

Larch Hills Non-Winter Trail Use Study and Draft Trail Stewardship Recommendations

June – December 2007

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In consultation with representation from the Larch Hills Nordic Society, Shuswap Outdoors!, The Shuswap Trail Alliance, BC MTSA Rec Sites and Trails, MoE BC Parks, CSRD Parks, Back Country Horsemen of BC, EQ Trail Riders Association, Sicamous Quadders, Salmon Arm Nature's Nomads ATV Club, S.O.R.E. Motorcycle Club, Salmon Arm Fish and Game Club, Shuswap Naturalists, Woodlot 1571 & 1572 Licensees, and other stakeholder groups including industry and local residents.

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Executive Summary

The Larch Hills Non-Winter Trail Study and Draft Stewardship Recommendations provide a brief review of the Larch Hills Recreational Trail System, history of its development, relevant jurisdictional bounds, and key stakeholders. It then provides a summary of the 2007 non-winter trail use study results, identifies core management challenges, and presents a prioritized series of joint stewardship management recommendations that were developed in consultation with a multi-stakeholder advisory committee.

The process also built the groundwork for a strong multi-stakeholder coalition committed to working together, helped to trigger action to manage ecological and recreational values of the Larch Hills Trail system in a sustainable way, and set a precedent for co-use trail management and planning in other parts of the Shuswap. It was a process summarized by one contributor as a commitment to mutual respect, cooperation, and stewardship.

Four Key Stewardship Recommendations

Through the course of the study and consultation it became clear that while there was clearly a diversity of recreational use during the non-winter months by both non-motorized and motorized users several priorities were shared. At the top of the list was concern for increased environmental damage, particularly within the wetland bogs of Upper Violet Creek Provincial Park. These are reflected in the draft recommendations for non-winter trail management in the Larch Hills. Four core stewardship recommendations are critical to the overall plan.

1. Agree to Non-Winter Stewardship Priorities

A foundational set of Stewardship Priorities was drafted during the study process to guide future decision making for non-winter trail management within the Larch Hills Trail system. The statement directs recreational users to *“Maintain the Larch Hills Recreational Trails in a spirit of mutual respect, cooperation, and stewardship as a multi-use trail system in the non-winter months based on the following Stewardship Priorities:*

- a. management of trails in a manner that will protect and conserve species and ecosystems*
- b. respect for the areas Nordic ski use and non-motorized trail history*
- c. quiet semi-wilderness natural trail experiences*
- d. appropriately designated non-technical touring trails for a variety of users*
- e. family outdoor recreation*
- f. trail use safety and security”*

(Larch Hills Non-Winter Trail Recommendations 1.4, Jan. 22, 2008)

These six priorities define the overall nature and character desired for the area.

2. Draft Environmental and Recreational Trail Quality Measures

It was identified that environmental and recreational trail quality measures were needed that reflect the stewardship priorities and can be easily monitored. (Larch Hills Non-Winter Trail Recommendations 1.6, Jan. 22, 2008) Four areas for monitor were identified as Visual Quality, Noise Quality, Quality of Interaction between user

groups, and Site and Trail disturbance. Variance beyond an acceptable level under each of these would initiate new consultation and adaptations to trail and site management.

Shared discussion to establish measures in these four areas will provide an opportunity to clarify desired standards together. These, in turn, provide a tangible framework for monitoring the success of the trail stewardship plan and alert the advisory to the need for revision, adaptations, and potential mitigating action and enforcement.

Note: two pilot projects in the Province of BC are currently exploring the use of a similar model for recreational management called the *Limits of Acceptable Change (LAC) Process*, and may provide a developed tool for implementation. (BCILMB, 2007)

3. Designate Trail Use

Recommendation 1.5 establishes the need to assess and designate non-winter trail use as either multi-use, non-motorized use, and where appropriate, specified single use. As well, several trails are recommended for non-winter closure due to environmental sensitivity or damage.

It was agreed by advisory partners that recommendations for appropriate use of trails was required to ensure both trail tread sustainability, environmental sensitivity, historic use, and current use were maintained. As well, trail designations provide a framework from which to propose and plan future winter and non-winter trail work.

A series of proposed trail use designations are outlined and mapped based on this discussion. They try to factor in the need for signature trail loops for each user group and a balance of experiences, while still honouring the historic non-motorized character of the area and those trails that were purpose built for non-motorized recreation.

Where trails are purpose built and not designated as status Forest Service Roads, authorized designations would be recommended to advance to the level of provincial authorization. Where trails follow existing status roads and forestry tracks, recommended use would be directive and not binding. In the case of the new Larch Hills Traverse trail sections built under the Shuswap Trail initiative, authorization is already in place under Section 57 of the Forest and Range Practises Act (FRPA) designating these as four season non-motorized routes.

4. Create a Multi-Stakeholder Trail Stewardship Advisory Committee

The importance of agreeing to coordinate all trail works from this point forward is critical. With more than 10 trail stewardship groups identified with interests in the Larch Hills, the potential for unintended damage and over development of the area is eminent. The experience of the study process steering advisory would affirm the combined and coordinated efforts of these organizations and groups will provide a more effective and efficient result. As well, several of the organizations and their supporting provincial associations have offered to assist with in-kind and financial contributions to manage the area under a collaborative agreement.

Further work is needed to determine the final shape and structure of a non-winter trail advisory. Regardless, the 2007 study affirms the importance of immediately launching a permanent advisory body to effectively implement the recommendations for non-winter management of the Larch Hills trail system.

Section 1: Introduction

The Larch Hills Non-Winter Trail Study grew out of a joint meeting hosted by the Larch Hills Nordic Society and the Shuswap Trail Alliance on February 20, 2007 to discuss growing concerns over increased pressure on the ski trails in the Larch Hills during the non-winter months. Recent experience was showing increased damage to facilities, wear and erosion to trails, significant habitat damage in several areas, and increased use of the trails by new users throughout the year. (C. Letham, Jan. 13, 2007). As well, the Shuswap Trail Alliance had completed a consultative study of trail development throughout the Shuswap determining a clear need for collaboration between non-motorized and motorized recreational trail organizations and users. (P. McIntyre-Paul, 2006)

The discussion invited representatives of local motorized and non-motorized recreational user groups in the region, along with representatives from regional and provincial recreational parks and trail offices, to gather for a mutual conversation to consider emerging challenges in the landscape and potential strategies for action. It was a refreshing opportunity for traditionally isolated user groups to meet, build relationships, identify challenges, and establish the common starting points for working together.

This report presents a brief review of the Larch Hills Recreational Trail System, history of its development, relevant jurisdictional bounds, and key stakeholders. It then provides a summary of the 2007 non-winter trail use study results, identifies core challenges, and presents a prioritized series of joint stewardship management recommendations that were developed in consultation with the multi-stakeholder advisory committee.

Primary Goals

Two primary goals emerged out of the February 2007 multi-user meeting:

1. to produce a non-winter recreational management plan for the Larch Hills Nordic Trails;
2. to inform co-use trail management and planning in other parts of the region.

Operating Goals: Respect, Cooperation, Stewardship

Seven operating assumptions – or directional goals – were also identified during the February 2007 meeting.

These were identified as common points of agreement and a clear indication that working together would produce results no single group could forge on their own. These goals of common agreement identified the need to:

1. to work together
2. to identify appropriate use for existing trails together
3. to design new trails for intended use
4. to sustain ecologically sensitive habitat
5. to displace vandalism
6. to create a system for signage, monitoring, and operation of trails
7. and to cooperatively train and educate users

Both the tone of the inaugural meeting and the unanimity of agreement in the value of working together toward the above goals established a founding character for the subsequent study process and advisory committee. This was articulated by a member of the committee as one of mutual respect, cooperation, and stewardship.

Study Objectives and Outcomes

The regional officer from the Provincial Recreational Sites and Trails Office recommended a study and trail management plan for the area be developed (K. Gibson, Feb. 2007) and was able to secure a starting grant of \$2500. This grant was matched with funding from the Larch Hills Nordic Society (\$2500) and the Shuswap Trail Alliance (\$1000), as well as in-kind volunteer and material contributions. These funds were used to secure dedicated project facilitation through the Shuswap Trail Alliance and provide for expenses including mapping and temporary trail signage. (A detailed outline of project objectives and budget is attached.)

The following outcomes were established to focus and guide the 2007 Larch Hills Non-Winter Trail Use Study:

1. to assess and summarize current non-winter recreational use of the Larch Hills trail system
2. to review other multi-use trail plans that might inform and assist the Larch Hills plan
3. to identify current stakeholders
4. to review ecological habitat interests
5. to conduct an inventory of current trail conditions
6. to determine appropriate use for each trail
7. to identify options for implementation

Study Timeline

The following timeline was established for the trail study:

June 2007	<ul style="list-style-type: none"> • Assemble steering advisory and prepare study tools • First public input session to receive preliminary direction on trail use
July – October 2007	<ul style="list-style-type: none"> • Conduct survey, interviews, and inventory of current trail conditions
September 2007	<ul style="list-style-type: none"> • Collate data
October 2007	<ul style="list-style-type: none"> • Prepare a draft summary of study data and recommendations, plus mapping
November 2007	<ul style="list-style-type: none"> • Present recommendations and mapping for public review and direction
December 2007	<ul style="list-style-type: none"> • Prepare final draft report to be presented to the Larch Hills Nordic Society and advisory partners
Spring 2008	<ul style="list-style-type: none"> • Complete final report; implement recommendations

Figure 1: Study Timeline

On direction by the advisory committee, the process was extended to include additional follow-up meetings following the November Public review session and following the submission of the final draft report to the Larch

Hills Nordic Society and other advisory partners. This will help to ensure implementation of the study recommendations is initiated as well as provide further opportunity to continue working together. Deadline for submission of the draft report was extended to January 2008, with advisory follow-up in February 2008. The process was formally concluded in March 2008, with a commitment from the advisory partners to reconvene in the spring to begin work on implementation of the recommendations.

Study Method and Tools

The following tools were developed in consultation with the advisory committee to gather data for this study.

Steering Advisory Committee

A multi-stakeholder advisory was formed to provide oversight and direction to the study process. Invitation was extended to stakeholder organizations including motorized and non-motorized stewardship groups, provincial land resource ministry representatives, local residents, and industry.

George Zorn (past president, Larch Hills Nordic Society) agreed on invitation by the Larch Hills Nordic Society, to act as advisory chairperson. The role of the chairperson was to assist the project coordinator in identifying advisory members, setting meeting dates, and chairing advisory meetings.

Phil McIntyre-Paul, project liaison with the Shuswap Trail Alliance, was contracted to coordinate the study process. This included facilitation of advisory and public input sessions, and preparation of reports.

Advisory members committed to participating in three advisory meetings, providing direction to the process, advising the project coordinator, representing stakeholder groups, providing direction for final reporting, mapping and recommendations, and acting as a liaison and contact for the project on behalf of their respective organization.

The advisory committee included representation from the Larch Hills Nordic Society, Shuswap Outdoors!, The Shuswap Trail Alliance, BC MTSA Rec Sites and Trails, MoE BC Parks, CSRD Parks, Back Country Horsemen of BC, EQ Trail Riders Association, Sicamous Quadders, Salmon Arm Nature's Nomads ATV Club, S.O.R.E. Motorcycle Club, Salmon Arm Fish and Game Club, Shuswap Naturalists, Woodlot 1571 & 1572 Licensees, and other stakeholder groups including industry and local residents.

The following people were involved in the advisory committee:

- Allen Walker (Salmon Arm Natures Nomads ATV Club)
- Blain Carson (Larch Hills Nordic Society Joint Trails Committee Chair, and LHNS Tracksetters)
- Bruce Moores (Sicamous Quadders ATV Club, Eagle Valley Snowmobile Club)
- Chris Letham (Larch Hills Nordic Society Executive)
- Clint Smith (Larch Hills Nordic Society, Mountain Bike)
- Connie Harris (Shuswap Outdoors!)
- Curt Olsen (Forestry Woodlot Licensee)
- David Guenter (S.O.R.E. Motorcycle Club)

- Gary Kalloch (Shuswap Outdoors!)
- George Zorn (Advisory Chair, Larch Hills Nordic Society, Shuswap Outdoors!)
- Jim Beckner (Larch Hills Nordic Society, Chalet and Parking Lot Renovations)
- John Coffey (Shuswap Trail Alliance, Shuswap Naturalists, Mara Meadows Ecological Warden)
- John Henderson (President, Larch Hills Nordic Society)
- John Pagdin (past treasurer, Larch Hills Nordic Society)
- John Thielman (Larch Hills Resident, Larch Hills Nordic Society)
- Ken Gibson (MTSA Recreational Sites and Trails Officer)
- Kevin Wilson (Warden, North Okanagan BC Parks, Ministry of Environment)
- Leo Lenglet (Back Country Horsemen, EQ Trail Riders Association)
- Mel Arnold (Salmon Arm Fish and Game Club, Wildlife Federation, Wilderness Watch)
- Pauline Hickson (Larch Hills Nordic Society Chalet Site Custodian)
- Phil McIntyre-Paul (Project Coordinator, Shuswap Trail Alliance, Larch Hills Nordic Society)
- Roger Beardmore (CSRD Parks Planner)
- Rose Gunoff (Area Supervisor, North Okanagan BC Parks, Ministry of Environment)
- Wayne Kells (Salmon Arm Fish and Game Club, Salmon Arm Natures Nomads ATV Club)

Public Input Sessions

Two public sessions were scheduled to invite direction and input from the wider public. These meetings were publicized through local media and email bulletins distributed through the advisory stakeholders contact networks.

The first public session held June 25, 2007 (7 – 8:30 pm) at Okanagan College, Salmon Arm saw a strong representation of stakeholder groups including both motorized and non-motorized recreational trail interests. The summer study process was reviewed, questions and input on the process discussed, and key issues identified.

The second public session took place on November 19, 2007 (7 – 9:00 pm) at Okanagan College, Salmon Arm, presenting a summary report of findings and recommendations based on gathered data. Again, public feedback, questions, and direction was offered. This feedback was taken back to the advisory and used to revise the final draft report and mapping.

Option for a third public session: during the November public session it was suggested a third session might be useful in the New Year to outline agreed on steps for implementation following presentation of the draft report to the Larch Hills Nordic Society and advisory partners. This would also provide an opportunity to introduce the new trail allocations and anticipated spring placement of barriers and signs.

Public Trail Use Survey

Through consultation with the advisory committee, a survey for public input was developed to assess current non-winter use of the trails maintained by the Larch Hills Nordic Ski Society, and to gain a better understanding of public opinion regarding future use, maintenance, and management priorities for the area. (see sample survey attached)

The survey was publicly distributed targeting both motorized and non-motorized recreational users, as well as other stakeholders. It was administered as a voluntary survey through general invitation both on site at the main Larch Hills Chalet parking area, and through public media and electronic data lists. Development of the online survey was sponsored through the Shuswap Trail Alliance and prepared by Jim Maybee. The Larch Hills Nordic website link was prepared by Mary Scheidegger.

The survey was administered between July and October 2007. Additional opportunity for survey submissions was extended into December 2007 following recommendation during the public session in November.

Copies of the survey were made available on site at the Larch Hills Chalet through the custodians and eight volunteer hosted half-day sessions at the end of July/beginning of August. Megan Howard (Business Management student, OK College) assisted coordination of the Survey and volunteer distribution through an Okanagan College student practicum. Originally, these on-site sessions were intended to generate direct survey responses. In fact, while all users were introduced to the study process and invited to complete the survey, most took the survey or website address and completed them online. The use of the online survey proved to be a practical and accessible tool for gathering submissions. The volunteer sessions were useful in providing information to users, assisting the custodian in keeping the onsite user tally, gathering qualitative data, and directing people to the online survey.

124 surveys were returned. 103 were submitted online. 11 were mailed through Canada Post. 4 were completed on site at the Larch Hills Chalet parking lot. A summary of results is included in this report. (Raw data is available for review on request.)

Limitations in the survey need to be acknowledged. Control of the participant sample was limited to a publicly distributed voluntary survey. Invitation to complete the survey, however, was widely distributed and publicly advertised. Invitation to complete surveys was advertised through all the local regional newspapers including Enderby, Sicamous, and Salmon Arm. The online survey was circulated through the Larch Hills Nordic Society membership database, the Shuswap Trail Alliance contact database, and the online databases of the advisory organizations. Two additional email reminders were sent out in the fall.

Voluntary surveys will have inherent biases. The data will reflect limitations in the range of distribution within the respective advisory partner organizations. The Larch Hills Nordic Society is the largest of the advisory stakeholder organizations. Its membership is approximately 900 members and will likely reflect a larger percentage of the overall sample size. The data also appears to reflect the non-motorized character of the area's history and current use, which continues to be significant as indicated through 2007 trail register counts and custodian tallies. While both non-motorized and motorized recreational use is significant in the area, non-motorized users appeared more likely to complete surveys.

Survey returns by motorized users, while drawing on a smaller sample, provide enough data to make general comparisons useful for consideration by the steering advisory and stakeholder organizations when identifying key issues, challenges, and priorities for discussion and agreement.

