Mackenzie Basin from Moby Dick to the Wetlands Trail. All existing trails and trail use must adhere to the governing federal and provincial legislation.
- The upper portion of this trail network sees seasonal hunting usage, which may conflict with other trail uses;

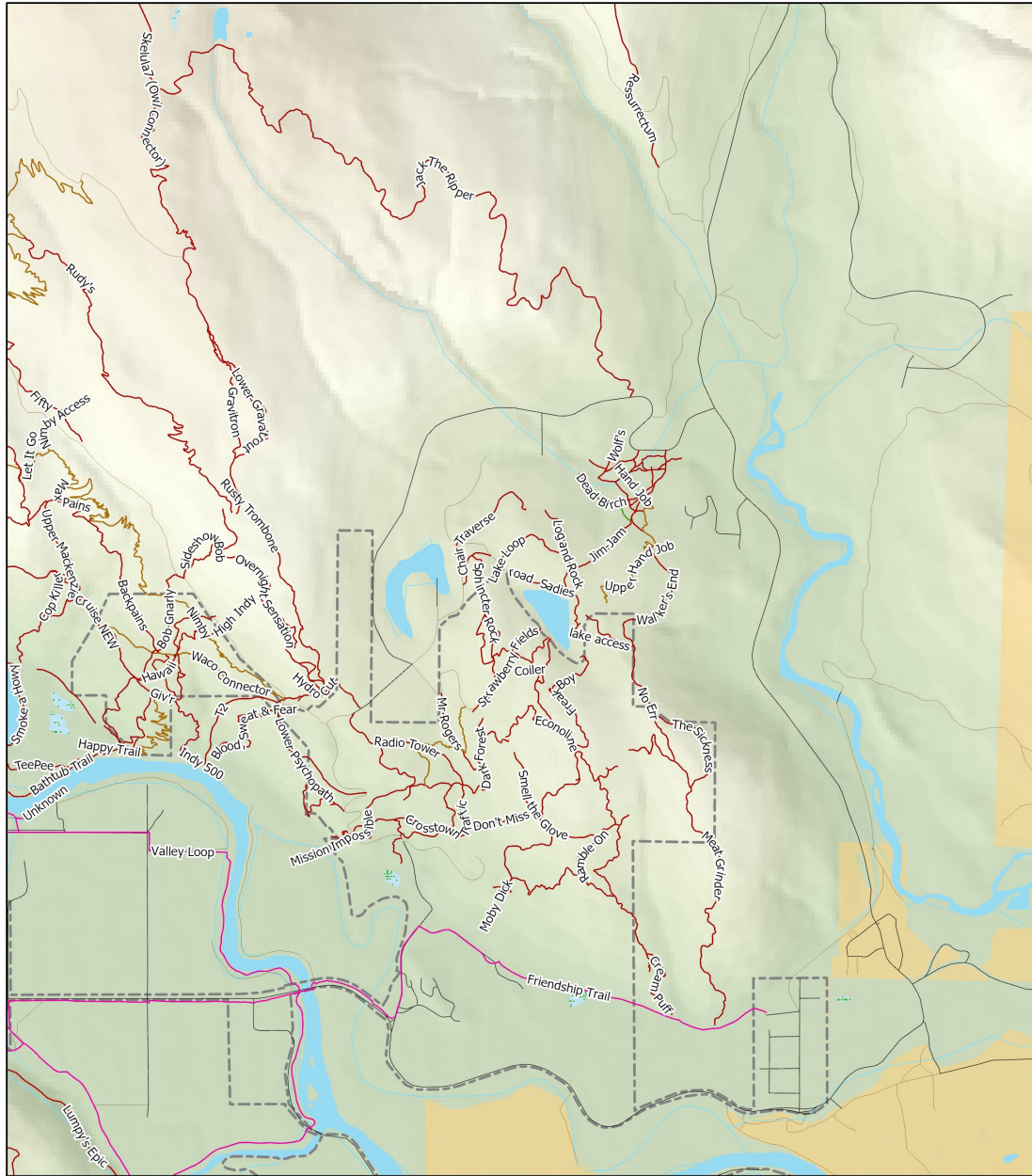
⁶ LUPA, pg. H-7


- Risk of losing a portion of the trail network due to development of the Lil'wat Nation option lands and undeveloped private lands further north.

Recommendations and Priorities

- Implementation of the Action Plan outlined in the Ském'em Riverside Wetlands Community Park Management Plan;
- To protect the cultural site adjacent to Smoke-a-Butt Trail, it is recommended that the trail be monitored regularly for impacts. It is also recommended that a sign be installed to notify the public that this is an archaeologically sensitive area and no construction or improvements to the trail should occur without prior consultation with the SLRD and the Lil'wat Nation;
- Ongoing monitoring is needed to ensure there is no negative impact to registered archaeological sites in this area and no unauthorized trails are built;
- Voluntary Seasonal closure (December - February) for the upper Mackenzie Basin area to preserve deer winter range. Trails above the Waco Connector trail would be foot traffic only for this period;
- Install new signs at key locations where needed, and update existing signage, making all trail users aware of hunting in the area and voluntary closures as noted above;
- Explore opportunities for legal access to this trail area directly from downtown Pemberton. Continue discussions with CN Rail regarding the existing rail bridge, especially now that use of this line is sporadic;
- Work towards a collector trail above valley floor, from the Mackenzie FSR Bailey Bridge to the Wetlands to get trail users away from CN Rail;
- Work with RSTBC to authorize the following trails, in order of priority as determined by trail users who provided responses at the community meeting(s) and survey: Happy Trail-Waco Connector-Nimby, Hawaii, Back Pains, Rusty Trombone, Bob Gnarly, Live Like Lisa, and Middle Earth;
- Improve staging (signage, parking, and/or washrooms) at the bottom of Happy Trail, and along the Mackenzie FSR at the top of Waco Connector and Upper Mackenzie Cruise, and Urdal Road "Naylor Way" Trail;
- Create a new "blue category" descent trail from the bottom of Rudy's as an alternative to Overnight Sensation and another blue trail west of Blood, Sweat and Fear. This will help provide more blue descent trails in the area which are lacking;
- Re-route Gravitrout through the logging slash.

7.4 MOSQUITO LAKE TRAIL AREA



 <p>Pemberton Valley Trails Master Plan 2019</p>	<p>Study Area</p> <p>Lil'wat Nation Reserve Land</p> <p>Village of Pemberton Boundary</p> <p>Paved Road</p> <p>Dirt/Gravel Road</p>	<p>Trails</p> <p>Community-Multiuse</p> <p>Doubletrack</p> <p>Hiking</p> <p>Singletrack</p> <p>Singletrack-Climb</p> <p>Snowmobile</p>	<p>0 250 500 1,000 m</p> <p>Scale: 1:30,000</p> <p>Map prepared by:</p>  <p>Lil'wat Nation Land and Resources Department, December 2019.</p>	<p>Figure 7.4 Mosquito Lake Trail Area</p>
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The Mosquito Lake area consists of rural residential properties, two lakes and old forestry operations, with old logging roads throughout. The south facing slopes contain a mix of private lands that are in various stages of development. A category “A” Spirited Ground Area (Mosquito Lake #25) and two category “B” Spirited Ground Areas (Hi7hi # 27 and Walkers Bride # 26) occur in this area. Access is from Pemberton Farm Road East to the Mackenzie FSR in the south and also via Reid Road, through the Ivey Lake subdivision to the north. The area has a large concentration of mountain biking trails that are also popular for trail running and some equestrian use. The old forestry roads are increasingly popular with motorized users (motocross/dirt bikes). (Fig. 7.4)

Opportunities:

- Develop a protective fence and interpretive signage at the petroglyph site located on the existing Cream Puff trail (spirited ground site #27) to highlight and protect this cultural site.