When analyzed in conjunction with data reflected in both trail registers and onsite tallies, and when placed against qualitative input, the cumulative survey responses appear to provide consistent and supportive data. It is the author's opinion that survey results provide reasonable insight into both the current recreational use of the Larch Hills and perceived priorities for future non-winter recreational management of the trails

Trail Registers

Five trail register locations were established to track daily trail use, type of use, party numbers, and where people were from. Ken Gibson (MTSA Revelstoke) was able to donate register boxers through the Ministry of Tourism, Sport and the Arts Recreational Sites and Trails office. Six boxes were donated in total. John Thielman (Edgar Road, John's Ski Shack) donated posts. With the assistance of John Coffey (Shuswap Trail Alliance, Shuswap Naturalists), register boxes were mounted at the main Chalet Parking lot (one at the road entrance and one at the main Larch Hills Nordic sign), Cec's Cabin, Larch Hills Road North at Fir Lane, Tom's Shelter, and Metford Road at Lidstone Connection. Registers included invitation to complete a survey. Information maps were also included at the Main Chalet, Cec's Cabin, and the Fir Lane Register Box.

All registers were monitored throughout the summer and fall season. Response at five of the six locations was encouraging throughout the summer and fall season, providing a consistent snap shot on the number and type of users frequenting the sites. Further discussion of this information is presented later in this report. The Metford Road register was completely destroyed within two weeks of being mounted. This was an intriguing contrast to all of the other register sites that consistently received welcome responses and no damage.

Custodian Monitor

Sally Fisher and Pauline Hickson, the new Larch Hills custodians, maintained a steady presence at the Chalet Parking lot together with three dogs. The custodians assisted in maintaining a record of user numbers and types of use at the main Chalet Parking Lot. Their tally provides a valuable point of cross-reference in estimating more accurate user numbers in relation to the trail registers and the surveys. The custodians were also invaluable in helping to educate users, provide information, gather qualitative data, direct people to the online survey, and relay information to the summer study project coordinator. Sally Fisher also assisted in gathering information from Tunkwa lake Provincial Park that manages multiple recreational trail use including ATVs. (S. Fisher, July 2007)

Temporary Non-Winter Trail Maps

On the direction of the Advisory, a temporary summer trail map was prepared in order to:

- a) Attract people to the trail registers,
- b) Educate and direct users away from sensitive wetland habitat accessible via the winter ski trail routes,
- c) Identify private woodlots closed to summer recreational access,
- d) Provide background and contact information on the Summer Trail Use study.

Maps included background on the Summer trail use study process and included invitation and location details of the online survey. As well, phone and email contact information was included. Tony Lewis at Canadian Photoscene provided a subsidized cost for map printing. Maps were very well received by all trail users. 200 colour maps were printed and placed at all trail register sites, and restocked as needed. This number seemed to be sufficient to satisfy those looking for a map during the summer and a second printing was not needed.

Temporary Closure Signs and Nature Trail Signs

In conjunction with the temporary summer trail map, the Advisory requested the use of signs and flagging to clearly identify and discourage access into sensitive wetland habitat. The intention was to reinforce the information in the temporary summer trail maps steering use away from trails suitable for winter access but unsuitable for summer use.

Temporary signs were designed based on the new Shuswap Trail sign standards with direction from Ken Gibson and the Provincial trail strategy. (See attached.) Flagging was used to “gate” the trail, with space for animal movement. Signs indicated a voluntary request for compliance in the absence of official approvals. For the most part, users were supportive and respectful of these requests. Ongoing damage to Frodos bog, however, prompted immediate investigation and response from provincial land resource officers.

Temporary trail restriction signs were also prepared to mark the Interpretative Nature Trail surrounding Frodo’s Bog. This signage identified the trail as a hiking only route.

Trail Inventory and Photo Archive

An inventory of current trail conditions was conducted of all trails with assistance from John Coffey, Clint Smith, Blaine Carson, George Zorn, Leo Lenglet, Sally Fisher, Allen Walker, and the project coordinator. Photo records were taken where possible. Temporary closure signs and register boxes were also monitored. A brief summary of conditions is included with this report and a photo archive has been built to support the next steps of authorization and implementation related to the non-winter management plan.

Invitation to assist in feedback on trail conditions was extended to the membership of the advisory organizations. This proved to be invaluable, including alert of the bog damage in the area.

Stakeholder Interviews

Stakeholder interviews were conducted to both identify and qualify key emerging challenges and issues related to non-winter use of the Larch Hills trail system. These interviews included the Larch Hills custodians, Edgar Road residents, Rosemond Lake residents, recreational trail users including leadership from Larch Hills Nordic Society, Shuswap Outdoors, local ATV club users, members of the S.O.R.E. Motorcycle Club, mud bog proponents, Tolko and Federated Coop forest planners, independent woodlot licensee Curt Olsen, Spalumcheen Indian Band Land Resource office, retired Ministry of Forests Recreation Officer John Delay, and provincial MTSA Recreational Sites and Trails, Ministry of Environment, and Ministry of Forest and Range district officers. An onsite meeting and site tour with regional land resource ministry officers was conducted in September. (Site visit, Sept. 14, 2007)

Review of Other Trail Systems

Background information from other trail systems that have developed multi-user management agreements was requested from provincial land resource contacts. Gathered resources include:

- A sample user agreement was obtained through the McGregor/Torpy Winter Recreation area near Prince George, BC thanks to the sleuthing and correspondence with David King. (email, July 2007)
- Additional information on multi-use recreational cooperation was gathered through phone interviews with Wayne Giles, President of the Prince George Backcountry Recreation Society, who are currently working on a very similar plan for recreational trails adjacent to Prince George. (phone, May 15, 2008)
- Background and signage samples were collected from the Tunkwa and Leighton Area BC Parks Trail System with thanks to Sally Fisher. (interview, S. Fisher, July 2007)
- A copy of the Provincial Memorandum of Agreement with the Revelstoke ATV Club was provided by Ken Gibson as a sample for a potential non-winter draft agreement in the Larch Hills area. (K. Gibson, MoF, March 13, 2003)
- Background material and mapping from the Friends of the South Slopes in central Okanagan was provided by Ross Gunoff related to a multistakeholder society approach to supporting management of trails in BC Parks. (Correspondence, Dec. 20, 2007)
- Research from the Valemont and Area Recreation Development Association including a copy of their Winter Recreation Sustainable Resource Management Plan. (Jan. 2005)
- Terms of Reference were gathered from the Golden Backcountry Recreation Advisory Committee that was created to liaison with the provincial government's Golden Backcountry Recreation Access Plan. (Dec. 2005)

The MTSA Recreational Sites and Trails office was not able to provide stewardship agreements similar to a recreation site like the Larch Hills, but did provide management agreements from the Revelstoke ATV Club as reference. (K. Gibson, Correspondence, Oct. 10, 2007)

There are also two pilot projects currently underway by the Integrated Land Management Bureau and the Ministry of Tourism Sport and the Arts to examine balanced recreation management approaches that are integrated with other land and resource uses. (ILMB, 2002) The Golden study mentioned above is one of the two and may warrant further consideration in looking to implications for regional multi-use recreational trail planning.

Several other trail systems were identified and may warrant further research as implementation of the non-winter trail strategy is implemented. These included a multi-user agreement at Vedder Mountain near Chilliwack (correspondence, L. Lenglet, Dec. 13, 2007) And recreational planning by the Washington State Forest Service (correspondence, C. Smith, Dec 7, 2007)

The technical complexity and scope of these wider recreational resource management projects is beyond the capacity of this study. They are relevant, however, to the further application of the Larch Hills Non-Winter Trail Use Study to a wider regional discussion regarding collaborative recreational trail planning.

It is recommended further research and consultation with other trail systems in the province be continued during the implementation of a shared use stewardship agreement. Copies of the collected resources have been archived and are listed in the references.

Section 2: The Larch Hills Recreational Trail System

The Larch Hills recreational trails fall within an area of approximately 3000 hectares on the south eastern edge of the wider Larch Hills located above the south shore of the Salmon Arm of Shuswap Lake and west of Mara Lake, at the top of the North Okanagan valley, British Columbia. Approximately 30 kilometres across, the rolling highlands are indicative of the surrounding Shuswap watershed – primarily forested, actively logged, and deceptively contouring to a summit height of 1400 metres above sea level and the surrounding lake valley bottom communities of Salmon Arm on the west, Sicamous on the east, and Enderby to the south. The main Chalet parking area to the Larch Hills Nordic Ski area is a 23-kilometre drive from the Shuswap community of Salmon Arm to the west. (See attached “general location map”)

Mixed Forests and Unique Wetland Bogs

The forested slopes host rich layers of ecological and human history. The forest cover includes stands of mixed western red cedar, hemlock, fir, spruce, and pine with under story growth including boxwood and huckleberry – two traditionally harvested shrubs in the region. Numerous riparian areas include forest cover of cedar, hemlock, paper birch and cottonwood as well as lower under story growth of willow and red osier dogwood. (MoE, 2006, p. 1) Area stands of predominant pine have seen recent decimation by Mountain Pine Beetle.

A mix of fauna is common, including deer and frequent moose sightings. The area is also home to bear, cougar, lynx, and coyote populations that traditionally fluctuate with seasonal changes in smaller species populations. Also of note: the Larch Hills is recognized as prime habitat for Fisher, a blue listed species that favours mixed, and often wetter, forest ecosystems. (ILMB, 2001, p. WILDLIFE 3-3) Maintaining healthy riparian and old growth forest corridors along riparian systems are beneficial as a source of Fisher prey, movement, and dens.

The region is perhaps most uniquely recognized for its series of wetland bogs – old lakes that over time have become vegetated but remain water bound. These open wetland bogs enclosed by gently hilled forests are connected by a weave of streams that create significant zones of ecological diversity.

The lower bogs of Mara Meadows on the southern bench support such a rare and varied ecosystem they were established as a protected Ecological Reserve in 1972. Public access closed in 1977 due to the extreme sensitivity to human disturbance of the area, known as a calcareous fen ecosystem. According to provincial reports, 14 of 32 known orchid species found in BC grow in the area creating “a diversity unmatched anywhere else in the province.” (MoE, Feb. 2006, p. 1) The Mara Meadows include several rare orchids, including a species not found anywhere west of the Rockies

Shuswap First Nations

The first nations peoples of the region are part of the Shuswap Nation represented locally by four bands – the Adams Lake, Neskonlith, Little Shuswap, and Spallumcheen Bands. The land provides core values important to Aboriginal culture including botanical species, dyes and pigment ochre, sacred sites, hunting, berry picking, economy and trade (Running Horse Consulting, 2001, p. 12) The Larch Hills is within the Shuswap First Nations territory and is accessed for botanical, hunting, and harvesting purposes. Consultation with local Band leadership is important for accountable and authentic development of recreational resources. The regional Shuswap Trail strategy is developing an understanding of partnership with Shuswap First Nations leadership. (Shuswap Trail

Alliance, 2006) And under Provincial policy, all recreational development and new work on crown lands must involve aboriginal consultation in order to receive approval.

Homesteads and Horse Logging

Many of the early tracks that exist in the area can be attributed to horse logging and pole camps from the 1920's and 30's. Many were built by Peter Thielman, local logger and homesteader. Four generations of the Thielman family continue to live in the Larch Hills. (Larch Hills Trails Historical Notes, n.d.) Remnants of this early logging activity can still be found. Historic notes also indicate large fires that burned parts of the Larch Hills forests between 1910 and 1930.

Edgar Road and the Grandview Bench residents continue to reflect a varied and long standing local connection to the Larch Hills.

Working Forest

The Larch Hills are best described as a working forest, with most of the timber managed under harvest licenses with Tolko, Federated Coop, Bell Pole, and independent woodlot licensees. The area is actively logged and recreational trails are required to be flexible within the annual work plans of these businesses. A good working relationship of cooperation has been built over 30 years of recreational trail use in the area.

“From a forestry stand point we are committed to working with the recreational interests in the area... to ensure our development meets the commitments of the LRMP and is sensitive to recreation interests.”

(H. Waters, Planning Forester, Tolko, correspondence, Sept. 21, 2007)

Both Federated Coop and Tolko have new harvest blocks planned in areas that intersect with the trail system, primarily in the North areas. Tolko anticipates access and harvesting of blocks north of the Deer Track trail via the Larch Hills Forest Service Road sometime within the next 10 years. (meeting, H. Waters, June 13, 2007) Independent woodlot licensees, Glen Ritchie and Curt Olsen, harvested new timber stands during the 2007 summer season east of Lidstone Connection.

30 Year History of Nordic Skiing and Hiking Trail Development

In the 1970's local residents hiking, cycling, and skiing the Larch Hills acknowledged the maze of existing roads and skid tracks formed excellent Nordic ski trails in the winter. The Shuswap Outdoors Club began to identify and map these routes for self-propelled use, (Barz, Crowley, Crowley, and Wharton, 1976), and in the Fall of 1977 received Federal funding to build and sign new dedicated recreational trails for hiking and skiing. (Larch Hills Ski Club “Milestones”, n.d.) Further funding was secured for a second trail project, and by 1979 the first Larch Hills Ski Club meeting was held. (May 4th, 1979)

The Larch Hills Ski Club was incorporated in August 1980, the access road to the main parking lot established in 1982, the Chalet built in 1983, and the first ski programs and Reino Keski-Salmi Loppet launched in 1984. The Larch Hills Nordic Society has now grown to a membership of approximately 900 people. The Loppet, now in its 24th year, is one of the largest in the province attracting participation from throughout the province, Alberta, and internationally.

A 1620-hectare area of the Larch Hills was designated as a recreational trail site on Crown Land under the Forest Practices Code of British Columbia Act (FRPA) in 1983, and is managed under ten year renewable Memorandum of Agreements with the Province of British Columbia by the Larch Hills Nordic Society. (BC MoF, February 28, 2003, p.1) The first management agreement with BC Ministry of Forests was signed in 1985 (C. Harris, 2007) The current agreement was signed in 2003 and is up for renewal in 2013. It should also be noted that provincial responsibility for recreational sites and trails on crown land has moved to the Ministry of Tourism, Sport and the Arts (MTSA) since the memorandum was signed in 2003.

The Larch Hills Nordic Society maintains and manages the trail system for winter use under a joint trail management agreement with the Shuswap Outdoors Club. Shuswap Outdoors is named as an agent of the Larch Hills Nordic Society under this agreement. (BC MoF, 2003, 9.01b)

The recreational site includes several facilities including the log Warming Chalet at the main parking area on a designated 2.54-hectare housing lease on Crown land established in 1985. (BC MoF, Dec. 18, 2003, p.1) As well, the Larch Hills Nordic facilities include the upper Cec's Cabin, South Hub Pentti's Shelter, the southern Tom's Shelter, the recently constructed Track setters Workshop and Garage, and the newly established Custodian's Mobile home trailer and horse corrals at the southern boundary of the Main Chalet parking area.

The trail system includes 90 named trails totalling approximately 125 kilometres. 43 kilometres of these trails are track set width for both classic and skate Nordic ski technique. The remaining 82 kilometres are designated non-groomed Nordic trails and are primarily single-track width. These trails have doubled as single track natural hiking and cycling trails in the non-winter months. Equestrian trail riders have also used them.

An unwritten agreement was established between local snowmobile users and Nordic skiers sometime in the late 1980s early 90's. (C. Letham, C. Smith, discussions, 2007) Accurate dates or documentation were not available, but agreement was reached amongst local trail users that the Larch Hills would be established as a non-motorized winter recreation area, and the surrounding highland areas such as the Fly Hills and Hunters Range were established as motorized winter recreation areas maintained by local snowmobile clubs. Signs were placed on all road access points north, west and south of the trail system restricting non-motorized winter access.

In more recent years, increased use by motorized recreational vehicles including ATVs and motorcycles have moved from the existing roads and forestry skid tracks onto the single track trails originally established for skiing and hiking. In the case of the North Hub trails along the west side of the recreational area, the trail tread has not been able to sustain the impact of this increased use. Erosion and water flooding has rendered large sections of trail impassable in the summer.

Larch Hills Interpretive Forest Trail

Within the Larch Hills Nordic trail system is a small approximately 2 kilometre interpretive hiking loop surrounding Frodos Bog and linked into the South Hub. It was built in the 1980's under direction of John Delay with the Ministry of Forest's Recreation Office (J. Delay, interview, Oct. 31, 2007) Interpretive signs were placed around the loop, and viewing platforms were built out into the bog. As well, an interpretive information kiosk was built just north of the main parking lot.

The trail was originally intended as a foot trail. With the closure of the Salmon Arm Forest Service offices and subsequent collapse of Ministry of Forest recreational site management, maintenance of the interpretive loop was neglected. However, interpretive signs still stand, and a new set of replacement signs was discovered in storage at the Salmon Arm Community Living woodwork shop.

A second interpretive trail was built shortly after the first in partnership with local schools. Remnants of this trail can be found just east of the main Chalet. A third interpretive route was planned as a driving route up Larch Hills Road and back down Sky Trail. This was never completed. (J. Delay, interview, Oct. 31, 2007)

Okanagan Shuswap LRMP

The Larch Hills fall within the Okanagan Shuswap Land and Resource Management Plan (LRMP) established in April 2001. Developed through a multi-stakeholder process, the LRMP is intended to “provide direction for the management of the Crown land and resources within the plan area.” (ILMB, 2001, p. ES i)

The Larch Hills recreational trails fall under two levels of recreational resource management zoning within the LRMP identified as Shared Use Summer – Larch Hills 1, and Cross Country Skiing/Non-Motorized – Larch Hills 2. (See attached maps.)

Shared Use Summer Resource Management Zoning (RMZ) indicates the intended goals for summer recreational use is “to acknowledge and manage summer recreation in areas that have significant summer recreation attributes and historical recreation use.” (ILMB, 2001, p. REC 4-13). The zoning adds the following objectives: “to establish areas which are capable of sustaining a wide range of recreational opportunities. . .[and]. . .provide opportunities for organized and maintained trail networks.” (ILMB, 2001, p. REC 4-13, 4-14).

Of relevance to the non-winter trail use study is the Shared Use (Summer) Recreational RMZ. Any recreational development planning process must consider existing recreational use of an area, and may only establish seasonal restrictions for specific areas in consultation with identified user groups. (ILMB, 2001, p. REC 4-14)

Overall, the intent of the Shared Use zoning is to minimize area restrictions. However, the zoning acknowledges the influence of a wider range of local historical use as opposed to more specific designations like Motorcycle and Summer Motorized RMZs that are designed for managing areas identified as motorized recreational destinations on crown land. The Shared Use Summer RMZ recognizes the non-motorized winter trail use and historic summer use in the Larch Hills by hikers, cyclists and equestrian riders.

As well, the overall recreational resource management zoning is intended to provide direction in the prevention or resolution of conflict between recreational users. (ILMB, 2001, p. REC 3-5) Recreational users are encouraged under the LRMP guidelines, to respect recreational use by other users, communicate, and work out solutions on their own “using interest based negotiations.” (p. REC 3-5) The Larch Hills Non-Winter Trail Use study process is following this approach.

Cross Country Skiing/non-Motorized RMZ indicates intended winter recreational goals are “to acknowledge and manage specific areas developed and maintained for cross-country skiing. These areas require exclusive non-motorized recreational use during winter months to maintain the defined trail network.” (ILMB, 2001, p. REC 4-15) This includes “ensuring other recreational uses do not interfere with the use of groomed trails by cross-country skiers.” (ILMB, 2001, p. REC 4-16)

Dispersed Tourism Use RMZ – the Larch Hills recreational trails fall under the LRMP’s Dispersed Tourism zoning, which acknowledges the need for maintained scenic quality of views from existing tourism areas, trails and features. (ILMB, 2001, p. TOUR 4-4) The significance of the Larch Hills Nordic trails provincially mean this is a factor of consideration in any planning undertaken in the area, including forestry.

General Wildlife Management – the Okanagan – Shuswap LRMP also provides general objectives for maintaining adequate habitat for rare species that depend on wildlife diversity within crown land. As mentioned earlier, of note in the Larch Hills is its habitat suitability for Fisher, a blue listed species that favours wetter mixed forest ecosystems. (ILMB, 2001, p. WILDLIFE 3-3) Maintaining healthy riparian and old growth forest corridors along riparian systems should be considered a priority in stewardship planning for the area.

Note: conservation and protection of species populations are managed through the provincial Wildlife Act.

Upper Violet Creek Provincial Park

Increased pressure on the water source that feeds the Mara Meadows Ecological reserve led to recommendation the Upper Violet Creek be protected. The Upper Violet Creek riparian system is a network of tributary and wetland bogs flowing north to south through the centre of the Larch Hills recreational trail system. The Okanagan – Shuswap Land Resource Management Plan (2001) recommended protection of the Upper Violet Creek system, (p. 5-3) and the Upper Violet Creek Provincial Park was officially established in May 2004 (BC MoE, 2006) The Provincial Park boundaries “generally run 50 metres parallel on either side of the main stream course for about five and a half kilometres, and along either side of two short tributaries” [Bilbos and Frosos Bogs]. (BC MoE, 2006, p. 1)

The primary purpose of the Upper Violet Creek Provincial Park is to protect one of the major sources of water to the Mara Meadows Ecological Reserve.

Existing road crossings of the creek are deemed stable and existing recreational use of the trails crossing the creek have been allowed to continue. To this end, the secondary role of the Upper Violet Creek Provincial Park has been identified “to provide for continued recreational use of the cross country ski trails that cross through the area. These trails pre-exist the park and are well maintained by the local cross country ski club. The trails and the use of the trails pose little threat to park values.” (BC MoE, 2006, p. 1)

The Upper Violet Creek Provincial Park creates a unique situation for the Larch Hills recreation area. It is a long linear park operated under the jurisdiction of BC Provincial Parks (Ministry of Environment) contained within the wider crown recreational area of the Larch Hills Nordic trails that is operated under the jurisdiction of the Provincial Recreational Sites and Trails Office (Ministry of Tourism, Sport and the Arts). As well, status Forest Service Roads (FSR) under the jurisdiction of the Provincial Ministry of Forests and Range (MFR) run through the park in several locations. These FSRs double as tracked Nordic ski trails in the winter months. The Land Resource Management Planning process (LRMP – see following) addressed this with the following direction:

“Those portions of the Larch Hills cross country ski trails, that are included in the Upper Violet Creek Bog Complex, will be managed in the same manner as the trails outside the park; so effectively they will be managed as one trail system, under the same management plan, with the same organizations

that are involved in the management of the trails outside of the protected area, (MoF, user groups) also being involved in their management inside the protected area (i.e., in addition to BC Parks)."

(ILMB, 2001, p. 5-28)

Simply put – management of the Larch Hills Recreational Trail system is a multi-jurisdictional responsibility including MTSA, MoE, MFR, and the Stewardship groups. It requires a collaborative management approach.

Old Growth Management Areas (OGMAs)

Old Growth Management Areas (OGMA) are designated stands of old growth forest identified within an area to maintain a percentage of old growth biodiversity within the overall forest culture. Forestry companies must work within policy guidelines in order to retain this percentage. As a result, a trail falling within an OGMA is less likely to be affected by forestry and other licensed activity. Some provision for forestry road allowances are negotiable by forest harvest licensees, but require provincial approval and must be compensated by similar replacement of the forest base in another area.

The Larch Hills recreational trail system overlaps a large OGMA along its western edge. Trails in this area are notable for their older forest feel and for the relative lack of established roads and tracks. The area's longer purpose built non-motorized trails fall within this OGMA. (The Greenway, Treebeards Trail – see attached map.)

Interestingly, the Okanagan – Shuswap LRMP calls for proposed additional OGMA designations around cross country ski trails in the Larch Hills as a means to protecting the recreational value of the trails. Where trees are not considered to be of an "old age" the LRMP recommends a "recruitment area" of trees be established and later assumed into OGMA designations as they grow older. (ILMB, 2001, 5-42)

East Canoe Creek Community Watershed

The large OGMA located along the western flank of the Larch Hills recreational area overlaps the East Canoe Creek Community Watershed. The East Canoe Watershed provides a secondary source of water to the City of Salmon Arm. Tributaries flow into the Metford Dam pond and chlorine treatment facility. None of the area's trails, however, approach or cross these tributaries.

Prior to chlorine treatment, the municipality was concerned recreational trails in the Larch Hills might threaten water quality. Trails within the East Canoe watershed were removed from official maps with the formal designation of recreational trails under provincial authority in 1985. However, with the eventual introduction of chlorine treatment at the Metford Dam, these concerns were addressed, and Shuswap Outdoors re-established signature hiking and skiing trails along The Greenway. Connie Harris (2007) notes the Larch Hills Nordic Trail System was officially incorporated into the LRMP, and that during this time The Greenway and Cedar Circle trail was officially restored. (ILMB, 2001)

BC Parks and Forest and Range Practises Act

Legislation protecting wetlands and other ecosystems from activities such as recreational use fall under several different jurisdictions. For the Larch Hills recreation area, the Forest and Range Practises Act has recently introduced aggressive new legislation to enforce ecosystem protection on crown lands. These include criminal convictions and penalties of up to \$100,000 and one year in jail. These now compliment existing enforcement of

ecosystem protection within BC Parks legislated under the Parks Act (Ministry of Environment) and provide officers with similar tools of enforcement. All damage to protected ecosystems is illegal under existing legislation.

Section 3: A Diversity of Stakeholders

The following list of key stakeholders was identified for consultation purposes. It should be considered a required checklist for planning, and added to as necessary. Implementation of non-winter trail stewardship management plans will require further consultation and communication with representation from each of these groups.

The Environment

The environment was consistently named as a primary stakeholder (and least able to speak for itself). Existing laws, policies and guidelines, protected areas, reports, studies, stewardship and enforcement officers, active observation and reporting by the public, and future environmental assessments provide a voice for the area's diverse flora and fauna and the integrity of their habitat.

Larch Hills Nordic Society and Shuswap Outdoors!

LHNS and SO were identified as the main recreational stewardship organizations having invested significant resources annually into the Larch Hills creating the areas non-motorized trail character over the last thirty years.

Shuswap First Nations

The Larch Hills falls within the Shuswap First Nations tribal territory. Four local bands within the Shuswap Tribal Council hold local land interests in the area. The Splat-sin (Spallumcheen) Band offices and land interests are the closest in proximity to the Larch Hills recreational trail system. Discussions with the Splat-sin Lands and Waters department confirmed their commitment to protection of sensitive ecological areas like the Mara Meadows.

The Province of British Columbia Land Resource Ministries

Several land resource ministries hold direct jurisdictional authority over the Larch Hills trail system. The most directly involved include:

1. **The Recreational Sites and Trails Office (Ministry of Tourism, Sport, and the Arts)** – The Larch Hills Nordic trail system is managed under a memorandum of agreement through the MTSA Rec Sites and Trails Office in Revelstoke. Overlapping boundaries with the Okanagan mean communication is also maintained with the Rec Sites and Trails officer in Vernon.
2. **The Ministry of Forest and Range** – All Forest Service Roads are managed under MFR, as are forest timber harvest licenses, and enforcement of habitat protection on crown land. The district manager in Vernon must authorize any alterations to road access or the land base.
3. **The Ministry of Environment/BC Parks** – BC Parks is a function of the Ministry of Environment. The Larch Hills Nordic Society manages trails within the Upper Violet Creek Provincial Park under agreement with the Ministry of Environment within BC Park's North Okanagan District.

Local Governments

The Larch Hills straddle the boundary of two regional districts (The Columbia Shuswap Regional District and the North Thompson Regional District), and are within 30 minutes of three municipal districts (Salmon Arm, Sicamous, and Enderby.) The area holds important recreational, social, economic, and ecological value for each.

Forestry Harvest Licensees

The Larch Hills recreational trail system fall within the timber harvest licenses of Tolko, Federated Coop, and independent woodlot licenses held by Glen Ritchie and Curt Olsen.

Range, Mining, and Trapping

Cattle range, mineral claim, and trapping licenses are held in the Larch Hills. All license holders must be consulted should recreational trail plans potentially impact their interests. Cattle range tends to favour the eastern slopes of the area. There is a mineral claim south of Larch Lake surrounding Larch Hills Road. It encompasses the area around and south of Cec's Cabin. A trapping license was mentioned in local interviews but was not researched within the scope of this study.

Local Residents

Grandview Bench and Edgar Road residents live, work, and play in the Larch Hills. It is their home, and as such, affords close scrutiny when potential changes and impacts present themselves. Issues of road use, noise levels, and access restrictions are all concerns to local residents.

Recreational Users

Recreational use of the trail system includes both organized and independent use. Many users of the trail system do so without connection to identified user groups. Public consultation and communication is necessary. A review of existing clubs and organizations actively using the Larch Hills trails during non-winter months, AND actively organizing events and trail clean-up activities revealed the following list:

- 1. Larch Hills Nordic Society**
- 2. Shuswap Outdoors!**
- 3. The Shuswap Trail Alliance (Larch Hills Traverse)**
- 4. The Back Country Horsemen of BC – Shuswap Chapter**
- 5. The Back Country Horsemen of BC – North Okanagan Chapter**
- 6. EQ Trail Riders Association**
- 7. Salmon Arm Natures Nomads ATV Club**
- 8. Sicamous Quadders ATV Club**
- 9. S.O.R.E. Motorcycle Club**
- 10. Salmon Arm Fish and Game Club**
- 11. Wilderness Watch**

It is recognized this list, while reflecting the primary user organizations, is incomplete. Other organizations use the area and will need to be added to this list as they become known.

Harvesting

Berry harvesting, mushroom picking, hunting, and box wood collecting all attract frequent visits to the Larch Hills, especially in the fall. The recreational trail system provides access to the area for these purposes.

Section 4: Summary of Summer Study Results

The following summary reflects feedback from the survey results, interviews, trail registers, and parking lot tallies. It focuses on core questions relevant to establishing the non-winter management plan framework and recommendations. A presentation of raw survey and register results is documented separately and available on request. Further analysis of the collected data is encouraged.

Consistent Summer Use

Register counts and custodian tallies show consistent daily use throughout the summer and fall. 636 users signed in at trail registers over 71 days between July and September. Custodian tallies counted 364 users at the Main Chalet Parking lot over 26 days between June and September. These figures represent a portion of overall users to the area. Variable monitoring at the parking lot, and the gaps inherent in the voluntary trail registers, mean these counts provide only a rough estimate of the actual use of trails in the area. Some days, for example, the custodian tallies only counted vehicles in the parking lot and not party numbers or type of use with each.

Comparison of custodian counts with trail registers on several peak days suggested an average sign in rate of 40% at the register boxes. Using this as a rough guide to project actual use suggests an estimated user count of 1600 people over two months is not unreasonable, and is more likely higher.

The following charts reflect the results of these tallies by identified user group.

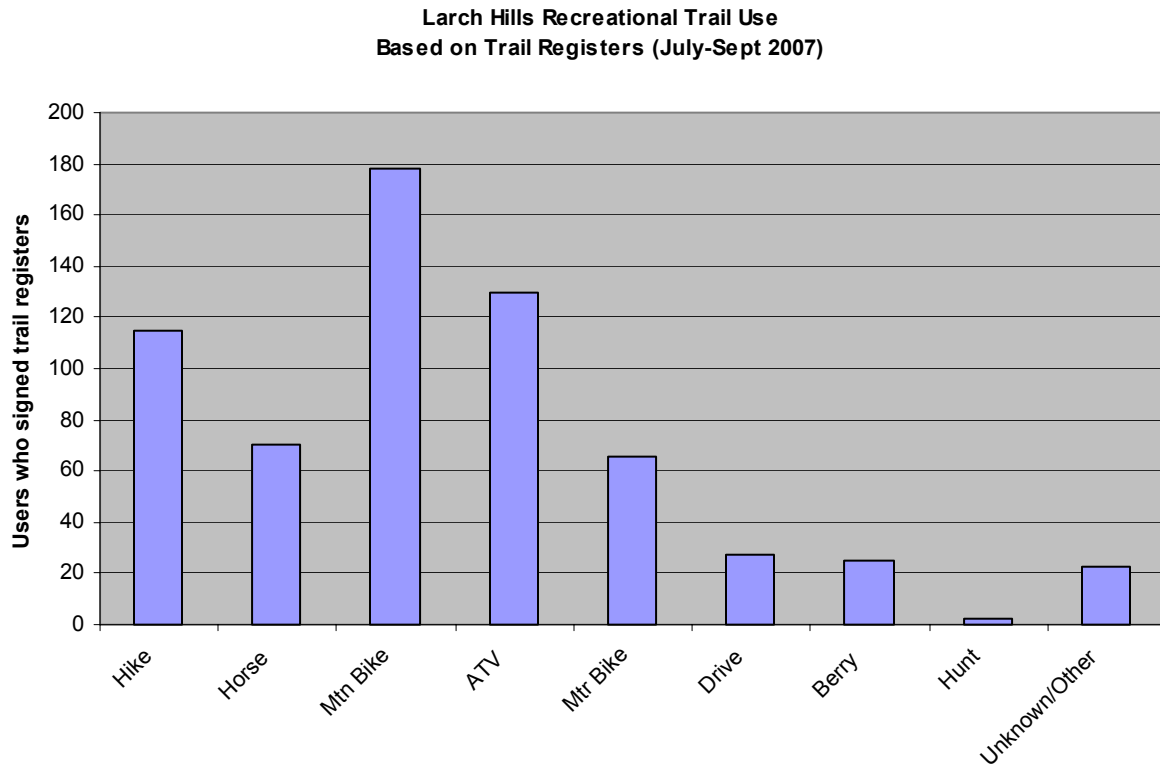


Figure 2. Total user count from trail registers by type of use. (636 users over 71 days)