Constraints:

- Several cultural “hot spots” and three Spirited Ground Areas occur in this area, as shown in Fig. 7.9. Field reconnaissance of the trails and approval from Lil’wat Nation and private land owners is required before trail maintenance work can occur within the “hot spot” and Spirited Ground Areas;
- A large number of these popular trails are on private land, including portions of Cream Puff, No Err, Econoline, Radio Tower, Mission Impossible, Moosejah, and others (see Fig. 6.5 Land Ownership);
- Limited mountain bike climbing trails along the south facing slope leading up to Mosquito Lake;
- Several trails exit the hill side directly onto CN Rail right of way;
- Jack the Ripper trail crosses onto private land in Ivey Lake Estates.

Recommendations and Priorities:

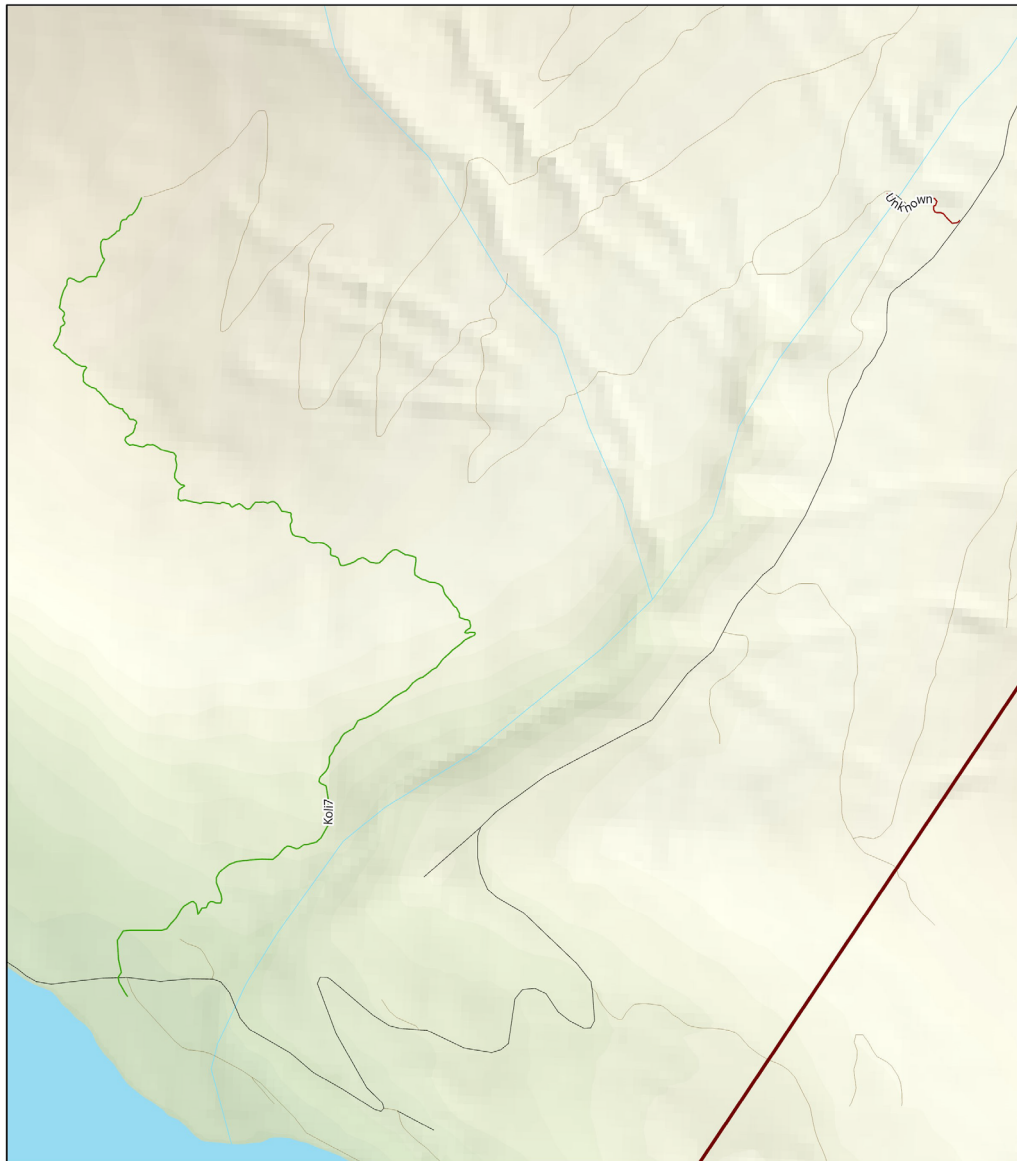
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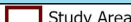



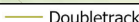

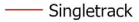
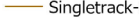
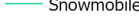


- Care must be taken to keep new trails off private land unless approved by the land owner;
- Explore the potential to create or designate equestrian-primary trails in this area;
- Crosstown Traffic, Radio Tower, Meat Grinder, No Err, and Dark Forest were noted as priorities in the survey results and Pemberton community meeting. These all cross through private property so permissions from property owners, as well as approval from Lil’wat Nation, would be required in addition to section 57/56 permit from RSTBC to authorize or retain them.

Specific:

- Protection of the petroglyph site on Cream Puff Trail is a high priority. Further, work with private landowners should be undertaken to erect a more permanent barrier along Cream Puff and realign the Cream Puff Trail around the archaeological site. Signage should be installed at the site and may include education and awareness of the cultural site;
- Enhanced parking, signage, and washroom facilities were identified as a priority for the parking area at the base of the Mackenzie Forest Service Road. Improvements could also be made to the Mosquito Lake Parking Lot, though these are regarded as a lesser priority by trail users who provided responses at the community meetings and survey;
- Create a new “blue category” climbing trail from Cream Puff area to Mosquito Lake using the old Fotsch road;
- Link Cream Puff to Meat Grinder to eliminate trail users from exiting on to the CN Rail ROW;
- Create a new easy, bi-directional multi use trail from top of Wild Potato to the Mosquito Lake parking area;
- Explore options to establish a legal ROW across private property in Ivey Lake at the Jack the Ripper trail exit

7.5 WILD BILL TRAIL AREA



 <p>Pemberton Valley Trails Master Plan 2019</p>	 Study Area  Paved Road  Dirt/Gravel Road Trails  Community-Multiuse	 Doubletrack  Hiking  Singletrack  Singletrack-Climb  Snowmobile	 <p>Scale: 1:15,000</p> <p>Map prepared by:  Lil'wat Nation Land and Resources Department, December 2019.</p>	<p>Figure 7.5 Wild Bill Trail Area</p>
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This trail area is located at the head of Lillooet Lake, just beyond the Mount Currie Indian Reserve # 3 and near the traditional fish camp of the Lil'wat Nation. A Category "B" Spirited Ground Area (Lillooet Lake Fish Camp # 40) and Lil'wat Option lands are located along Highway 99. One downhill mountain bike trail is accessed from logging roads several kilometers up Highway 99 (Duffey Lake Road). This trail (Wild Bill and X-Files) forms part of a traditional trail leading to the alpine that is used by the Lil'wat Nation.

Opportunities:

- Designating the trail as hiking only will help to preserve the Lil'wat traditional uses in the area.