Larch Hills Trail Use (Custodian Count over 26 days) July-Aug 2007

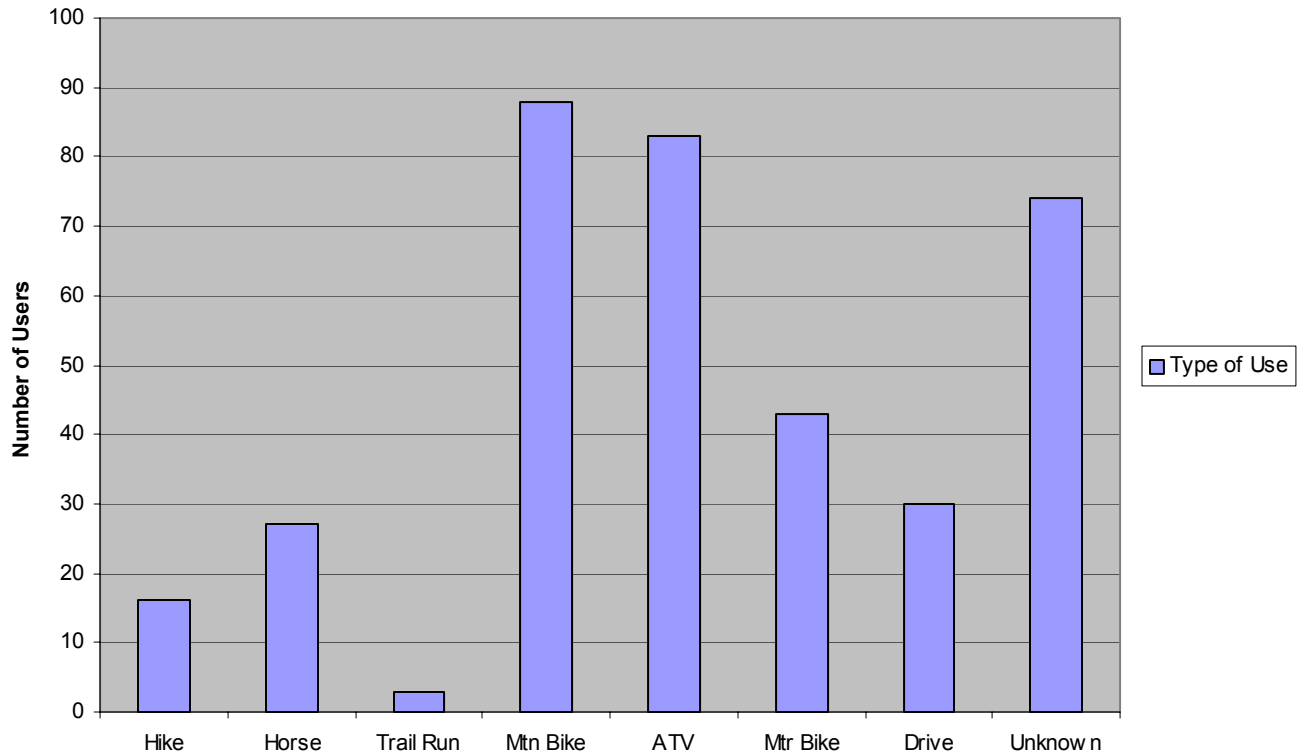


Figure 3. Total user count from custodian monitor of main parking lot. (364 users over 26 days)

Note the variance in motorized user counts in the register tallies with those in the custodian tallies. Also note the dominance of mountain biking in both as a consistently frequent activity in the area.

Further consideration of the variance between registers and Custodian tallies on peak weekends suggests hikers and mountain bikers were more likely on average to sign in at the register boxes. (62%) Whereas motorized users were far less likely. (32%) This is reflected in the following chart from one peak weekend.

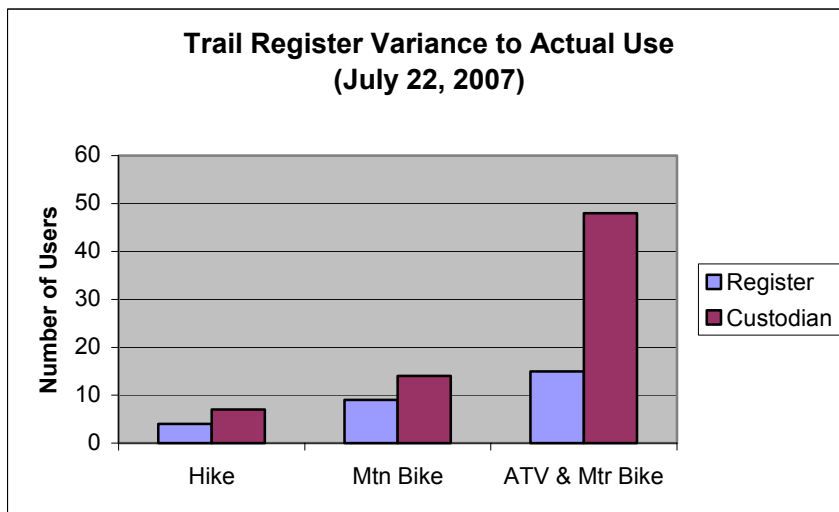


Figure 4. Variance between Trail Register tallies and Custodian tallies on a peak weekend in July.

Using these figures to project a rough estimate of use over two months suggests a more accurate picture of balance between motorized and non-motorized use in the area as follows (see right hand bars).

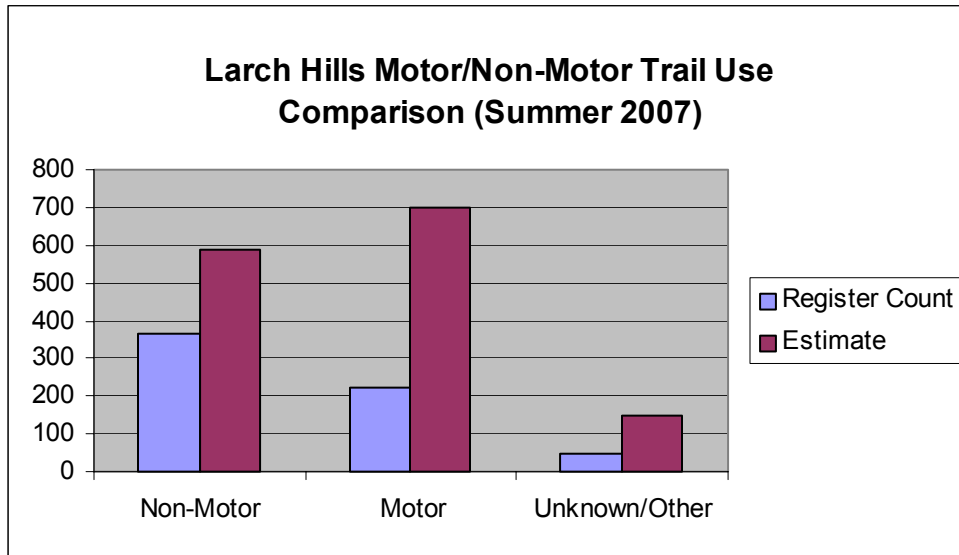


Figure 5. Estimate of use over 71 days (July and August 2007)

Interestingly, this estimate reflects the custodian’s perception of balance over a two-month period as demonstrated in the following chart.

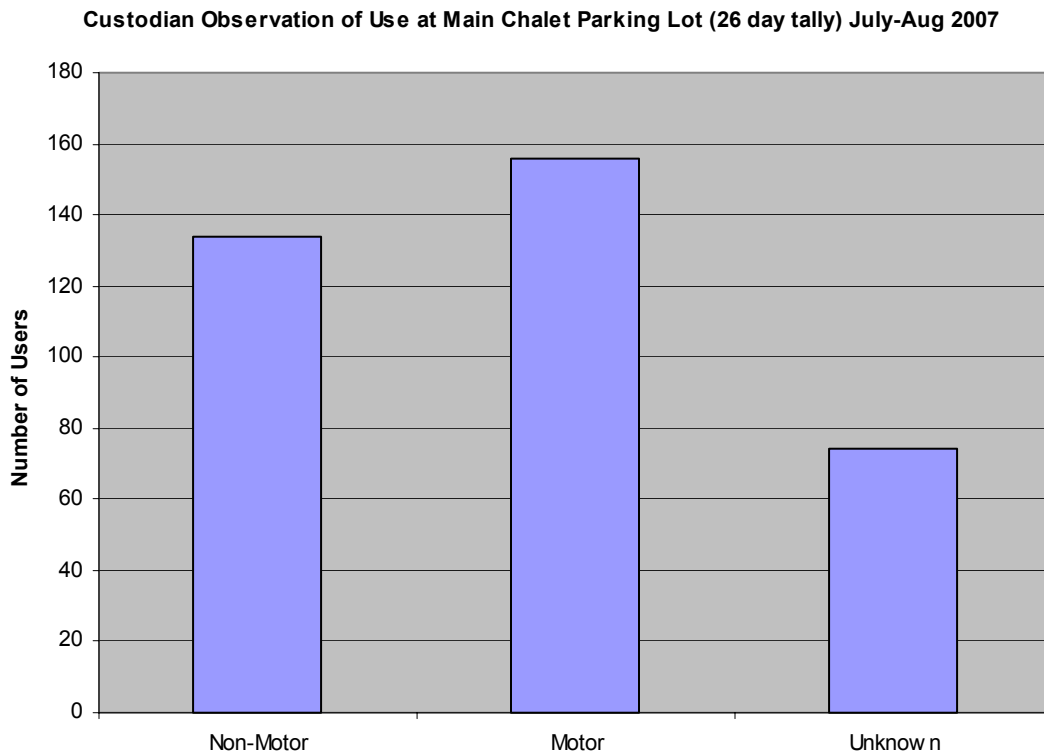


Figure 6. Balance of non-motorized and motorized use from custodian monitor at Main Parking lot.

A Diversity of Users

While statistical accuracy is limited, register counts and custodian tallies clearly show a diversity of recreational trail use in the Larch Hills trail system during the non-winter months. Mountain biking, hiking, and ATV use show consistent daily numbers throughout the summer, followed by equestrian and motorcycle recreational trail use.

A discrepancy in the distribution of recreational use was noted between the trail registers and custodian monitor. Based on register counts and the custodian monitor, mountain biking is the most common recreational trail use of the Larch Hills trail system during non-winter months. However, according to register counts, hiking was the second most common recreational trail activity, but showed up as the lowest use in the custodian monitor. It would seem users arriving at the parking lot to hike were more likely to quickly exit their vehicles, register, and begin walking. Whereas cyclists and motorized users were more likely to take longer before departing from the parking lot and were therefore more likely to be seen by the onsite custodians. The “unknown” count from custodian tallies most likely accounts for this difference. These numbers were based on sight counts and did not include in person communication with the users.

Motorized recreational trail use is rising. Long time users of the Larch Hills confirmed this. Staging activity in the Chalet parking lot was said to be more consistent over previous years. This would match sales trends for Off Road vehicles in British Columbia. (S. Rutherford, 2004)

Despite the significant increase in off-road vehicle use, response to the Larch Hills survey shows dominance in hiking and mountain bike use of area trails, with nature viewing following in third place of popularity. It is reasonable to assume other uses would show higher under a controlled survey. As discussed earlier, the voluntary nature of the survey carries inherent biases. All users were encouraged to complete the survey, however, so the results will tend to reflect the opinions of those invested in managing the area.

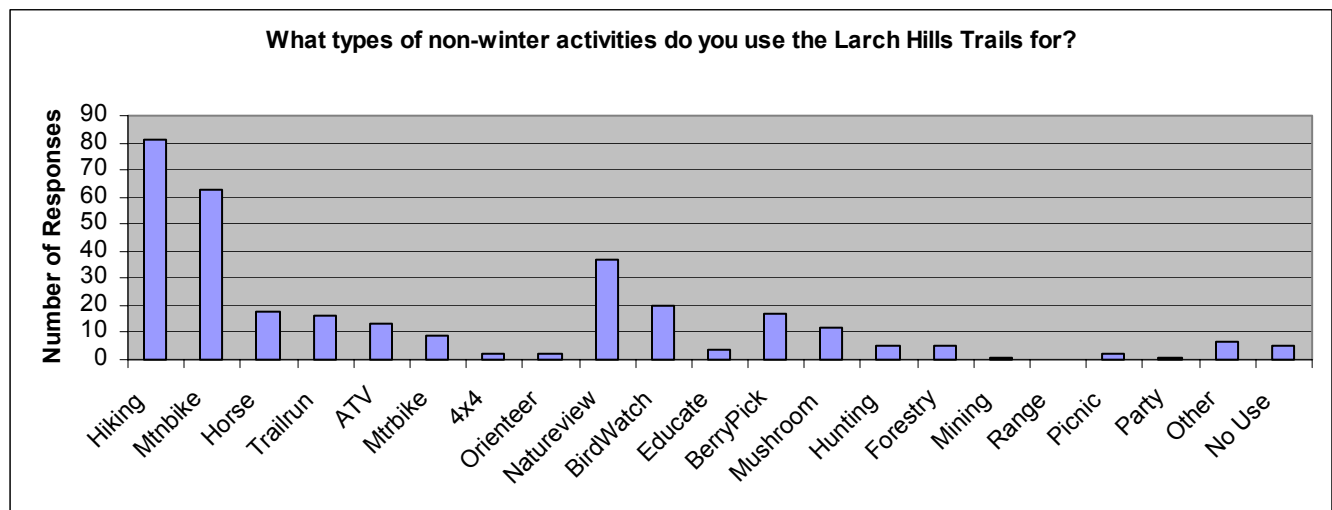


Figure 7. Survey distribution based on use of the Larch Hills trail system.

Management Priorities: Environment at Top

When asked to rate priorities for non-winter management of the Larch Hills trails, without exception, all users ranked protection of environment at the top of the list. Preventing damage to riparian areas, protecting wildlife, and preventing trail damage through seasonal closures and limited use where appropriate were all ranked

significantly. Providing signs and maps, maintaining natural walking trails, removing dangerous trees, safety information, and enforcement all ranked in the top margin.

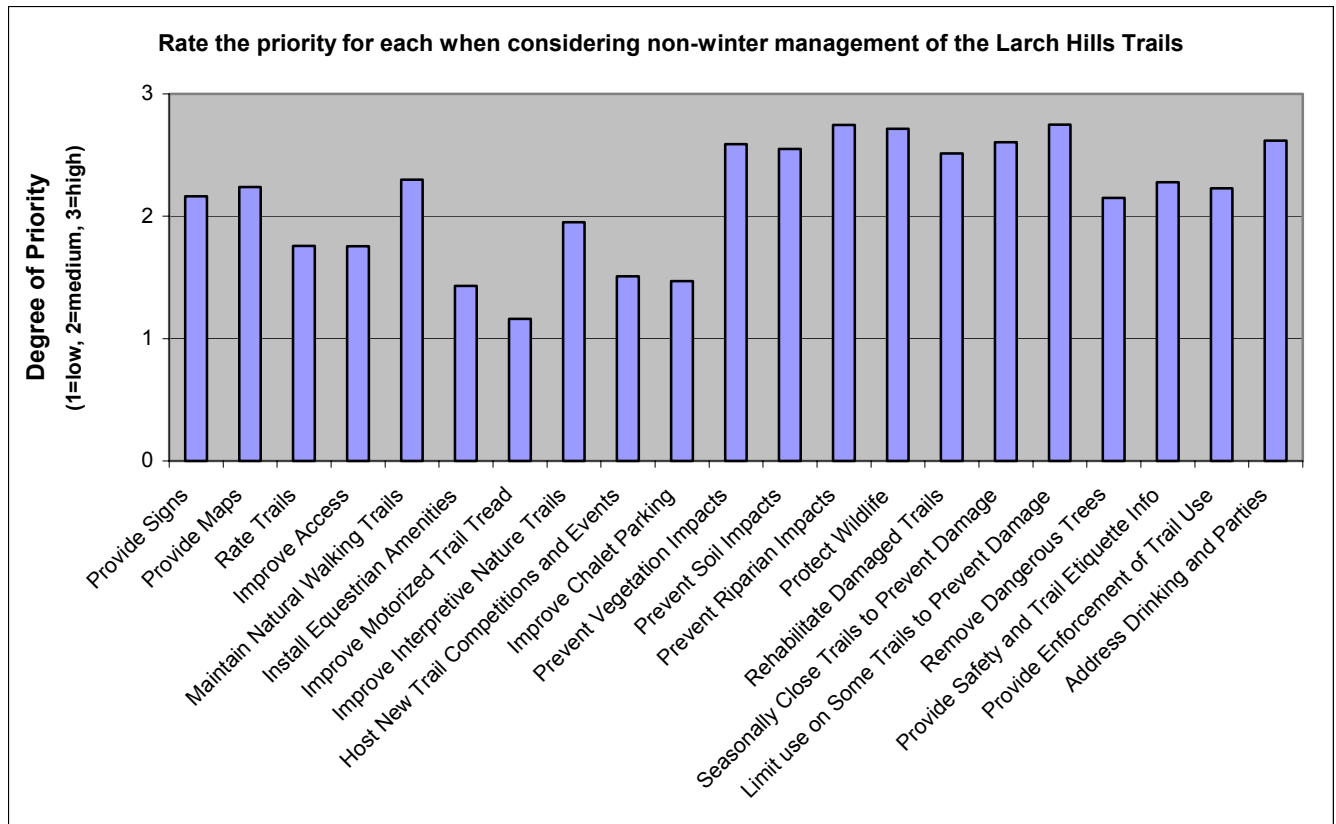


Figure 8. Non-winter management priorities of the Larch Hills trail system.