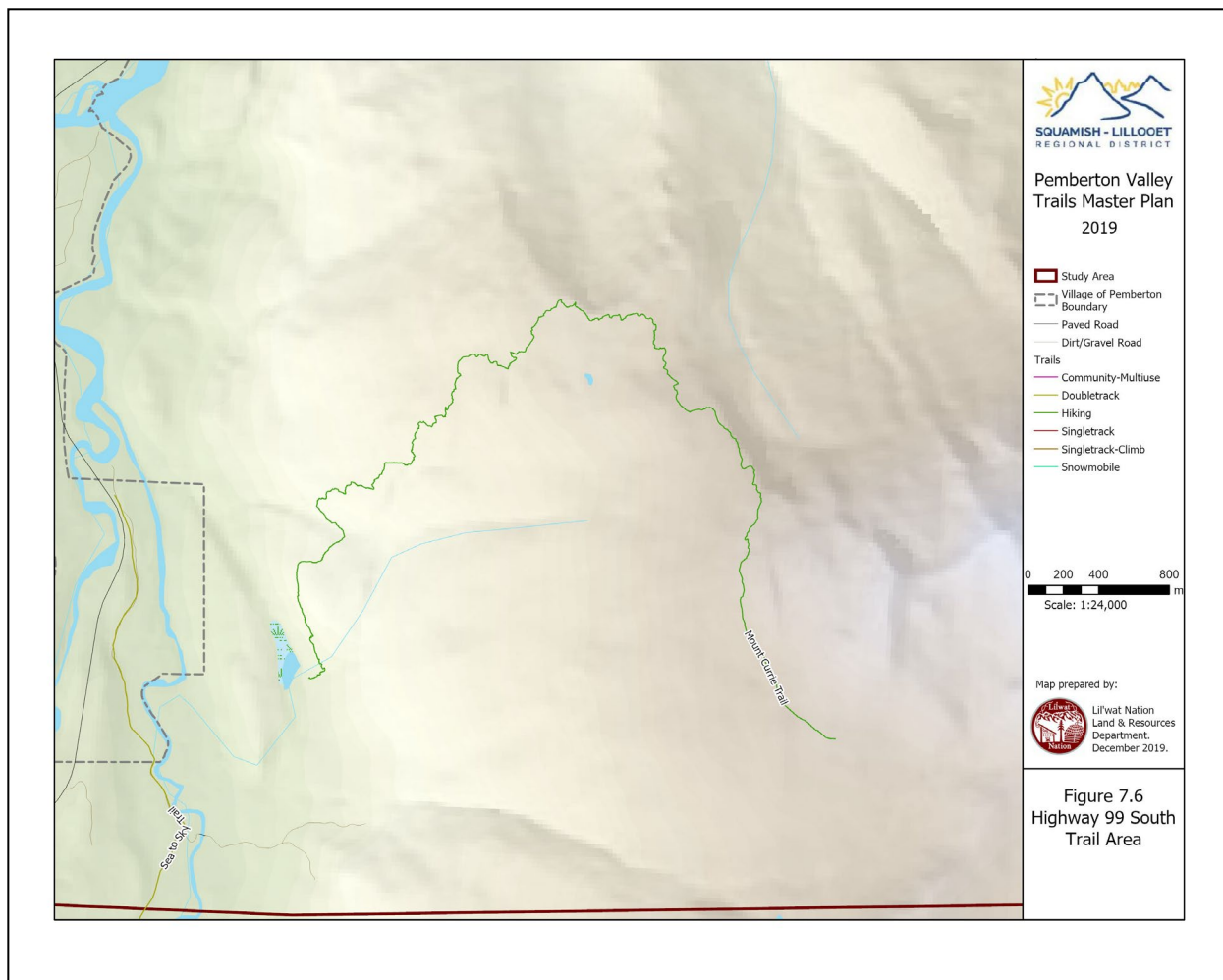
Constraints:

- Wild Bill mountain bike trail conflicts with traditional use ;
- The federally and provincially listed Spotted Owl has been found in the vicinity of Lillooet Lake. To adhere to federal and provincial species at-risk legislation, any trail construction or maintenance should be conducted in coordination with a wildlife professional.

Recommendations and Priorities:

- Decommission the upper access to Wild Bill and X-Files to discourage mountain biking. These trails should be maintained for hiking only;
- Install signage at the top of Wild Bill and the access point on Highway 99 indicating that the trail is closed for mountain biking and is only open to hiking; Consider seeking funding to add a gate to support this objective;
- Consider a sign closing the trail to domestic animals (dogs) due to potential for wildlife disturbance.

7.6 HIGHWAY 99 SOUTH TRAIL AREA



This area is the main transportation corridor between Whistler and Pemberton and contains Highway 99, CN Rail and major BC Hydro transmission lines. The established multi-use Sea to Sky Trail parallels the highway and hydro ROW from the south at Shadow Lake to the north by Rutherford Creek. The newly established Mount Currie Trail is a hiking only trail leading east uphill to the alpine from logging roads off of the Green River. A Category “B” Spirited Ground Area exists in the high alpine approximately 1.5 km to the north of the Mount Currie Trail. Just south of the Study Area is the Shadow Lake Interpretive Forest and hiking trails.

Opportunities:

- Install interpretative signs along Sea to Sky Trail to provide education and awareness of the Lil’wat Nation;

- Explore options to revitalize the Shadow Lake Interpretive Site (even though outside the Study Area). An information kiosk about the Li'wat Nation exists overlooking Shadow Lake but the trails in the area have been neglected.

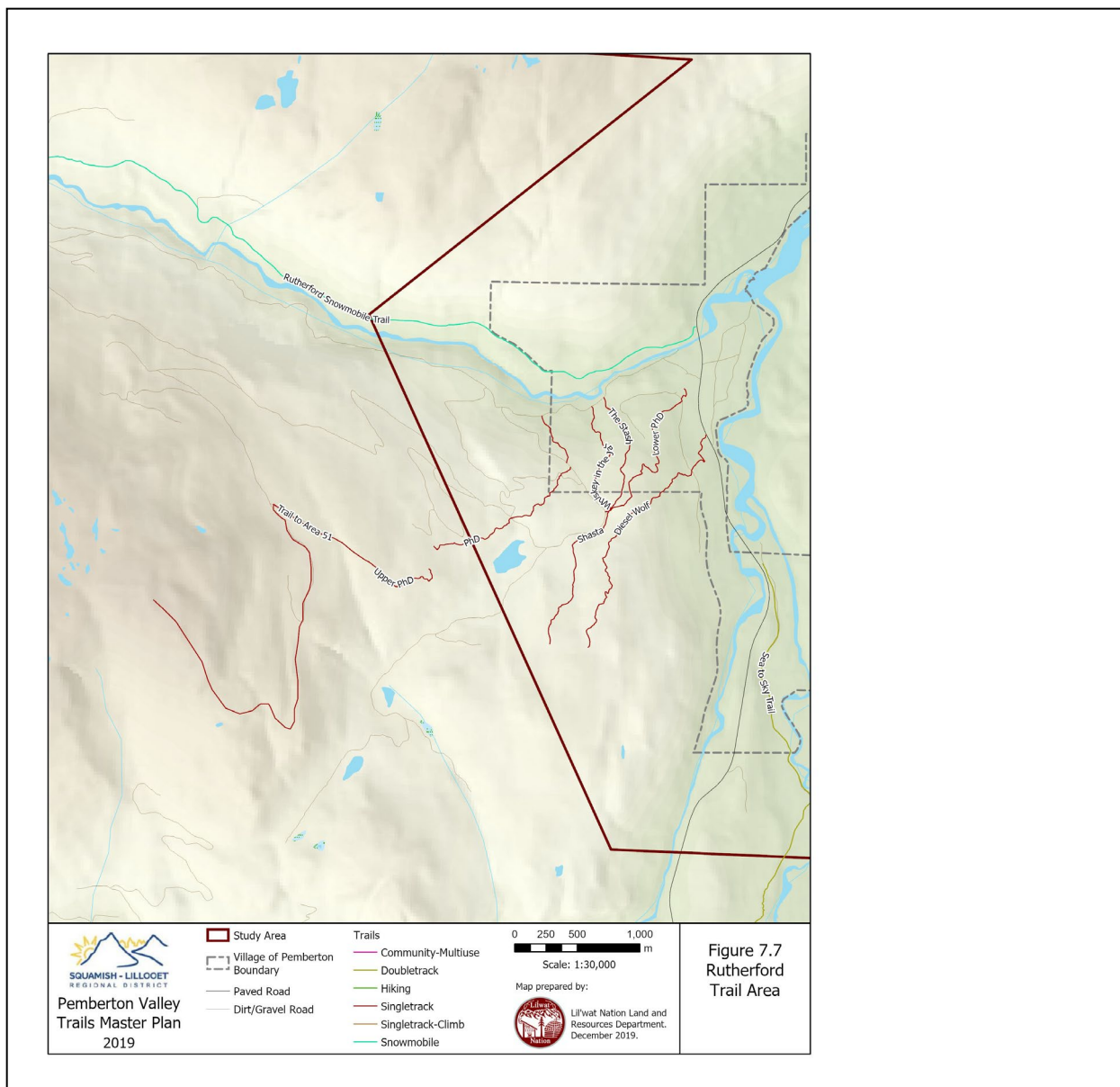
Constraints:

None noted **Recommendations and Priorities:**

- Install signage along the Mount Currie Trail to indicate that the area only offers backcountry wilderness hiking experiences only, and may not be suitable for all trail users.

7.7 RUTHERFORD TRAIL AREA

Industrial activity including a hydro power plant, soil composting, and active forestry activities occur in this area. Trails for mountain biking and trials bikes access the area from Highway 99 onto forestry roads on



both sides of Rutherford Creek. Lil'wat Nation gather food and material resources in this area as well. A Lil'wat cultural "hot spot" has been noted along Highway 99 and is an unconfirmed archaeological site. There is an authorized recreation trail for snowmobile use along the Rutherford FSR which is accessed from the Rutherford Creek Power Project.

Opportunities

- As it is separated from residential areas, and adjacent to the winter snowmobile use, the Rutherford Trail area has benefits for dirt biking. The Pemberton Dirt Bike Association has applied to the Province for a dirt bike trail above the current mountain biking trails.

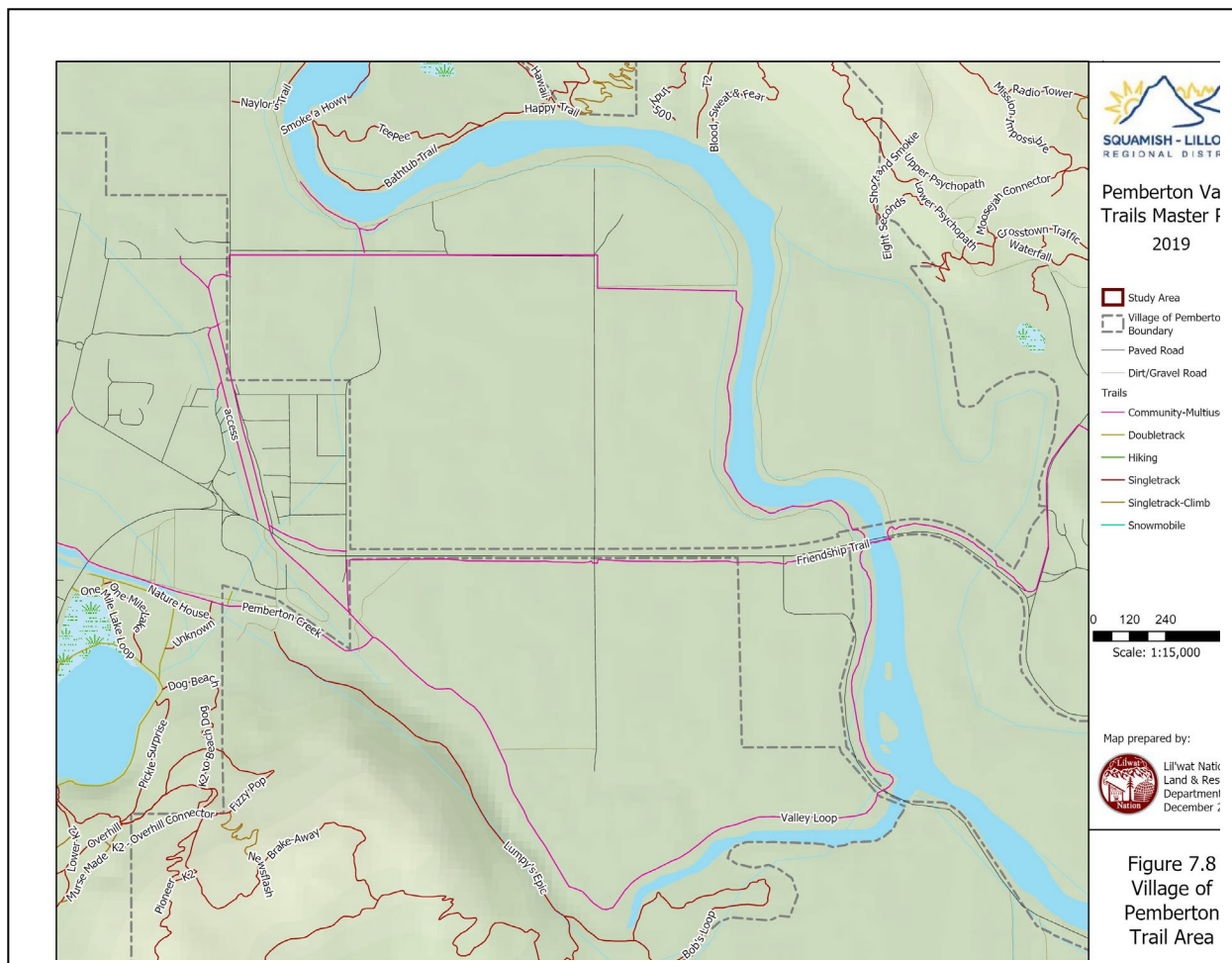
Constraints

- Active forestry operations take place in this area;
- A portion of the Rutherford area is within the Village of Pemberton boundaries; authorizations may be required.
- There is a "hot spot" noted adjacent to Highway 99, and may contain an archeological site as shown in Fig. 7.9.

Recommendations and Priorities

- The PVTA, VOP and the Lil'wat Nation should maintain an ongoing dialogue regarding timber harvesting and trail building to mitigate possible conflicts;
- Any valley bottom trail proposed in this area, such as Sea to Sky Trail, will need to be reviewed by the Lil'wat Nation to ensure there is no impact to the possible archaeological site or other Lil'wat Nation interests and by VOP;
- PhD Trail needs some re-routing and improvements, especially at the bottom due to industrial activity in the area.

7.8 VALLEY FLOOR TRAILS



The Village of Pemberton contains a network of walking and running trails that link to One Mile Lake, the Valley Loop Trail and connector trails.

Opportunities:

- The Village has recently adopted a Cycling Network Plan (CNP) which establishes a long term vision for cycling in the Village to make cycling safe and convenient for all.
- Opportunities exist to develop bike paths and greenways to connect community hubs, destinations, and trail areas, as expressed in the CNP;

- The flat valley bottom terrain may support the development of additional easy walking or multi-use trails.
- Public parking lots and public washrooms exist in the Downtown Core.

Constraints:

- Much of the land in this area is privately owned with several trails crossing private land. This may hinder development of new trails.

Recommendations and Priorities

- As has been expressed in other planning documents, the completion of the Friendship Trail is a very high priority for residents of both Pemberton and Mt. Currie;
- The Lillooet River Lodge Trail il(end of Pemberton Farm Rd.), the related connection along the Lillooet River to Naylor's Trail, and Naylor's Trail itself, were noted as a very popular and important trail for walking and dog walking. Opportunities to work with private land owners and formally integrate this linkage into the trails network should be pursued;
- Where possible, creating spatial separation of trail users and vehicle traffic should be pursued. This can include concrete barriers or planter boxes, or the development of commuter trails distinct from paved roadways;
- Reach out to private landowners for agreements to connect to trails on dikes across private land.