Interestingly, when asked to reflect on several specific amenity upgrades, overall response was less encouraging.

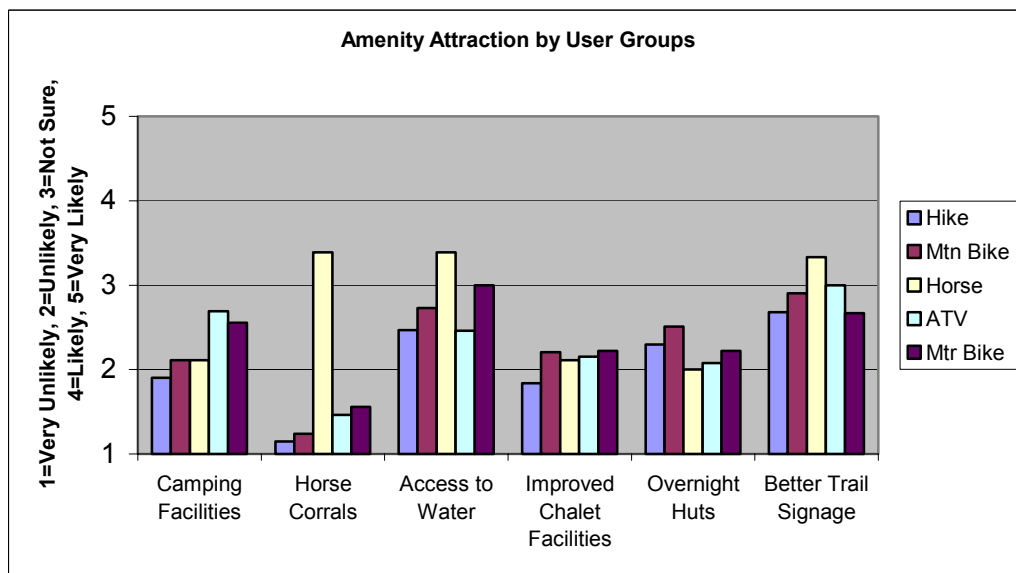


Figure 9. Non-winter management priorities of the Larch Hills trail system.

Differing views on Compatibility

When asked to describe multi-use compatibility of different types of use on the Larch Hills trails, a notable variance in perception is seen between motorized and non-motorized users. Overall, the majority of survey respondents expressed uncertain to low ratings of compatibility for motorized trail use. Given the largest number of survey responses came from non-motorized trail users, this indicates hiking, cycling and equestrian users are concerned about having to share trails with motorized users.

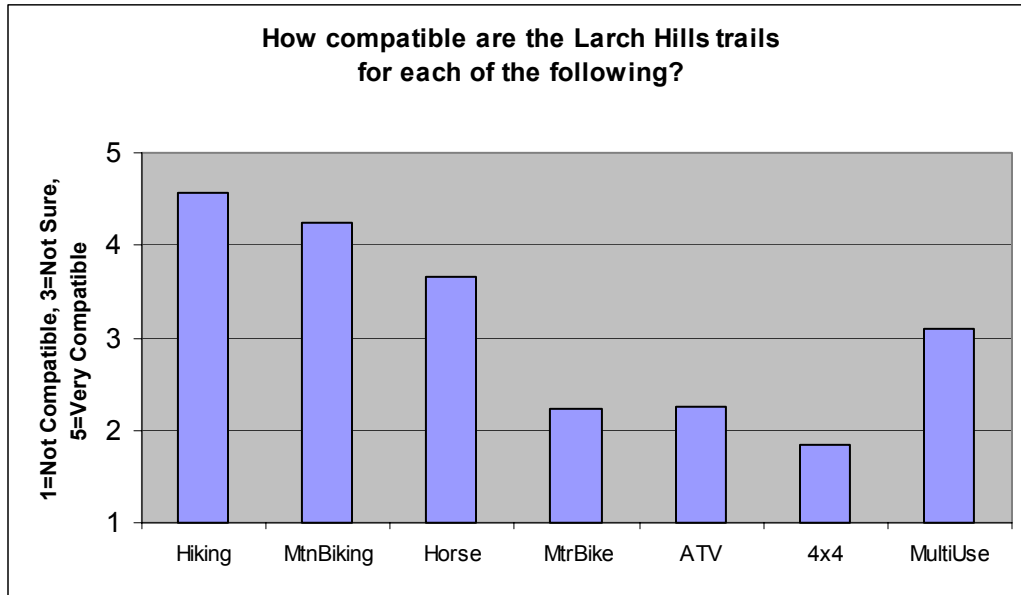


Figure 10. Survey rating of trail compatibility according to type of use.

The split in perceived compatibility of trail use is confirmed when survey responses are separated according to user group. Non-motorized users all rated low compatibility with motorized forms of trail use. Motorized users, on the other hand, perceived co-use with non-motorized users as generally compatible.

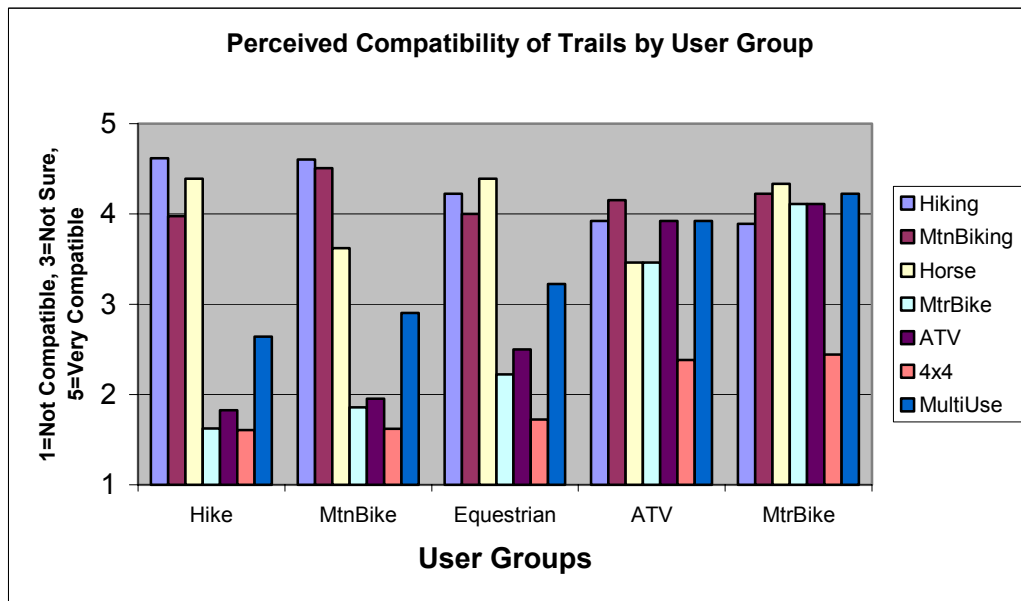


Figure 11. Perceived compatibility of trails by user group.

This information is important in the context of co-use planning for non-winter use of the Larch Hills trails. Non-motorized trail users clearly experience compromised value when encountering motorized users. Given the historic character of trail use in the area, and the significant investment put into construction and maintenance of purpose built trails for non-motorized use (e.g. The Greenway, Treebeards Trail), consideration for designating limited use routes in the area seem warranted. Establishing experience quality measures will help to identify, monitor, and ensure the trail systems value for all users.

It should be noted, the advisory affirmed the desire to honour the historic non-motorized use of the area. Identifying specialized routes for different types of travel within the system was recommended, recognizing this did not mean closure to motorized users.

Interestingly, all users rated trail use with 4x4 vehicles as not compatible. On statures Forest Service Roads, use by all vehicles is required. It is recommended 4x4 vehicle routes in the Larch Hills be defined by these FSRoads.

Challenges for Non-Winter Trail Use

The main challenges identified for non-winter trail use in the Larch Hills included negative impacts to habitat, vandalism, speed on trails, and damage to trails and roads. Many respondents reflected on the damage done to trails west of the North Hub (Greenways and White Pine Walk) rendering these trails impassable in the non-winter months. A summary and discussion of these key challenges for trail management is considered in section 5.

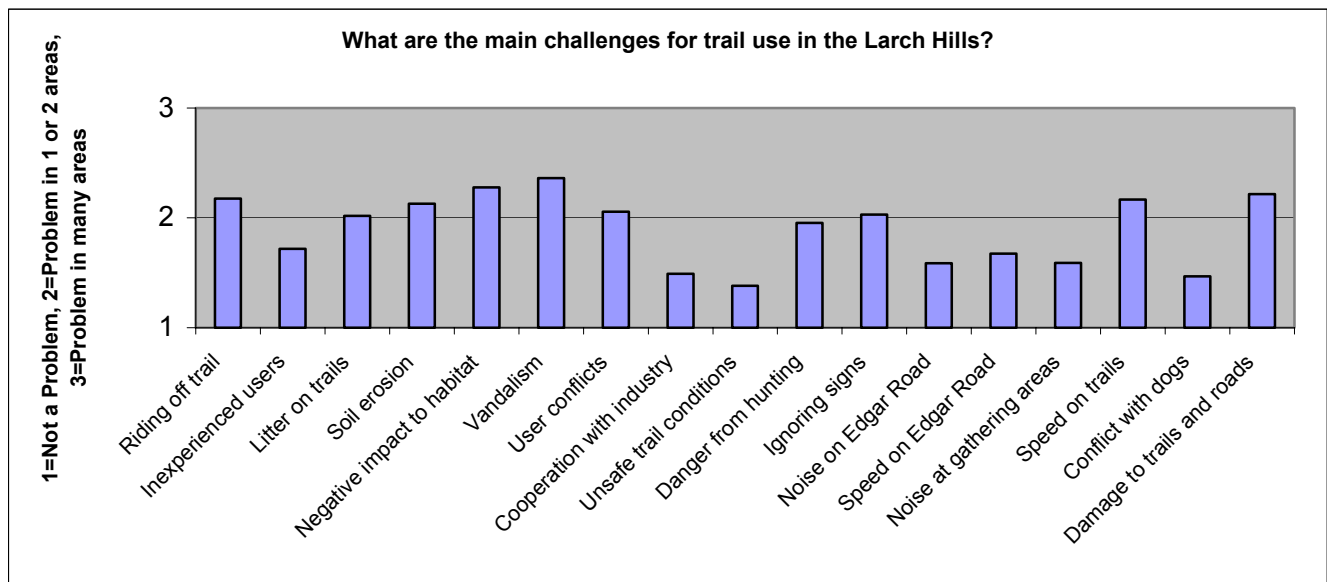


Figure 12. Main challenges for trail use in the Larch Hills.

Safety and Trail Design Suitability

While survey responses rated unsafe trail conditions as not a problem, several responses drew attention to issues of trail design in the Larch Hills that would not necessarily be noticed by all trail users.

“As a former x-country motorcycle racer, I feel the Larch Hills trails are too open (not technical enough) to keep speeds down to a safe level.”

(Larch Hills Summer Trail Survey, 2007)

The above comment reflects the fact that Larch Hills trails utilize roads and tracks originally designed for forestry transportation and lend themselves to excessive speed on motorized off road vehicles. The same is true of mountain bike trails. Well designed, however, a trail can slow user speeds while increasing enjoyment. In the Larch Hills, user safety education, design enhancements, and cautionary signage will be required to ensure safe speeds are maintained on motorized trails. Any new trail work should look to best practise standards for purpose built trails that mitigate safety issues.

Use of Trails with Family and Friends

When asked who users spend the most time with on the trails, the majority of respondents indicated family and friends. A good number expressed occasional use by themselves, but the area is clearly seen as a place where families can enjoy the natural world together on the trails. Interviews suggest a distinction between the perceived family-friendly environs of the Larch Hills trail system and other more technical trails in the region. This is especially true for ATV and motorcycle users. (meeting, D. Guenter, Dec. 17, 2007) This is a quality valued by all user groups of the Larch Hills trails, and has implications for the style of trail use encouraged in the area. (i.e. easier, family accessible, safe vs. more difficult technical)

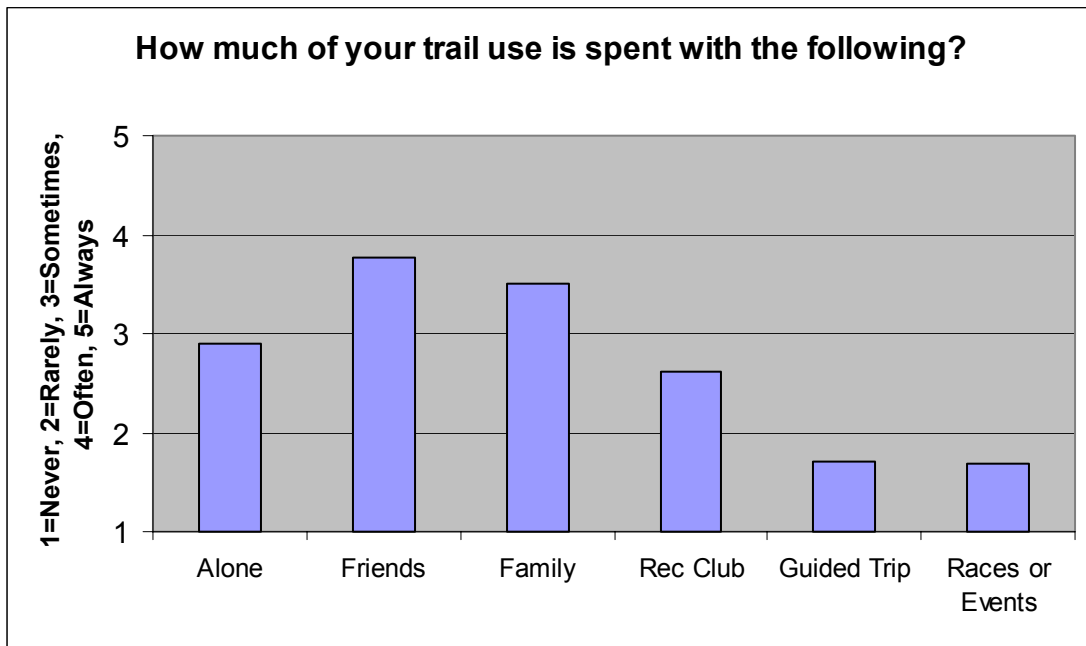


Figure 13. Who people spend time with on the Larch Hills trails.

Looking for Natural, Quiet Trails

The type of trail experience the majority of respondents were looking for can best be summarized as “mixed, natural, and quiet.” This was reflected in survey responses and written comments. Most trail users indicated a desire for natural environments that would provide solitude and quiet. A variety of trail challenge was sought.

Only a few respondents indicated a desire to engage in route finding that required navigational tools like a compass. This suggests good signage and information maps and guides will continue to be as valued in the summer months as in the winter.

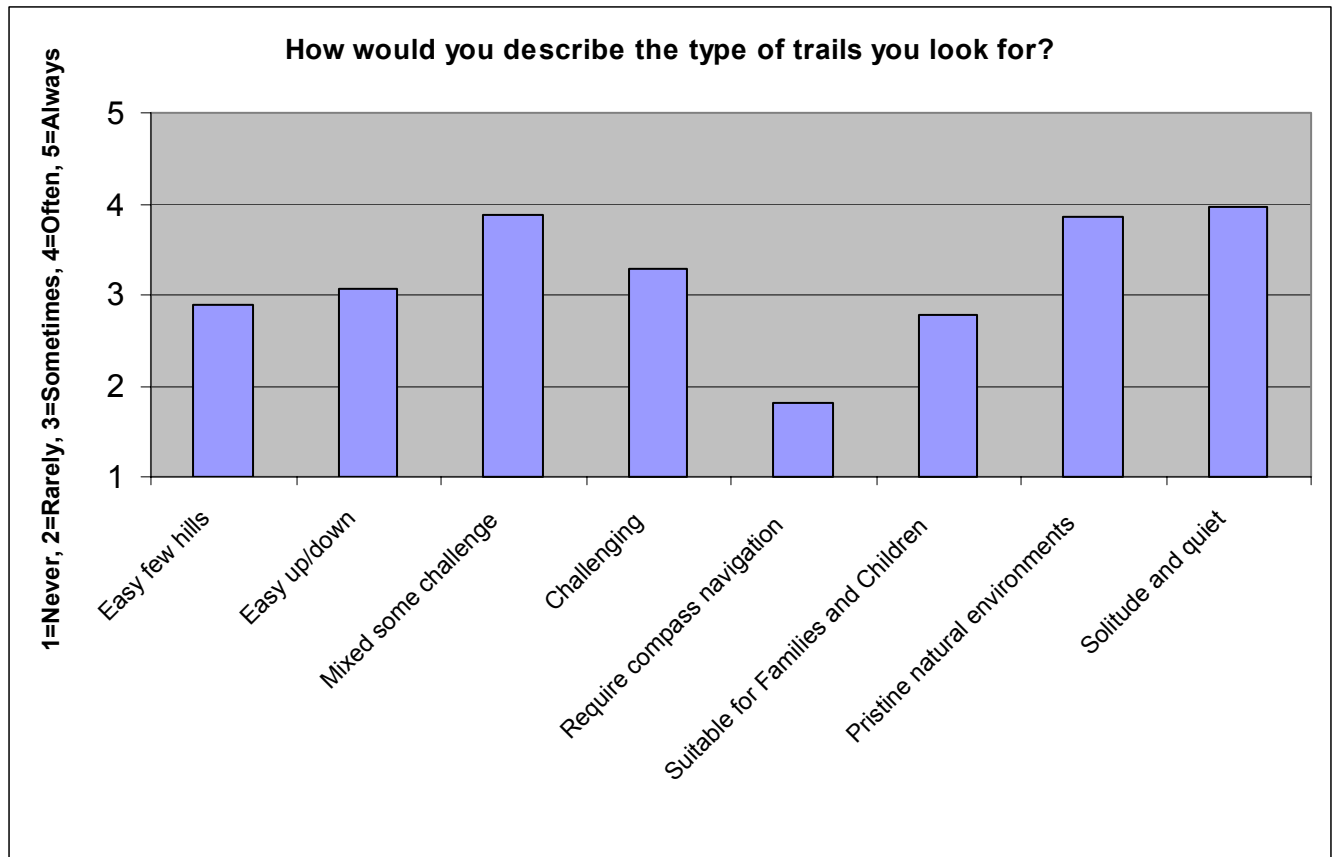


Figure 14. Descriptions of the type of trails people look for.