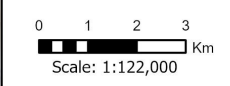
7.9 HOT SPOTS

The Hot Spots Map is a working document which may be updated from time to time. Hot Spots are a general location of important cultural sites which are provided from Lil'wat Nation to identify areas where new trails are not appropriate, and maintenance of existing trails is done with consultation with Lil'Wat Nation. See Future Maintenance

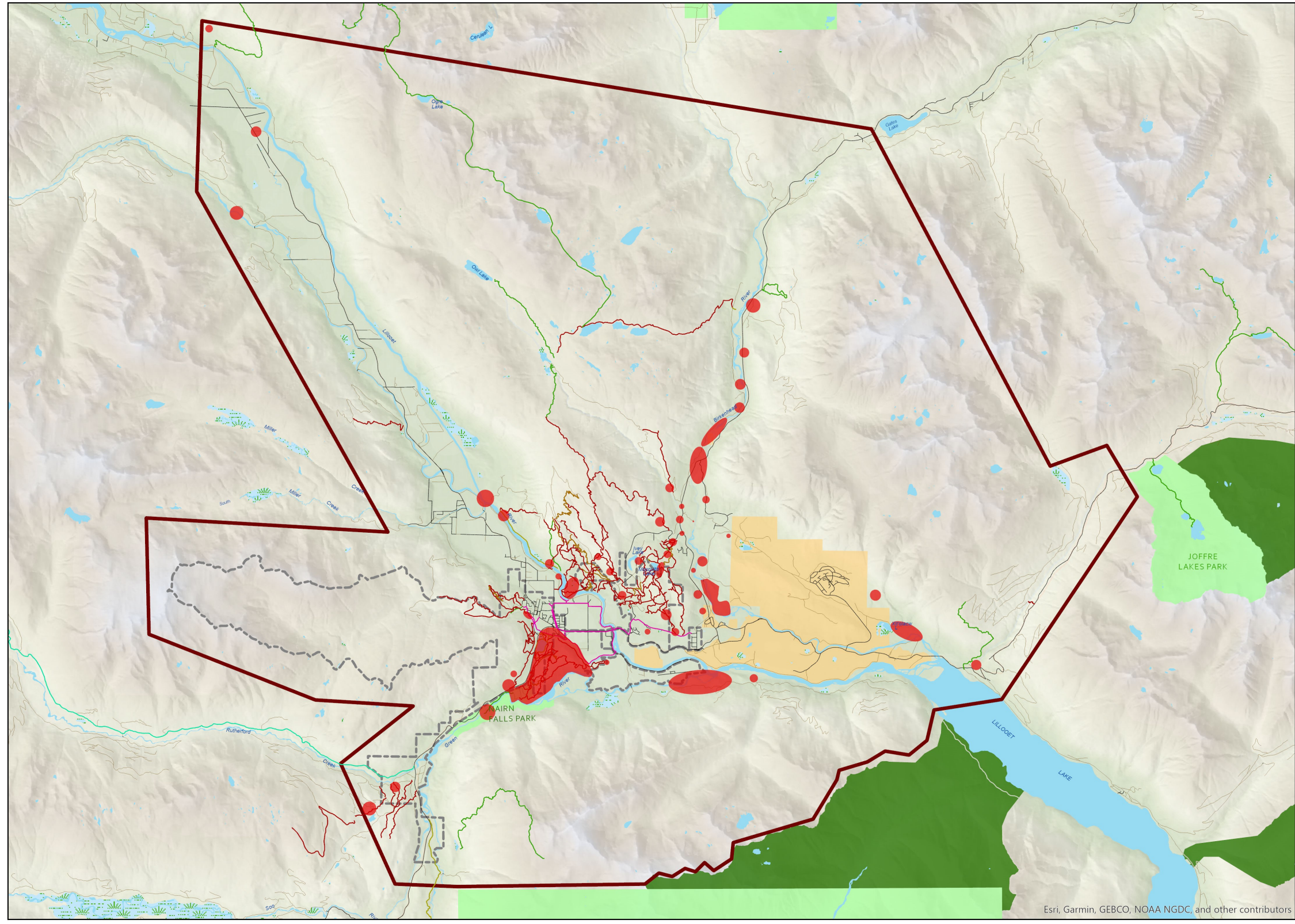


Pemberton Valley Trails Master Plan 2020

- Hot Spots
- Study Area
- Lil'wat Nation Reserve Land
- Village of Pemberton Boundary
- Provincial Park
- Conservancy
- Paved Road
- Dirt/Gravel Road
- Trails
 - Community-Multiuse
 - Doubletrack
 - Hiking
 - Singletrack
 - Singletrack-Climb
 - Snowmobile



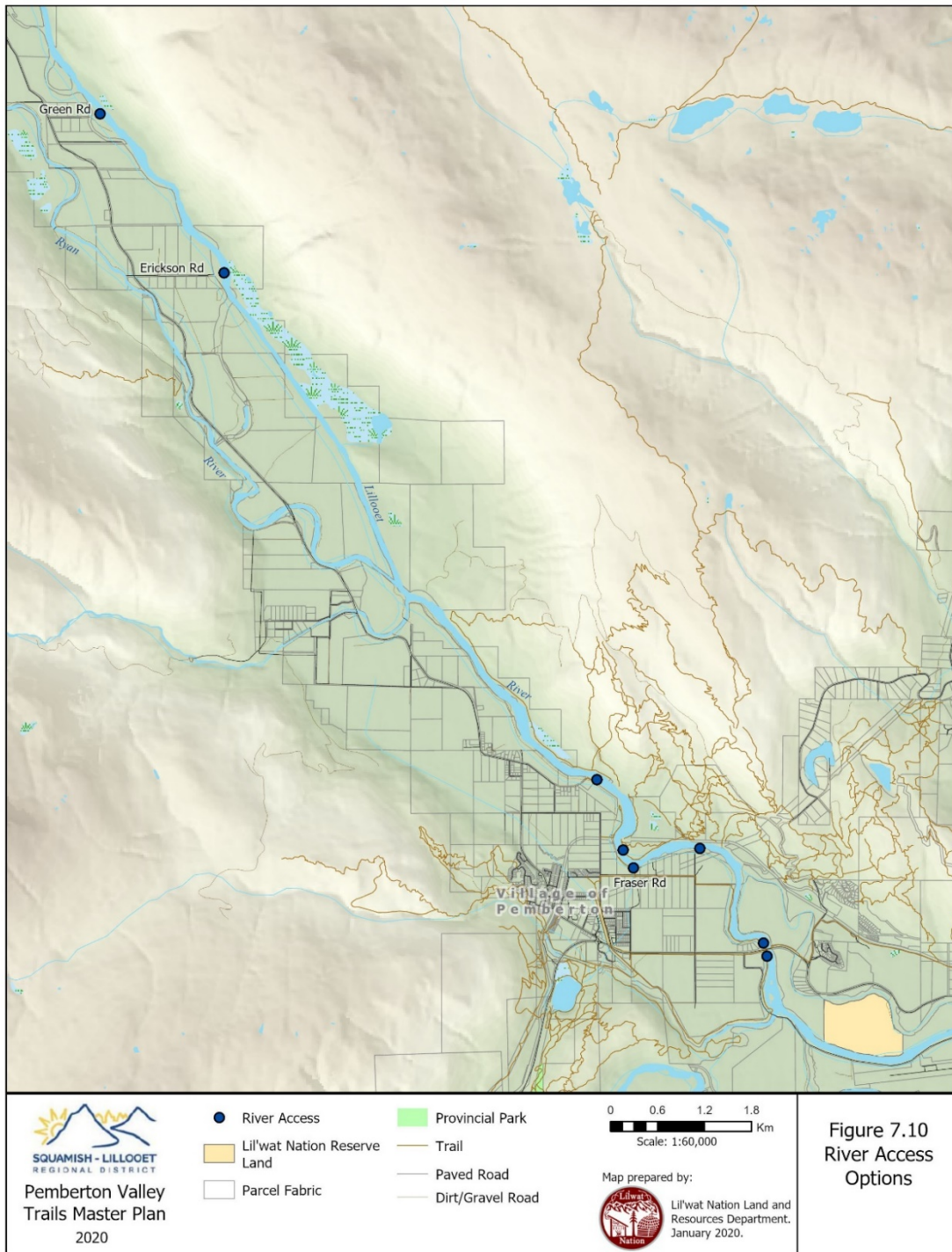
Map prepared by:
 Lil'wat Nation Land and Resources Department, January 2020.



Esri, Garmin, GEBCO, NOAA NGDC, and other contributors

Figure 7.9 Hot Spots

7.10 WATER ACCESS



The valley is fortunate to feature the Lillooet, Green and Birkenhead Rivers. These waterways provide locals with an important source of food, recreation, and are critical to the health of the surrounding environment. The current trail network includes a series of

trails that offer access to and along the riverbanks, and are popular with local walkers, hikers, and recreationalists. It is important that these be maintained as the trail network evolves. Trails that provide access to the rivers are shown on Fig. 7.10

The network of dikes is built and maintained by the Pemberton Valley Dyking District (PVDD), an autonomous local government body⁷. Most of the dikes in the Valley have been constructed on private property, and neither the PVDD nor the SLRD have the authority to grant trail users access to these dikes. Trails on dikes that reside on Crown land are open to public use so long as use does not damage the dikes.

Recommendations and Priorities:

- Engage the relevant private landowners to secure legal access to and along the waterways. The SLRD has the ability to acquire statutory rights of way for public access with property owners who are in favour of access across their properties;
- Water access at the end of Clover Road (MoTI road allowance) should be pursued and a trail/fencing created

⁷ Map available at: <https://www.pvdd.ca/files/PVDDJurisdictionalDetailedMap.pdf>

8 GENERAL PRIORITIES AND RECOMMENDATIONS

Through the gathering of background research and community engagement the following priorities and recommendations have been created.

The following are a list of general priorities and recommendations.

8.1 AUTHORIZATION OF TRAILS

A major objective of this Plan is to ensure that new trails developed on Crown land are authorized by RSTBC and approved by Lil'wat Nation. Authorization of existing trails is also a top priority and may result in the decommissioning or closure of some trails.

- Compile a list of existing priority trails for submission to Lil'wat Nation/RSTBC for s. 56 establishment under the Forest Range and Practices Act (FRPA);
- Ensure that proposed additions to the existing trail network cater to a variety of trail user types, working toward a system that provides balanced recreation opportunities, including the growing motorized recreation segment;
- Review trail applications to ensure there is appropriate spatial separation between user groups;
- Follow Lil'wat Nation policy and procedures for management of cultural and archaeological sites within existing or proposed new trail developments, and work with Lil'wat Nation on specific mitigation needed such as defining appropriate buffers and rerouting procedures. Ensure trail builders are aware to contact the SLRD and Lil'wat Nation if any archaeological features are discovered.

8.2 FUTURE MAINTENANCE

Trail Maintenance and upkeep should have priority over new trail development.

- The Lil'wat Nation has created and will maintain a map that identifies cultural “hot spots” within the existing trail network that will establish where maintenance activities (specifically, raking, clipping, drainage and addressing safety concerns) will require consultation. This map will be an internal working document for reference by the Lil'wat Nation, the SLRD, and the PVTA;
- Raking, clipping, drainage and safety related maintenance should be limited to the trail surface and a buffer of 5 m from the trail centerline;

- A significant re-route (i.e. greater than 20 metres) will require review by Lil'wat Nation and the SLRD;
- Explore opportunities to integrate recreational and industrial use, such as creating trails in areas that have been logged, with consideration of wildlife impacts and forest regeneration;
- Clarify ownership and access rights on dikes within the study area and install signage as needed.

8.3 FUTURE TRAIL DEVELOPMENT

Any future trail development will be authorized under a Section 57 Application and will have been referred to Lil'wat Nation, local government and other relevant agencies, as well as private landowners (where applicable).

- New trail developments should focus on beginner and intermediate mountain bike trails where possible to cater to a larger range of trail users;
- When an authorized trail is removed from the network, a new trail with similar characteristics should be planned elsewhere in the network;
- Prioritize and develop staging points as identified in the Trails Master Plan, where possible.

8.4 COMMUNITY OUTREACH, EDUCATION, AND COMMUNICATION

- Develop and implement a strategy to inform the community about the issues and concerns regarding unauthorized trail building;
- The SLRD, Lil'wat Nation, Village of Pemberton, PVTA, and Recreation Sites and Trails BC should maintain an ongoing and open dialogue, working together and forming partnerships where possible; Create Plan Monitoring Committee;
- Communication will be aided by the creation of a Plan Monitoring Committee;
- Find opportunities to increase trail users' awareness of Lil'wat Nation land, history, and traditional use (e.g. signage, Lil'wat trail monitors with uniforms);
- Explore opportunities for Lil'wat Nation Lands and Resources Department to provide cultural education and awareness training sessions for trail builders and trail

maintenance crews. This will assist them in identifying cultural sites and mitigating impacts;

- Create a mechanism for trail users to report trail issues and maintenance requirements for all trail types. A system exists on Trailforks and on Facebook at “Bike Pemberton” that could be used by PVTA/SLRD rather than the development of a new system that may not be as popular.

8.5 SIGNAGE

- Install trail markers or maps at high-use trailheads, intersections and staging areas, with proper authorization. Where possible, these should reflect other signage and wayfinding objectives listed below;
- To support the objective of increasing awareness of Lil’wat Nation land, history, and traditional use, incorporate Lil’wat Nation information on signage and trailhead kiosks. Approval for the content of these information signs will be via the Lil’wat Cultural Heritage Language Authority;
- Install signs on downhill mountain bike trails where needed to ensure equestrian and trials bike users are aware of safety hazard and potential conflicts;
- Install signage where needed outlining seasonal hunting use and voluntary closure areas.
- Develop a difficulty rating system that can be applied to multi-use trails and included on signage;
- All stakeholders should follow the Recreational Sites and Trails BC signage and wayfinding guidelines;
- Celebrate local character with a comprehensive, visually appealing, and approachable signage and wayfinding program that augments the required Recreation Sites and Trails BC signage;
- Include information about the Forest Range and Practices Act at key trailhead and staging area kiosks.

9 MANAGEMENT STRATEGIES

The following section of the Trails Master Plan covers management strategies that can address the recommendations listed in the General Priorities and Recommendations listed above.

9.1 STRATEGIES TO ADDRESS UNAUTHORIZED TRAIL BUILDING

Unauthorized trail building on Crown land is of particular concern in the Pemberton Valley where a substantial number of trails have not been authorized or established through the Forest Range and Practices Act (FRPA). Going forward, it is critical that this be addressed.

Results from the community survey indicate that trail users are very supportive of increased education around the potential negative impacts of unauthorized trail building and sustainable trail building, communication and coordination among stakeholders, clarification and simplification of the FRPA Sec. 57 authorization process, enhanced support for those going through the authorization, and financial penalties.

The suggested strategy to halt unauthorized trail building is three pronged with an overarching intent to engage all trail users in the process of trail planning, development, maintenance. The foundation of this approach is a belief that engagement, inclusion, and effective communication are superior to enforcement. This does not preclude an active enforcement program, but it is believed that this is an inefficient strategy over the long-term.

The four aspects of strategy are Education and Outreach, Partnership, Monitoring, and Pre-Approval from Lil'wat Nation. These tasks should occur concurrently and are mutually supportive.

9.1.1 EDUCATION AND OUTREACH

- Where trails are closed or remain unauthorized, provide a rationale for this decision. Specifically, where trails negatively impact cultural, historical, or environmental values or sites, detail the importance of these features and the threat the trail(s) pose. Most trail users do not wish to harm or degrade the landscape, but remain unaware of the unintended consequences of trail use;
- Provide information regarding the process to legally build a trail or have an existing trail authorized. Many community members in the Pemberton Valley indicated that they were eager to engage in the authorization process, but information on this process and effective means of coordination with Provincial agencies was lacking;

- Publicize and promote authorized trails while removing unauthorized trails where possible from maps, brochures, and websites. This will work to clarify which trails are authorized, and limit the number of users on unauthorized trails. Note that popular trail database websites such as Trailforks or Strava are crowdsourced, so information can be changed by anyone using the site. It could be challenging to moderate a variety of online trail sites in order to keep unauthorized trails listed as unauthorized.

9.1.2 PARTNERSHIPS

- As is evident by the number of trails built within the Pemberton Valley, there is a strong desire to develop and enhance the trail network. Through partnerships, this desire can be focused on authorized trails and foster communication among all concerned trail users;
- Develop an adopt-a-trail program that partners individuals, groups, or organizations with the organization responsible for the development or maintenance of a trail authorized under FRPA. This would focus community resources (i.e. time, money, knowledge, etc.) on authorized trails, to ensure that these trails provide a superior user experience to unauthorized trails. This approach could be operated in conjunction with a private sponsorship fundraising program (e.g. NSMBA Trail Adoption Program).