Priority on touring over technical

Written comments in the surveys suggest the type of trail use people are looking to the Larch Hills for are best described as non-technical touring trails for a variety of users. This was true of both motorized and non-motorized user groups. The following comment reflects this from the perspective of a motorcycle trail rider:

“We trail ride our motorcycles 6 to 10 times per month from March to November all around the area. . We are trail riders (low impact), not motocross riders. Our rides are usually two to five hours in length and include a stop for lunch or snacks. We spend time at Larch Hills in the fall and spring improving trails that we use including brushing and draining wet spots.”

(Larch Hills Summer Trail Survey, 2007)

Frequency of Trail Use

When asked how often people use the Larch Hills trails in the non-winter months, 54% indicated occasionally and less than monthly. 29% indicated regularly each month, and 11% were out weekly. When asked how often people participated in trail based recreational activities, however, respondent frequency jumps to 74% using trails for recreation 5 or more times a month. Is it possible, with better non-winter trail signage, properly designated trail routes, and promotional tools like maps and guide information the Larch Hills Trails could see increased and consistent use by good trail users willing to support maintenance throughout the summer?

How frequently do you currently use the Larch Hills Trails during non-winter months?

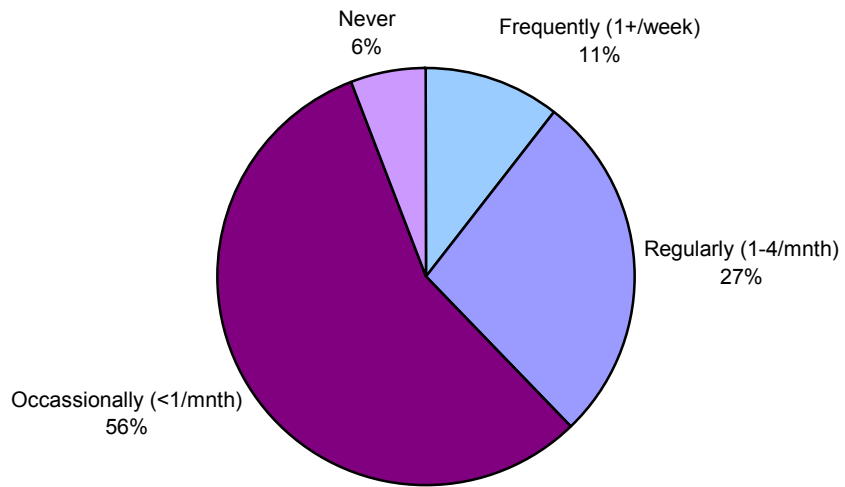


Figure 15. Frequency of non-winter trail use in the Larch Hills.

How often do you participate in some type of trail based recreational activity?

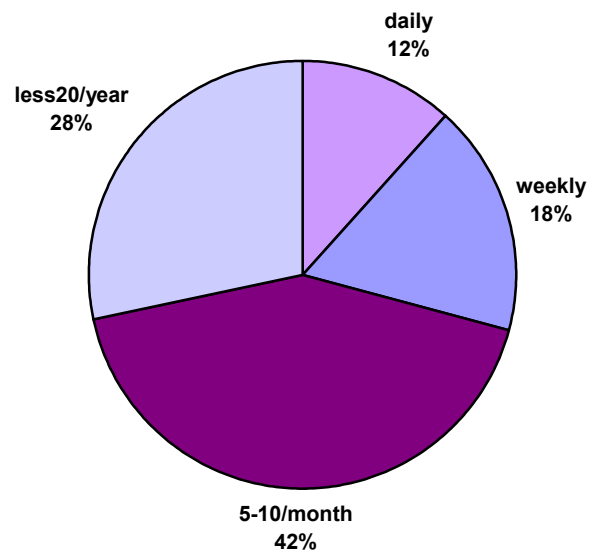


Figure 16. Frequency of non-winter trail activity in general.

Consistent Interest and Enjoyment

Throughout the register responses, summer trail users left consistently positive comments on their experience regardless of user type. In the survey returns, 90% said they were Likely or Very Likely to return, and 86% said they were equally likely to recommend the Larch Hills trail system to others. This would suggest now is a very good time to look ahead and plan for sustainable recreational trail use in the area.

“Please hang on to this area. Could be mountain bike heaven if snow shoe trails were cleaned into single track bike trails.”

“Great trails - we will be back.”

(Larch Hills Summer Trail Survey, 2007)

Section 5: Top Challenges

The following were identified as key challenges through the course of the study and are summarized here for stewardship planning purposes. The recommendations that follow grow from the study results and priorities based on these challenges.

Ecological Damage and Mud Bogging

As noted, all user groups identified environmental protection as a top priority. During the course of the study feedback was received from trail users that negative damage to riparian areas, especially Frodo's Bog and Larch Lake, were increasing. Inspection, reporting, and subsequent site visits with provincial MTSA Recreational Sites and Trails and Ministry of Environment officials confirmed the need for immediate action to mitigate damage. Recreational mud bogging through Frodo's bog had created a well-worn road and circular play pit. Signs of experimental access were appearing on Bilbo's bog. And access into Larch Lake via the Log Roller winter access had created unprecedented damage in the riparian zone surrounding the lake.

Damage to critical ecological habitats including riparian areas is a criminal offence in British Columbia. Use of motorized vehicles in the connected bogs, lakes and streams of the Larch Hills fall within these critical ecological habitats. Stopping the use of motorized vehicles for mud bogging (the recreational use of vehicles in muddy terrain) quickly raised to the top of the priority list. It should be stressed, the first call for action came from motorized recreational users in the Larch Hills concerned about the damage they were encountering in these important ecological habitats.

Advisory and public discussion, along with direction from provincial land resource officers, point to the use of signs, barriers, and education of all users as the best front line for mitigation. In the Larch Hills none of these have been employed as a concerted strategy. Surveillance and enforcement are also options, but are seen as second step strategies where the first tools have been employed but illegal damage continues.

A multi-jurisdictional response has been initiated with Ministry of Environment, MTSA, and the Ministry of Forest and Range. BC Park boundary signs were erected this fall. And planning will take place this winter in preparation for the placement of non-winter barriers and signage to block access to the bogs and damaged trail through riparian areas. As well, educational signs and information will be made available and communicated through the

advisory organizations. The sites will be monitored in 2008 and where damage continues, provincial enforcement through surveillance will be initiated.

As well, the BC Conservation Corps funding through the Ministry of Environment has been presented as an option to develop a rehabilitation and conservation plan, and implement restoration of riparian areas and trails where possible. (R. Gunoff, presentation, Dec 17, 2007)

Displaced mud bogging into other areas of the region with the placement of barriers in the Larch Hills was raised. Survey response regarding the creation of a dedicated area for mud bog use as a strategy in countering damage in other areas received mixed review. The response does suggest this strategy warrants further exploration, especially in dialogue with local mud bog advocates. However, feedback from other regions of the province would suggest limited success with this strategy. In the South Okanagan, for example, any suggested location of a dedicated mud bog play area has been met with local resistance. (R. Gunoff, discussion, Dec. 17, 2007)

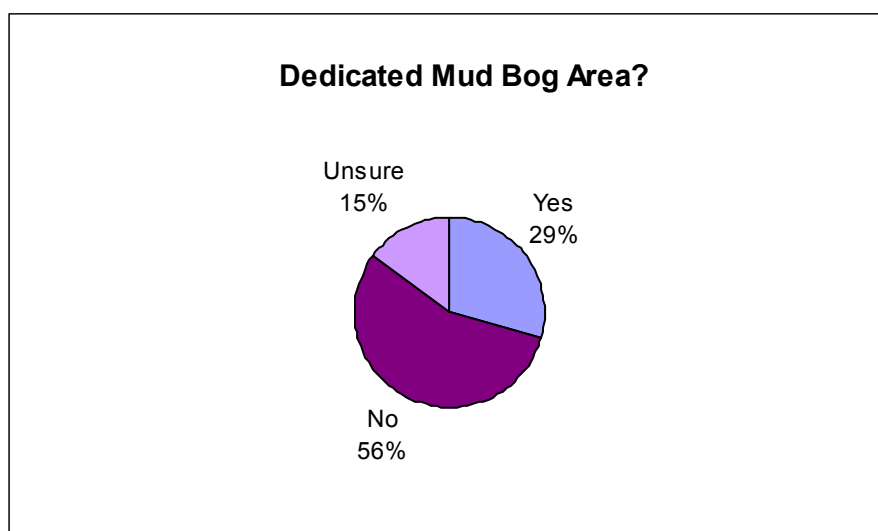


Figure 17. Response to the idea of a dedicated mud bog area to redirect local activity.

Trail tread sustainability

Trails need to be able to withstand the intended use. Design, location, and construction all contribute to long-term sustainability. Well designed and located, a trail requires less maintenance and does not impact the surrounding landscape. In many areas of the Larch Hills, existing tracks are well surfaced and suitable for mixed use including use by off road vehicles. In other areas, however, especially areas surrounding the North Hub and within the western Old Growth Management Area, trail tread is less resilient due to the moist, mossy forest floor and deep layers of duff. Mineral soil surfaces are not achievable. Erosion and water flooding from motorized impacts are heightened. Tread suitability must be taken into account when allocating appropriate trail use designations.

Safety – Collision, Fire, Tree Fall

Management and education of users to mitigate risk of collisions due to excessive speed and blind corners, forest fire, and potential injury from tree fall should be included in a non-winter management plan.

As mentioned earlier, many of the existing trails invite excessive speed due to their open, straight structure. Purpose built recreational trails take advantage of meandering design, chokes, obstacles, turns, and natural

anchors to curb speed, increase enjoyment, and create trails more suitable for mixed use. Employment of these techniques, along with a sign program, will help to reduce safety concerns due to excessive speed and potential user collision.

Forest fire concern was raised as a key issue. The ability to monitor and freely access the Larch Hills was deemed by local residents as an important requirement for the viability of maintaining the recreational trails through the summer. Any obstruction to access (e.g. gates at the main parking lot) is perceived as an increased risk to fires being able to spread out of control without early suppression. Local residents are ready to provide first response to fire starts in the area.

Dangerous tree fall, especially in high use areas such as the Chalet and surrounding facilities, was identified as a concern. Ministry of Environment requires annual inspection of intensive use sites in the spring and fall, and MTSA Recreational Sites and Trails will respond with work crews where significant stands of trees warrant danger removal. Educational materials and signage should warn users to be prepared and aware of potential tree fall along trails during high winds and storms.

Access (License Holders, Gates)

Maintaining open access to the Larch Hills crown lands via stashed Forest Service Roads was raised as an issue. License holders (Forestry, Woodlots, Range) and local residents expressed concern when gates were placed this summer at the entrance to the Larch Hills main Chalet parking area. A letter of complaint was received by the Vernon Ministry of Forest and Range offices and forwarded to the Recreational Sites and Trails officer. Concerns regarding obstruction to industry, license holders, safety, and fire hazard were cited.

Research into the reason for gate location at the main parking lot revealed Larch Hills Nordic Society members working on the new custodian facilities made the placement. The gates were available and placement by the road in anticipation of possible need during winter months seemed appropriate. (Larch Hills Nordic Society has authorization to close access to the Larch Hills Forest Service Road for the duration of the winter ski season.) Obstruction of non-winter interests was unintentional, but the reaction from local residents demonstrated the need for a coordinated, communicated, and authorized approach to management of the recreational trail system.

Conversation with John Glaspie, MTSA Recreation Officer in Vernon (phone, Aug. 14, 2007), confirmed no access control point on a Forest Service Road can be authorized except directly by the Regional District Forest Manager. The Provincial Ministry of Forest and Range (MFR) is very hesitant to install control access points due to the precedent of risk and conflict they create. It is recommended the Larch Hills Nordic Society remove the gates currently stored by the main Chalet Parking lot entrance during the non-winter.

(Note: Where illegal access into sensitive ecological habitat is occurring, barriers are allowed and desired. This is discussed above.)

Noise

The impact of noise from recreational trail use was raised as a concern affecting both the enjoyment of other trail users and local residents. In particular, two areas of significant concern were identified: a) increased noise experienced by Edgar Road residents from ATV access and staging on the Rosemond Lake Forest Service Road, and b) increased noise at intensive gathering areas, especially the main Chalet parking lot.

Edgar Road residents identified a notable increase in staged ATV parties using the Rosemond Lake Forest Service Road as a starting point for longer circle tours linking the Moon Walk, Clearcut Connection, Summit, Caribou Memory, Sky Trail, and Larch Hills Road. From an ATV touring point of view, this circuit provides an exceptional outing. As well, a trip down to Rosemond Lake also warrants exceptional views and a fun ride. However, for local residents, parking, staging, warm-up and departure/arrivals equal a stressful increase in noise. The proximity of the Forest Service Road is directly along front lawns and driveways. A request to the MTSA Recreational Sites and Trails officer to consider possible strategies related to the Rosemond Lake FSR ATV use has been made. It is included, by request of local residents, in recommendations under this report.

A similar concern was raised in response to increase use of the main Larch Hills Chalet Parking lot. Noise from ATVs and motorcycles staging at the main parking lot were frequently stressfully high. However, it was found where the custodian on site spoke with groups and requested engines be left off until departure, and idled when entering or exiting the wider Chalet site, noise levels dropped dramatically. One of the biggest sources of increased noise came from individuals riding around the Chalet site while waiting for others in their party to be ready. (Sally Fisher, various interviews, summer 2007) In all cases, people were willing to accommodate requests to turn off engines and throttle down when entering and exiting the parking lot. This suggests a good communications strategy, including signs and user education, can address this concern.

Idle-Only Zones

Enquiry into other mixed use motorized areas in the province revealed the use of “idle only” zones in gathering and staging areas worked well. Experience from equestrian trail rides in other areas of the Province suggested noise levels were very tolerable where motorized groups implemented idle-only policies, and turned engines off when parked. (L. Lenglet, discussions, Dec 11, 2007)

Implementation of idle only and engine off zones surrounding all gathering areas in the Larch Hills is proposed. As well, monitor of noise impacts on the overall experience quality of trail users has also been recommended as a measure for monitoring the intended stewardship priorities and multi-use recreational goals for the trail system.

Vandalism and Bush Parties

Vandalism and damage to recreational facilities was one of the motivating factors behind the Larch Hills Nordic Society's initiation of the non-winter trail management process. Prior to moving the Chalet to its current location and the introduction of on-site custodians and permanent lighting in the parking lot, damage to the Chalet was an ongoing concern through the non-winter months. Damage from late night bush parties were a particular concern. As well, damage to other structures including Cec's cabin have been an ongoing source of frustration. Presently, all of the warming shelters that once dotted the trail system have been burned to the ground during the non-winter season.