9.1.3 MONITORING

Monitoring changes in trail use on authorized and unauthorized trails will be crucial to measuring the success of efforts to reduce the construction and use of unauthorized trails. Regardless of the scale or final form of the monitoring activities, these efforts should be applied consistently over time to allow for accurate comparison and evaluation of the approaches used to halt unauthorized trail building.

- Hire local youth (e.g. Lil'wat Trail Monitors) during peak seasons to identify which unauthorized trails are still being used, and whether unauthorized trails are being built and where. As part of their role, they could also act as part of the Education and Outreach program, offering information on the region and the trail network;
- Use trail counters to determine changes in use over time;
- Establish a mechanism to allow members of the public to report activity on unauthorized trails directly to local trail organizations in addition to Natural Resource Officers. Local organizations do not have enforcement authority, but can

be an effective group to discuss issues with the province. “Bike Pemberton” Facebook page is an effective informal trail hazard reporting mechanism, but only page members can comment. Similarly, Trailforks website provides opportunity for members of the public to comment on trail hazards and conditions;

- Actively reach out to the community of trail users on a regular basis to identify challenges and opportunities in regards to the trail network. This can be achieved through surveys (online or print) or open houses.

9.1.4 LIL’WAT NATION PRE-APPROVAL PROCESS

The current FRPA s. 57 application process has caused significant frustration for trail builders and organizations. The time delay between a s. 57 application and the province beginning its referral process is lengthy, sometimes longer than one year. This report recommends that in order to create efficiency, Lil’wat approval is sought first, before submitting the s. 57 to the province. If RSTBC has Lil’wat approval in hand, it may speed up the processing of new applications at RSTBC.

The goal of this proposed pre-application process is to maintain and develop trails that respect Lil’wat Nation title and rights, and to expedite the FRPA application process by proactively addressing the concerns and requirements of Lil’wat Nation.

The Pre-application Process is intended to be clear and simple. A trail proponent would forward a brief information package to Lil’wat Nation Land and Resources Department either via its Community Knowledge Keeper web-based referral system, or via email to Lil’wat Land and Resources Department.

The information package should include a detailed map of the proposed location of the trail (digital file is preferred) and an introduction letter describing:

- Location of Trail
- Type of trail
- Rationale for trail
- Expected use of trail
- How will trail fit into the existing network

Lil’wat Lands and Resources Department will review the proposal in accordance with its Consultation Policy. If an approval is received from Lil’wat Nation, the proponent can move ahead with the s. 57 approval process.

Supplemental to this process, it is recommended that the SLRD and Village of Pemberton, as part of their existing trails funding program, provide support to trail builders, either

administrative or financial, to help with the process of researching and writing the application.

9.2 USER CONFLICT REDUCTION STRATEGIES

Many of the existing trails support a variety of use. Effective signage and trail etiquette education will help to ensure all trail users have an enjoyable experience. Design alterations to existing trails can be explored where required to limit user conflict. For example, this may include a widening of the trail to provide a pull-out and allow different user groups to safely pass one another.

9.2.1 MOTORIZED USE

A special concern of the Pemberton Valley community identified during the planning process was the future of motorized use on the trail network.

For the purposes of this discussion, trials motorcycles (trials bikes) will be discussed separately from other motorized recreational uses. It was found that public opinion on whether to define trials bikes as motorized use was split, with opinions on their environmental impact divided evenly. Research into the environmental impact of trials bikes is very limited, and the question as to whether trials bikes are significantly more harmful to the environment relative to other uses (e.g. equestrian, mountain biking) cannot be resolved at this time. However, there were additional concerns regarding user conflict that can be addressed.

Regardless of the vehicle used, the Forest Recreation Regulations developed under FRPA stipulate a number of conditions governing off-road vehicle use on authorized recreation sites or trails. A trail user must not operate vehicle in a manner likely to damage a structure or natural resource, endanger, injure or damage people or property, or harass, injure or kill wildlife. Further, vehicles must not exceed 20km/hour and operators and any passengers must wear a helmet.

Motorized recreation is a growing user group and consideration should be given to developing dedicated motorized trails in future planning. During the development of this Plan, the Pemberton Dirt Bike Association was established and has been working with Recreation Sites and Trails BC to find locations for dirt bike trails.

9.2.2 OFF-ROAD VEHICLES - DIRT BIKES/ATVS/UTVS

Operation of off-road vehicles on resource roads is subject to the Off-Road Vehicle Act, the Forest and Range Practices Act, and supporting regulations. It is recommended that motorized uses be restricted to existing resource roads (e.g. forest service roads). The potential to achieve high speeds with these vehicles requires long and clear sightlines to provide riders with the time to respond to other users. Further, these vehicles can have

significant environmental impact on trails that have not been constructed for motorized use.

It is also recommended that where other trails (e.g. hiking, mountain biking, etc.) exit on to these designated roads, signage be placed both on the designated road and the adjoining trail so all users can moderate their behaviour and reduce the likelihood of conflict at the intersection.

9.2.3 TRIALS BIKES

Aside from the potential environmental impact of trials bikes, potential for user conflict was highest concern among users. However, it should be noted that the occurrence of conflict has been limited to date.

To address this the potential for user conflict, it is recommended that trials bikes be limited to trails within approved motorized areas. Preferably, these trails would have clear sightlines for all users and the potential for high downhill speeds would be limited. A list of permitted trails should be developed in collaboration with the trials bike community. For these designated trails, signs should be posted at the top and bottom of the trail to notify motorized and non-motorized users that the trail is multi-use and to adjust their behaviour accordingly.

9.2.4 E-BIKES

The Province of BC issued an Electric Bicycles (e-bikes) Policy on April 24, 2019⁸ which describes the policy and procedures for the recreational use of e-bikes on Established Recreation Trails. The policy⁹ states that:

(a) All classes of e-bikes are permitted on Established Recreation Trails open to both motorized and non-motorized use,

(b) Class 1 e-bikes / MAC are permitted on Established Recreation Trails open to non-motorized use unless e-bikes are specifically prohibited.

⁸ <https://vancouver.sun.com/news/local-news/province-develops-policy-to-allow-electric-bikes-on-forestry-trails>

⁹ https://www2.gov.bc.ca/assets/gov/sports-recreation-arts-and-culture/outdoor-recreation/camping-and-hiking/rec-sites-and-trails/ebike_policy_final_04-25-2019.pdf

At this time, the SLRD and PVTA do not have an E-bike policy, however E-bike use and potential impacts are being monitored.

Complementing trail use restrictions and signage recommendations, it is recommended that stakeholders develop a Trail Use Etiquette policy to establish a common understanding of appropriate trail use and behaviour, and foster positive community norms with regards to trail use. The RESPECT model developed by the Whistler Off-Road Cycling Association provides a good example of this, and could be adapted to suit the needs of the Pemberton Valley.

9.3 FUNDING AND RESOURCE STRATEGIES

The Pemberton Valley is currently supported by a range of organizations and individual community members that collectively monitor and maintain trail conditions, ensuring a positive trail user experience. Financially, the SLRD and Village of Pemberton fund the Pemberton Valley Recreational Trails Service, which provides an annual contribution to the PVTA. This is supplemented by PVTA membership fees from trail users. Financial support is complemented by in-kind contributions from members of local organizations, such as the PVTA and PORCA, as well as in-kind contributions from unaffiliated members of the public.

Critical to the long-term success of the Pemberton Valley trails system is stable, secure, long-term funding for trail maintenance and upgrades. The current funding from the SLRD and Village of Pemberton is crucial in this regard.

To date, the most prominent form of trail funding is through one-time grants offered by a range of organizations. While these can be sizeable, they are often reserved for capital projects and exclude ongoing operations from consideration. Further, they offer no guarantee of future funding, undermining efforts to carry out more financially intensive projects.

In recent years, trails organizations and funders have advocated for a partnership model to achieve a sustainable funding. This entails sponsorship from private partners either for annual events, such as a running race, or continuous programs, such as an adopt-a-trail program. The intent with this model is to secure long-term funding while at the same time foster community connections between local businesses and trail users.

In order to properly assess the trail and potential impacts/benefits to Lil'wat Nation, an assessment of the area may be required. The potential costs associated with the field reconnaissance and/or archaeological assessments is often difficult for the volunteer organizations to obtain. The SLRD, VOP and Trails Groups should consider requesting that Province (RSTBC) devote resources to trail referrals and the review work. RSTBC could be requested to seek annual seed funding to be devoted to archaeological studies and other due diligence work required during the review and approval process for the trail.

Partnership Agreement Holders may apply to the Province (RSTBC) for funding to help cover the costs associated with Archaeological assessments. These requests will be evaluated within Sea to Sky Recreation District priorities.

Finally, alternative funding models have also been explored. These include local trails organizations operating as commercial trail guiding companies, sale of merchandise, and events. Ultimately, aside from long-term funding from stable revenue sources, it is likely that a blend of funding approaches tailored to the local context will be needed.

It should be noted that obtaining funds for trail use may create additional legal risk for the organization granted authority for the trail under FRPA, and large scale events hosted on FRPA Sec. 57 authorized trails will require further approvals from RSTBC.

9.3.1 PROPOSED GRANT APPLICATION APPROACH

Acknowledging that the predominant model for funding trail management is through grants, the following outlines a proposed method for Pemberton Valley stakeholders to organize grant applications.

The diversity of stakeholders in the Pemberton Valley opens up a wide variety of grant opportunities. Many Provincial funding sources are open to local governments, First Nations, and non-profit organizations. Grants from private or non-profit sources are usually targeted, focusing on specific uses or user groups (e.g. rail-to-trail conversion, local equestrian groups, etc.).

Given the often strict conditions for private and non-profit grants, application for grants will remain the purview of each of the Pemberton Valley's stakeholder groups. However, it is recommended that, where possible, the SLRD or Village of Pemberton serve as the applicant. Their legal responsibility for land use (i.e. land use bylaws) will help to convey to the granting bodies the alignment of the project with existing land use plans. Further, in an effort to ensure that multiple stakeholders do not apply for the same grant, thereby duplicating work or competing with each other, it is recommended that a Standing Trails Committee act as a coordinating body.

The terms of the grants will likely dictate which trails projects can be worked on, such that stakeholders may not be able to address trail management items by priority. However, using the Trails Master Plan as a guide and coordinating through the Standing Trails Committee all efforts should be made to address the most urgent issues first.

A list of potential funding sources is included in Appendix E.

9.3.2 PUBLIC VOLUNTEER EVENTS

The Pemberton Valley trail network already benefits from the hard work of many different volunteer groups. However, there are individuals from the broader community that may be interested in volunteering at specific events, such as a trail clean-up day or trail building day. These events would reach beyond established trail groups, connecting to the broader community. This would offer an opportunity to connect with people, educate them about the trail network, and build community. Trail volunteer events are a great way to bring different user groups together, providing a forum for discussion. Ideally, these events should be coordinated by the SLRD in conjunction with the PVTA and the Lil'wat Nation.

10 IMPLEMENTATION PLAN

10.1 TRAILS PLAN MONITORING COMMITTEE

Establish a Trails Plan Monitoring Committee to support the exchange of information and foster effective communication between all trail users, ultimately enhancing the trail planning process. An annual, or semi-annual meeting could be convened for the plan Monitoring Committee to review plan implementation and make recommendations with regard to future trails management. At the time of writing, it is recommended that the following be included: SLRD, VOP, Lil'wat Nation, PVTA, PORCA and PWA.

10.2 PLAN IMPLEMENTATION

Time Period	Recommendation
Short Term	Where possible, reduce the strain on volunteers by utilizing grant funding and hiring paid trail crew members. PVTA may wish to consider a paid Operations Manager.
Ongoing	The SLRD and Village of Pemberton should continue to provide financial support through the Pemberton Valley Recreational Trails Service for trails development to support recreation for residents and visitors.

10.3 COMMUNITY OUTREACH, EDUCATION, AND COMMUNICATION

Time Period	Recommendation
Short Term	Adopt a communication strategy to increase awareness of the problems caused by unauthorized trail building.
	Explore opportunities to increase trail users' awareness of Lil'wat Nation land, history, and traditional use
	Work to create opportunities and secure funding that will enable the hiring of youth trail ambassadors from the Lil'wat Nation.
	Create a mechanism for trail users to report trail issues and maintenance requirements for all trail types.
Ongoing	Land Use Policies, such as Official Community Plans by the SLRD and Village of Pemberton should continue to express the need for replacement of any lost trails with trails of a similar character (classification and designation).

10.4 SIGNAGE

Time Period	Recommendation
Short Term	To support the objective of increasing awareness of Lil'wat Nation land, history, and traditional use, install signage where appropriate (e.g. "You are recreating in the traditional territory of the Lil'wat Nation"). Signage could also incorporate Lil'wat art and places names in Ucwalmícwts, if desired.

Time Period	Recommendation
	Specific sign installations recommended in this plan: Wild Bill's, Mt. Currie, Mackenzie seasonal closures, mixed use notifications (e.g. where non-moto trails exit onto roadways)
	Install signs on downhill mountain bike trails where needed to ensure all users are aware of safety hazard and potential conflicts.
	Install enforcement signage (e.g. hiking only) in appropriate location, noting reasons for restrictions.
Medium Term	Celebrate local character with a comprehensive, visually appealing, and approachable signage and wayfinding program that augments the required Recreation Sites and Trails BC signage.
	Develop a difficulty rating system that can be applied to multi-use trails and included on trail signage.
	Install interpretive and educational signage at priority trailheads and staging areas, where appropriate.
	Include "no unauthorized trail building" signage and information about the Forest Range and Practices Act at key trailhead and staging area kiosks.
Ongoing	Incorporate Lil'wat Nation information on signage and at trailhead and staging area kiosks.
	Follow the Recreational Sites and Trails BC signage and wayfinding guidelines and standards.

10.5 TRAIL MAINTENANCE

Time Period	Recommendation
Short Term	<p>Refer to the Lil'wat Nation list of hot spots to establish where maintenance activities will require consultation. Find agreement with Lil'wat Nation on how the consultation process will be carried out to ensure it is effective and efficient.</p> <p>The map may be updated as new sites are identified. This map will be an internal working document for reference by the Lil'wat Nation, the SLRD, and the PVTA.</p>
Medium Term	Prioritize and develop staging points as identified in the Trails Master Plan.
Ongoing	In collaboration with stakeholders, continue to refine the preliminary recreational zoning plan to identify both "no-go" zones and areas approved for development.

10.6 TRAIL DEVELOPMENT

Time Period	Recommendation
Short Term	Develop a list of existing priority unauthorized trails and apply for s. 57/56 status to protect these assets
Ongoing	Work to develop beginner and intermediate mountain bike trails where possible to cater to a larger range of trail users.
	Continue to work to secure public access to waterways (i.e. Lillooet and Birkenhead Rivers) such as Clover Road right of way.

	Prioritize and work towards recommended projects from the 2009 Trails Master Plan (e.g. complete the Friendship Trail).
	Improve staging (signage, parking, and/or washrooms) at the bottom of Happy Trail, and along the Mackenzie FSR at the top of Waco Connector and Upper Mackenzie Cruise, and Urdal Road “Naylor Way” Trail.
	Explore opportunities to integrate recreational and industrial use, such as creating trails in areas that have been logged.
	Explore opportunities and potential locations to develop dedicated moto trails

10.7 USER CONFLICT REDUCTION

Time Period	Recommendation
Ongoing	Explore options to monitor e-bike use, develop a monitoring procedure and revisit e-bike policy in future after data collection
	Develop a Trail Use Etiquette policy to establish a common understanding of appropriate trail use and behaviour – refer to WORCA’s “RESPECT” model