Interestingly, the issue of vandalism during the non-winter months of trail access was echoed as a primary concern during the February co-use meeting in 2007. Snowmobile clubs revealed destruction to signs, washroom facilities, and cabins was an ongoing concern costing hundreds of dollars and hours in clean up each season. Local ATV club members expressed shared concern and support for efforts to monitor and mitigate these actions. (Meeting, Feb. 20, 2007)

Through the summer of 2007, vandalism of the Chalet and Cec's cabin seemed to be kept in check, most likely due to the new presence of a custodian (and the custodian's big dog!). Late night traffic was experienced on several occasions, including dangerous use at high speeds of Forest Service Roads accessed through the main parking lot. However, the presence of bush parties at the Chalet site appears to have been minimized. Some evidence of campfires in front of Cec's Cabin is evident. The custodian's also suggested gatherings at the start of the Canine trails may be increasing. (S. Fisher, P. Hickson, various, summer/fall 2007)

Non-Motorized History

By far, the largest number of written comments received through the 2007 non-winter trail use survey were related to concern that motorized trail use in the Larch Hills would erode the over 30 year investment of time, money, resources, and leadership in creating dedicated trails for skiing and hiking in the area. Despite this concern, a non-winter management plan has never been developed for the area. The recreation management agreement with Larch Hills Nordic Society only covers winter trail use.

As discussed, the area has also seen historic motorized access for industrial and recreational purposes, including hunting and berry gathering in the fall. Status Forest Service Roads make up the main artery routes for the areas trail system, and most of the trails utilize old skid tracks from earlier logging activity. Recreational zoning of the area under the Land Resource Management Planning process has identified the area as a Shared Summer Use recreational resource management zone. (ILMB, 2001, p. REC 4-10)

The effort to work collaboratively as user groups is seen as the best way to manage and sustain existing trails for hiking, cycling and equestrian users within a multi-use environment. The advisory committee partners all agree that recognition of the non-motorized trail history in the Larch Hills is an important priority for stewardship management. (Advisory meeting, Dec 17, 2007) Upholding the non-motorized character and opportunities in the area within a multi-use framework becomes the challenge and role of a managing advisory. It depends on a commitment from all user groups to work within the advisory committee. It will also require the establishment of agreed on quality measures that can be monitored.

Overlapping Interest in "Skinny" Trails

One challenge of compatibility that will require further discussion, strategic planning, and agreement is the overlapping interest for winding single track natural surface trails by non-motorized users and motorcyclists. Trails west of the North Hub, including The Greenway, were built for hiking and skiing. With the recent increase in bush riding, local motorcyclists have found and begun to use these trails. "We like skinny winding trails. . ." (Custodian Records, 2007) was a common comment from motorcycle trail users in the summer trail registers and surveys.

A discussion between user groups has begun to address this issue. (See proposed designated trail use in the following section of this report.) Further discussion will be required with local motorcycle users regarding appropriate management on these trails.

Experience Zones and Limited Regional Non-Motorized Trail Networks

Added to the concern about preserving non-motorized recreational trail experiences in the Larch Hills is the regional observation that few areas in the Shuswap have been designated as true non-motorized four season

recreation areas. On a percentage basis applied to the regional crown land base, most areas are open to motorized recreational access. Few areas offer true non-motorized trail systems.

One approach that may warrant further exploration regionally is the idea of designated “experience zones.” The Santa Clara River Reserve in Southern Utah adopted this approach to address increased development pressures from the nearby city of St. George, creating a diverse management plan for shared trail use. (P. Webber, 2007) Each experience zone is based on a distinct set of rules and regulations based on a defined trail experience. It helps to address the acknowledgement that no single trail experience fits all users, nor does the ecological integrity of an area fit all types of trail use. A similar zoning approach was developed in the Valemount area of BC. (ILMB, 2005) **It is recommended this “experience zone” approach be given further consideration when looking at regional multi-use trail management.** (see Recommendation 4.25)

Need for Coordination of User Groups and Authorization

It is clear from the results of the summer study and inventory of trails and use that multiple user groups are recognizing the gap in organized management and maintenance. These groups – both formally and informally – have organized trail clearing and maintenance outings in the area. Some groups have even flagged and cleared new trail sections to skirt damaged areas (Afterthought, Lidstone Connection). Except for joint work conducted by the Larch Hills Nordic Society and Shuswap Outdoors, and the new trail connections underway by the Shuswap Trail Alliance, none of the other trail activities have been either coordinated or authorized.

The importance of agreeing to coordinate all trail works from this point forward is critical. With more than 10 trail stewardship groups identified, (see above) the potential for unintended damage and over development of the area is eminent. The experience of the study process steering advisory would affirm the combined and coordinated efforts of these organizations and groups will provide a more effective and efficient result. As well, several of the organizations and their supporting provincial associations have offered to assist with in-kind and financial contributions to management of the area under a collaborative agreement.

Authorization

Key to establishing a sustainable and coordinated management plan is the need for all trails and new trail work to be authorized. Unauthorized trails and trail work on Crown Land is illegal. Authorization ensures trails are considered within a wider land use management and planning context (MTSA, 2007, p. 12), including forestry plans. It is also a requirement to secure funding, build partnerships, gain support from government, manage commercial tenure and use, assess environmental risks, and ensure trail development is conducted in a sustainable and lawful manner. (MTSA, 2007, p. 12)

Authorization, compliance and enforcement of the Larch Hills Recreational Trails fall primarily under the jurisdiction of the Ministry of Tourism, Sport and the Arts Recreational Sites and Trails Office, BC Parks/Ministry of Environment, and the Ministry of Forest and Range.

Non-Winter Trail Advisory

Recommendation 2.13 identifies the need for a multi-user stewardship group to coordinate non-winter recreational trail management in the Larch Hills. Discussion regarding the most appropriate organizational entity to lead or

champion this suggests a collaborative body may well provide the best approach over any one organization taking on the lead function.

Clear terms of reference and defined leadership roles including expectations of representatives from participating stakeholder groups will be critical. As well, the employment of a facilitator was identified as desirable to ensure the success of a multi-partnered advisory.

Further work is needed to determine the final shape and structure of a non-winter trail advisory. Regardless, leadership from the 2007 study advisory affirmed the importance of launching a permanent advisory body to move implementation forward. Translation of the draft recommendations into a Terms of Reference will be the first task of this group. A sample draft based on research into other multi-user stewardship agreements and advisory bodies has been prepared to assist this next step.

Funding a Non-Winter Trail Management Plan

Under a multi-stakeholder advisory, shared resources become available for the operation and management of a non-winter stewardship plan for the Larch Hills recreational trail system. Advisory and public sessions identified clear willingness by advisory partners to contribute both financial and in-kind resources (volunteer, materials, signage). Several trail user groups organize summer trail clearing events. Coordinated under a shared advisory, the effectiveness and efficiency of these activities could be maximized. The 2007 study advisory have all said they are willing and wanting to continue the process.

As well, the opportunity to engage new collaborative support from provincial land resource ministries presented itself with the response to mud bog damage in the region. Ministry of Environment has already begun the process of placing new signage. This will continue in the spring with the collaboration of MTSA Recreation and Ministry of Forestry and Range officers.

The Sicmaous Quadders ATV Club have expressed a desire to join with LHNS and the Shuswap Trail Alliance to contribute seed funding toward moving the co-use process forward. ATV BC has offered assistance with signage for trail use permission and restriction. As well, local members have been trained to provide citizen trail patrol services when out recreationally riding. This program is similar to the IMBA Mountain Bike patrol program being looked at by the Shuswap Trail Alliance.

MTSA Recreation and BC Parks have agreed to assist with barriers and signage, as well as rehabilitation resources. Programs like the BC Conservation Corps provide opportunity for more substantial planning and restorative project work. And new funding available through the Province of BC and other sources are well suited to support this new effort of collaboration.

As well, when asked about fees or donations for trail use, survey respondents indicated a mixed willingness to consider fixed trail use fees. On the other hand, a significant majority responded favourably to being given the opportunity to provide voluntary trail donations.

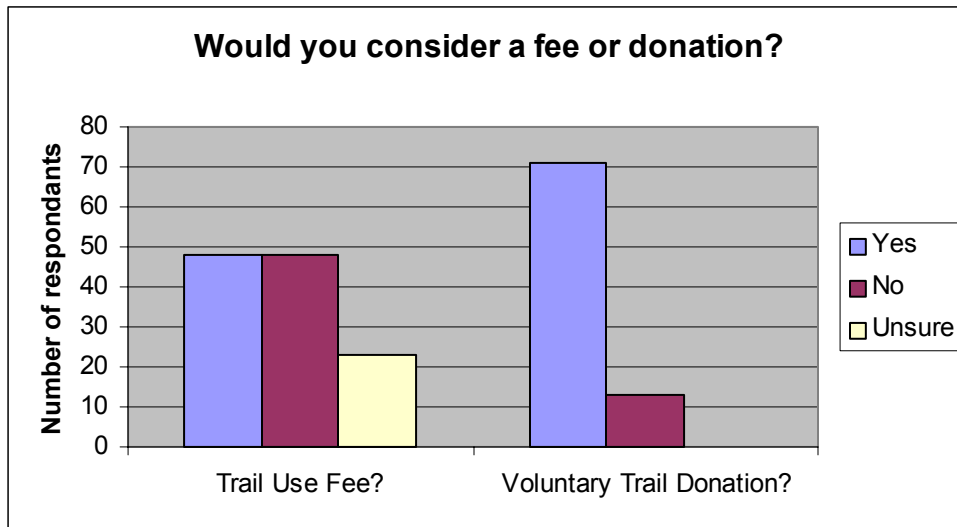


Figure 18. Willingness to consider trail use fees and/or trail donations.

The implementation of management actions will be necessarily incremental based on available resources and volunteer time. The following stewardship management recommendations have been organized with this in mind.

A full budget still needs to be developed to express several options for implementation. At the very least, a commitment to work together, meet at least twice annually, and install trail signage and circulate educational information would be very feasible within the current resources and budgets of the shared advisory.

Section 6: Recommendations

See Draft Recommendations for Discussion, attached

Section 7: Designated Trail Use

Recommendation 1.5 establishes the need to assess and designate non-winter trail use as either multi-use, non-motorized use, and where appropriate, specified single use. As well, several trails are recommended for non-winter closure due to environmental sensitivity or damage.

It was agreed by advisory partners that recommendations for appropriate use of trails was required to ensure both trail tread sustainability, environmental sensitivity, historic use, and current use were maintained. As well, trail designations provide a framework from which to propose and plan future winter and non-winter trail work.

The summer trail inventory of the Larch Hills provided an updated record of current condition and use for most of the areas 125 kilometres of marked trails, tracks and roads that make up the winter Nordic trail system. This information was placed alongside the earlier work completed by Clint Smith (LHNS, 2007) to inventory and direct non-winter trail use of the Nordic system.

The following tables and corresponding map outline a series of proposed trail use designations based on this discussion. They try to factor in the need for signature trail loop experiences for each kind of user group and a balance of experiences, while still honouring the historic non-motorized character of the area and those trails that were purpose built for non-motorized recreation.

Where trails are purpose built and not designated as status Forest Service Roads, authorized designations would be recommended to advance to the level of provincial authorization. Where trails follow existing status roads and forestry tracks, recommended use would be directive and not binding. In the case of the new Larch Hills Traverse trail sections built under the Shuswap Trail initiative, authorization is already in place under Section 57 of the Forest and Range Practises Act (FRPA) designating these as four season non-motorized routes.

NOTE: draft trail use designations are presented for further consideration and planning. (See map for reference.)

Multi-Use Trail Routes (All Vehicles)

These routes would encourage recreational use by all, including cars and trucks. They utilize the areas existing status Forest Service Roads, and provide access points to the areas northern trails. These roads are generally wider and more suitable for automobiles. They are also the primary access roads for industry, maintenance, and harvesting use of the area.

Trail Name	Current Condition/Notes
110 Road/The Moon Shot	Forest Service Road – clear, wide access, solid tread
Larch Hills Road	Parking lot to North Hub clear, wide access, solid tread. North Hub to 110 FSRoad narrow width difficult for regular vehicles
Larch Lake Loop	Clear, wide FSRoad
Sky trail	Wet sections on Alder Lane Connection and SE of North Hub - REPAIR
Summit Trail	Clear FSRoad access to summit. Good views.

Figure 19. Multi-Use Trail Routes (4x4)

Multi-Use (ATV/Motorcycle)

These routes are generally defined as narrower, suitably surfaced roads, tracks, and trails used by ATV and motorcycle off road users as well as other non-motorized users. They are more intimate in character than the wider routes identified earlier under Multi-Use (4x4). A map reflecting just the proposed Multi-Use (ATV) routes reveals a varied series of well-linked loops providing a variety of distances and experiences. In particular, ATV use can easily be directed to utilize several signature circuit loops making ideal half and full day outings.

ATV/OHV Signature Circuit

Identification of an ATV-specific signature circuit was discussed to as an aid to direct use and assist recreational users to find the trails best suited to ATV touring. The following sequence is popular: Sky Trail, North Larch Hills Road to Lichen Traverse, Caribou Memory up to the Summit. From here, a back track to 110 FSRoad is required, then loop around the north to Moon Shot, Clearcut Connection, Larch Lake Loop, Panorama, Baby Moonwalk, Stigs Loop, and back to the parking lot.

From the Summit, there is currently no continuous loop for ATV use. Widening of the connector trail east down to Larch Ledge has been occurring by ATV users seeking a through route. Advisory discussions suggest an alternate extension route for ATV use be considered in this area (see *New Purpose Build Trails*.)

Two additional routes that provide significant ATV touring options and were identified as favourites by riders in the area were to start at Metford Road accessed from the South Canoe parking area in Salmon Arm to the east, and the Moonwalk circuit linking into the Rosemond Lake Forest Service Road to the east. Both provide a longer tour on status Forest Service Roads, but because substantial logging has been limited in recent years the routes have greened in creating more intimate lanes that enhance the semi-wilderness feel for ATV and other Off Highway Vehicle (OHV) riders.

Distinct Motorcycle and Non-Motorized Signature Circuits

The advisory recognized a clear overlap of interest between motorcycle trail users and non-motorized trail users. Whereas ATV users require wider trail treads, motorcycle trail users favour the same “skinny” trails built by non-motorized users. Several key overlap points were identified during the study. These include Larch Ledge, Deer Track, Lunar Loop, Fir Lane, Hemlock Glide, The Greenway, Bruin’s Ramble, and Catamount Canyon.

Feedback from representative users on the advisory (Jan. 17, 2008) suggest a reasonable compromise might designate the OGMA west of Upper Violet Creek through to Larch Lake, including sections of Deer Track and Lunar Loop, as a designated non-motorized zone. This, in part, recognizes the less robust surface of the trails through the forest in this area. It is primarily a wetter forest of mixed cedar and hemlock with a floor of deeply decaying duff and moss. Access to mineral soil is difficult. Water flow from the Upper Violet Creek and surrounding wetlands is easily disrupted. Advisory participants agreed increased motorized impacts would not be sustainable in the area, evidenced by the irreparable damage to Nordic trails like the north section of The Greenway (mistakenly labelled White Pine Walk south on current maps.) By establishing this area as a non-motorized zone, a longer loop for non-motorized use would then be possible using both Treebeards Trail, The Greenway, and by establishing the current snowshoe route as a purpose built non-motorized trail between the main Chalet parking lot and Cec’s Cabin. (See *New Purpose Built Trails*.)

In turn, a signature circuit valued by motorcycle trail users and suitable for a family outing might look to adopting Ridge Run, Catamount Canyon, part of Log Roller, a new link over to Clearcut Connector, another new link from Clearcut Connector through to the Larch Ledge spur climb to the Summit, then south down Summit Trail to Deer Track, Larch Hills Road, North Hub, Cec’s Canyon, and then Pileated Promenade, Blue Sky, Reinos, and back to the parking lot. It is proposed this option be explored by a small recon group of representative trail users in the spring of 2008. (Jan. 17, 2008)

Trail Name	Current Condition/Notes
Baby Moonwalk	Good tread
Blue Sky	Propose brushing for “skinny” trail motorcycle use
Caribou Memory	Good tread. Recently brushed.
Catamount Canyon	Creates ATV/OHV signature loop with north trails. Point repair or trail route alteration required near south access due to water
Clearcut Connection	Good tread. Main multi-use through route. Recently brushed.
Cougar Corridor	Good tread.
Deadman’s Drop	Good tread. Frequently used by motorcyclists
East Dales	Good tread
Ermine Frolic	Generally good tread, though less used. Point repair on outer (west) low point.
Heartbreak Hill	Okay – wet sections.
Larch Ledge (summit spur)	Proposed link for motorcycle circuit. Currently very roughly brushed for ATV.
Lichen Traverse	Good tread. Needs brushing.
Mara Connection	Good tread.
Metford Road	Overall good tread. Narrower track creates lane-like feeling for ATV/OHV and other multi-use. Gated at South Canoe limits vehicle access. Some sections eroding due to steeper grade channeling water. A few small but passable water pools. Needs overhead brushing.
Moon Walk	Overall, good tread. Narrow, clear track. Too narrow for 4x4 vehicle use. Well used by ATV/OHV. One impassable spot at eastern stream crossing. (low point) Point repair required. Needs culvert and reinforced raised surface.
Mushroom Fantasy	Good tread. Clear, narrow track. Too narrow for 4x4. Well used by ATV/OHV.
Panorama	Good tread
Pileated Promenade	Good tread. Creates ATV/OHV signature loop with north trails
Raven’s Ridge	Good tread
Reino’s Run	Generally good tread. Some softening where wet section near Cottonwood Cutoff where wood chipping was laid by LHNS. Monitor.
Skyview	Generally good tread. Motor access to woodlot ramble only.
Stigs Loop	Good tread
Summit Trail (south)	Steep. ATV/OHV suitability still being considered.
Willow Switch	Not inspected.
Woodlot Ramble (east)	South end open. North end to road closed at private woodlot

Figure 20. Multi-Use Trail Routes (ATV)

Non-Motorized (EQ/Hike/Mountain Bike)

These trails are identified to provide a dedicated non-motorized experience for hikers, cyclists, and equestrian trail riders. Most were originally purpose built by Shuswap Outdoors as non-motorized trails. The surface tread is often narrow, winding, and intimate providing a quiet, natural encounter.

Fragmented Loops

A review of dedicated non-motorized trails reveals a less desirable series of fragmented trail sections for non-motorized travel in general. (See map.) Based on the overall affirmation of working to maintain non-motorized trail experiences, a strategy to create a wider variety of primarily non-motorized loops is needed.

In some cases, trails originally built for hiking have been adopted by ATV use causing the trail tread to widen. In the case of some of these trails (e.g. Lidstone Connection, Ridge Run) it is recommended they be re-committed as non-motorized to increase the potential for complete loops that are non-motorized, especially to establish an equestrian loop in the south.

Trail Name	Current Condition/Notes
Afterthought	Summer closure for rehabilitation. Impassable due to damage and flooding at junction with Hemlock Glide and White Pine Walk. Reroute or deck. Flooding in tire ruts may need drainage. Note: alternate around route has been cut.
Aspen Arrete	Good tread.
Bilbo's Bypass	Track along SE edge of bog to Metford Road. Block access to bog.
Bobcat Bounce	No report.
Bruin's Ramble	Good tread. Narrow, single track still intact.
Cedar Circle	Summer closure for rehabilitation.
Chipmonk Chase	Trail a bit boggy. Monitor for increased damage.
Cottonwood Cutoff (north)	Overall good tread. Point repair required between Spruce Lane and Reino's Run due to water erosion across road. Culvert needed. Limited access for EQ/Hike/Cycle at junction with Reino's Run; needs moveable barrier and sign.
Cottonwood Cutoff (south)	Summer closure permanent. Significant damage within Upper Violet Creek Provincial Park. Needs moveable barrier and BC Parks signs.
Coyote Caper	Monitor for potential flooding and damage due to potentially altered runoff.
Devil's Lunge	Good condition. Note: east section in private woodlot closed.
Fir Lane	Single track. Good tread. Recently brushed.
Forest Fantasy	No report.
Gullan's Gully	Significant wet area next to bog. Point repair required, or close to summer use.
Hemlock Glide	Summer closure for rehabilitation. Section damage between Whiskey Jack to White Pine Walk. Impassable at junction with Afterthought and White Pine Walk. Reroute or deck. Flooding may need drainage. Assess for EQ use.
Larch Hills Traverse	Western sections still in development. East sections completed. Clear tread.
Larch Ledge (North/South)	Good tread. Recently brushed. South section to Deer Track steep. Note: spur to summit proposed as ATV/Motorcycle section.
Lidstone Connection	One mud section with permanent trail bypass needs point repair north of junction with Coyote Caper.
Log Roller (North)	North section is single track. Proposed maintained as non-motorized. Note: Southern portion proposed ATV/Motorcycle plus new link to NE.
Lunar Loop	Narrow track. Recently brushed.
Lynx Trot	No report.
Marten Track	No report.
Moose Hollow	Summer closure for rehabilitation. Within Bilbo's Bog area. May warrant permanent closure.
Porcupine Alley	No report.
Ridge Run	Propose non-motor through route. However, does get motorbike use
Spruce Lane	Good tread. Barrier needed to prevent motor access onto Cottonwood Cutoff.
Squirrel Run	No report.
Tamarack Turnpike	Good tread. Proposed non-motorized to allow for better non-motorized options with Cec's Cabin and North Hub. ATV/OHV use still being considered.

The Greenway (west)	Summer closure for rehabilitation. Bogged sections require reroute or decking. Assess for EQ use.
The Greenway (north)	Extreme damage. Close permanently to summer use.
White Pine Walk (north)	Summer closure for rehabilitation. Damaged sections flooded and impassible. Reroute or deck as appropriate. Consider draining flooded area at Afterthought. May need culvert and armoring to accommodate EQ use. Requires further review to determine suitability of tread for EQ access.
Woodlot Ramble (west)	New nordic trail built in 2007. Extremely wet in summer. Restrict to non-motor and monitor for rutting.

Figure 21. Non-Motorized (Hike/Cycle/Equestrian)

Hike/Cycle Only

Very few trails for purely self-propelled recreational use during the non-winter months are currently available within the Larch Hills system. It is recommended the interpretive nature trail at the South Hub, which was originally built as a walking trail, remain designated as a purely self-propelled loop (hiking and cycling only.) Tree beards trail, while currently impassable in the summer, has been identified as suitable for rehabilitation for self-propelled use. (R. Gunoff, K. Gibson, site visit, Sept. 14, 2007) And a new section of the Larch Hills Traverse has been authorized for development as self-propelled only linking to The Greenway from the west (see map). No other hike/cycle only routes currently exist. Further consideration is needed to create natural, self-propelled trail loops. (See new purpose built trail proposal below.)

Trail Name	Current Condition/Notes
Cottonwood Connector	Summer closure for rehabilitation. Deck wet sections.
Deer Bog	Summer closure for rehabilitation. Deck wet sections.
Deer Track	Summer closure for rehabilitation. West section to Larch Hills Road very wet and muddy. Requires decking for hike/cycle only. East section fluctuates depending on beaver dam and flooding. Tread generally good midsummer 07, but may require decking or reroute in future.
Interpretative Nature Trail (S)	Great condition. Single track maintained. Recommend: Keep as nature walk. Allow bicycles, but monitor for impact and conflict. Leave natural trail features
Interpretative Trail (NE)	Good condition (connection between Stigs and Frodo's East)
Interpretative Trail (N)	Generally good condition. Some steps gone and exit to Larch Hills Road needs repair. Recommend reconsidering slope and alignment to eliminate need for wooden step structures. Some interpretative signs require replacement. (Note: there is a replacement set of interpretative signs in storage)
Larch Hills Traverse: Cedar	Authorized. To be constructed.
The Thicket	Summer closure for rehabilitation. Wet sections require decking for hike/bike only.
Treebeards	Summer closure for rehabilitation. Significant wet and damaged sections require decking for hike/cycle use only.

Figure 22. Self-Propelled (Hike/Cycle)

New Purpose Built Trails

Non-motorized and Self-Propelled

The creation of new purpose built single-track trails has been recommended in order to create better trail loops for non-motorized trail use. The current winter snowshoe route from the main parking lot to Cec's cabin is one route that has been suggested. (See map and discussion re: Motorcycle and Non-Motorcycle Signature Routes above.) Authorized and built as a dedicated hiking and cycling route, it would create a longer trail section linked to Cec's

cabin creating a signature loop with Treebeards and The Greenway. As well, it would provide a dedicated self-propelled route through the centre of the region that is currently unavailable. (See map.)

As mentioned earlier, a new section of the Larch Hills Traverse has been authorized for development as self-propelled only linking to The Greenway from the west (see map). Several additional sections have been proposed that would help to establish a non-motorized corridor west to east through the northern trail system.

Further work to identify, plot, assess, and authorize new trails that would extend the non-motorized opportunity for dedicated loops is needed. This may also require further negotiation and compromise amongst user groups on existing trails currently recommended as multi-use.

Motorcycle Route

The advisory discussion revealed many motorcycle users do not favour shared tracks with ATV users. In fact, they prefer narrower single-track trails similar to those sought by hikers and cyclists. The double rutting of ATV tracks is a less appealing ride experience to the more intimate and aesthetic single-track trails. As well, the Larch Hills were identified as an area well suited for family trail experiences, noting other areas in the region were more suited for technical off-road motorcycle use.

This raises the need for further discussion, and potentially, a new signature route defined for motorcycle trail users in the Larch Hills. Alternately, the advisory might work with the motorcycle club and local users to identify and support new motorcycle bush trails in other areas of the region. Further discussion and planning is needed.

Several new sections of trail were proposed to address creating a signature route for motorcyclists, while still balancing the need for exclusive non-motorized single-track trails. See discussion re: Motorcycle and Non-Motorcycle Signature Routes above.

Trail Name	Current Condition/Notes
Larch Hills Traverse West	Provincial authorization has been given for a new non-motorized link to Hemlock Glide, and a hiking only link to the Greenway.
Whisky Jack to LH Road	Proposed as non-motorized link to avoid wet areas by using side hill
Larch ledge to LH Traverse	proposed as non-motorized through connector to Larch Hills Traverse
Larch Ledge to Clearcut Connector	proposed as ATV/Motorcycle alternative link to bypass Larch Lake
Fir Lane to Caribou Memory	proposed as non-motorized connector for Larch Hills Traverse
Chalet to Cec's "snowshoe" Trail	proposed as non-motorized connection to create a link to interpretative loop and a longer signature loop with the North Hub and west trails.
Log Roller to Moon Walk	proposed as connection to link longer ATV/motorcycle signature loop

Figure 23. Proposed new trail sections

Point Repairs

Several trails were identified for point repairs. Damage was considered isolated and not warranting complete closure for rehabilitation. In some cases, culverts to assist water drainage and stabilize road erosion are needed. In other areas, use of wood chips to stabilize unwanted trail surface damage was recommended. This technique was used on Reino's Run three years ago with good success.

Trail Name	Current Condition/Notes
Moon Walk	One impassable wet spot at eastern stream crossing. (low point) Point repair required. Needs culvert and reinforced raised surface.

Sky trail	Wet sections on Alder Lane Connection and SE of North Hub - REPAIR
Catamount Canyon	Point repair or trail route alteration required near south access due to water
Cottonwood Cutoff (north)	Point repair required between Spruce Lane and Reino's Run due to water erosion across road. Culvert needed.
Gullan's Gully	Significant wet area next to bog. Point repair required, or close to summer use.
Ermine Frolic	Generally good tread, though less used. Point repair on outer (west) low point.
Lidstone Connection	One mud section with permanent trail bypass needs point repair north of junction with Coyote Caper.

Figure 24. Point Repairs Identified

Non-Winter Closure for Rehabilitation

Some trails are currently impassable to summer use due to significant damage. Of these trails, several were identified as suitable for rehabilitation for limited self-propelled use. (R. Gunoff, K. Gibson, site visit, Sept. 14, 2007) Until they are repaired these trails will need to be closed to use during the summer. (See map.)

Trail Name	Current Condition/Notes
Afterthought	Impassable due to damage and flooding at junction with Hemlock Glide and White Pine Walk. Reroute or deck. Flooding in tire ruts may need drainage. Note: alternate around route has been cut.
Deer Track	West section to Larch Hills Road very wet and muddy. Requires decking for hike/cycle only. East section fluctuates depending on beaver dam and flooding. Tread generally good midsummer 07, but may require decking or reroute in future.
Gulan's Gully	Wet section needs decking or culvert.
Hemlock Glide	Section damage between Whiskey Jack to White Pine Walk. Impassable at junction with Afterthought and White Pine Walk. Reroute or deck. Flooding in tire ruts may need drainage. Assess for EQ use.
Moose Hollow	Within Bilbo's Bog area. Wet areas require reroute or decking. Assess for EQ use. May warrant permanent closure.
The Greenway (west)	Bogged sections require reroute or decking. Assess for EQ use. (Note: north trail to be permanently closed to summer use)
The Thicket	Wet sections require decking for hike/bike only.
Treebeards	Significant wet and damaged sections require decking for hike/cycle use only.
White Pine Walk (north)	Damaged sections flooded and impassible. Reroute or deck as appropriate. Consider draining flooded area at Afterthought. May need culvert and armoring to accommodate EQ use. Requires further review to determine suitability of tread for EQ access.

Figure 25. Summer Closure for Rehabilitation

Non-Winter Closure Permanent

Damage to some trails is so extensive to warrant permanent closure during the non-winter months. This includes the north hub connector to The Greenway (mistakenly labelled and signed as White Pine Walk South). Site inspections with land resources officers confirmed the extent of the damage and the impracticality of trying to rehabilitate these trails for non-winter use. Ecological restoration of the habitat, where possible, is recommended, including monitor and mitigation of invasive plant species. (R. Gunoff, K. Gibson, site inspection, Sept 14, 2007) These routes will be barricaded and signed to non-winter use. Permanent concrete balustrades at trailheads are recommended. (K. Gibson, site inspection, Sept 14, 2007) Winter access for off track backcountry skiing will still be feasible once snow cover depth is adequate.

Trail Name	Current Condition/Notes
Bilbo's Bog	within Upper Violet Creek Provincial Park. Generally intact and undamaged. Some signs of experimental access. Needs moveable barriers. Also block SE corner access from bypass track.
Cottonwood Cutoff (South)	within Upper Violet Creek Provincial Park. Significant bog damage due to motorized access along section that crosses and parallels the creek. Needs moveable barriers and BC Parks signs.
Frodo's Bog	within Upper Violet Creek Provincial Park. Significant damage due to regular mud bogging. Needs moveable barriers.
Larch Lake Access trails	Log Roller North. Significant damage to lakeside riparian areas from vehicle access. Needs permanent summer barrier.
The Greenway (North Trail)	currently incorrectly signed White Pine Walk (South) Extreme irreparable damage extends along length of trail. Flooded and impassible. Close permanently to all summer use.
Whiskey Jack	Access blocked by flooding at junction of Hemlock Glide, Afterthought, and White Pine Walk. Large old growth tree fall currently blocking trail. Recommend leaving closed.

Figure 26. Summer Permanent Closure

Idle-Only Zones

Enquiry into other mixed-use trail areas in the province revealed the use of "idle only" zones in gathering and staging areas worked well to address issues of noise and speed. Experience from equestrian trail parties suggested noise levels were very tolerable where ATV groups conducted idle only policies, and turned engines off when parked. (L. Lenglet, discussions, Dec 11, 2007)

Implementation of idle only and engine off zones surrounding all gathering areas in the Larch Hills is proposed. As well, monitor of noise impacts on the overall experience quality of trail users has also been recommended as a measure for monitoring the intended stewardship priorities and multi-use recreational goals for the trail system.

Trail Name	Current Condition/Notes
Cec's Cabin	extend idle-only perimeter 150 m square in all directions
Main Chalet Area	extend idle-only perimeter 500 m north and south, and 250 m east and west
South Hub	extend idle-only perimeter 150 m square in all directions
Tom's Shelter	extend idle-only perimeter 500 m north, and 150 m east and west

Figure 27. Idle-Only Zones

Private Woodlot

Nordic ski trails crossing the private woodlot (WL 1572) located directly south of the main Chalet parking area enjoy seasonal winter access for Nordic skiing. This is possible due to a liability and insurance arrangement that co-signs the woodlot owner into the Larch Hills Nordic Society insurance coverage, but only applies to the winter ski season. The woodlot owners are open to a similar arrangement for non-winter access. In the absence of insurance coverage, access to trails crossing the woodlot will not be allowed. Signs discouraging access will be needed. Note: the woodlot owners' discouraged use of gates to block access due to previous experience with vandalism on existing gates. (C. Olsen, correspondence, Dec. 7, 2007)

Trail Name	Current Condition/Notes
Credit Union Express	Sign for non-winter closure until management agreement and insurance established.
Devil's Lunge (south)	Sign for non-winter closure until management agreement and insurance established.

Lover's Lane	Sign for non-winter closure until management agreement and insurance established.
Sunshine	Sign for non-winter closure until management agreement and insurance established.
Thieman's Ski out	Sign for non-winter closure until management agreement and insurance established.
Woodlot Ramble (north)	Sign for non-winter closure until management agreement and insurance established.

Figure 28. Trails crossing private woodlot.

New Nordic Ski Routes

Recent discussion within the Larch Hills Nordic Society are looking at the potential for a new tracked ski route between the South Hub and North Hub. (Advisory meeting, March 31, 2008) A key issue is track setting efficiency. With only three routes currently connecting the two main hubs, each track setting session must pass over one of the routes twice wasting time and resources. As well, changing snow conditions may increase the need to look for new Nordic ski routes at higher elevations in the years to come. Under consideration is the area between Larch Hills Road and the Sky Trail (see current snowshoe route and proposed hike/cycle route), and the area between Moonwalk and Panorama east of Larch Hills Road. It will be important for participation of non-winter advisory stakeholder in these discussions.

Section 8: Environmental and Recreational Trail Quality Measures

Recommendation 1.6 identifies the following trail stewardship objective: **to Identify Environmental and Recreational Trail Quality Measures** that reflect the stewardship priorities named in Recommendation 1:4 and can be easily monitored. (Larch Hills Non-Winter Trail Recommendations, Jan. 22, 2008) These would include Visual Quality, Noise Quality, Quality of Interaction between user groups, and Site and Trail disturbance. Variance beyond an acceptable level under each of these would initiate new consultation and adaptations to trail and site management.

This concept arose as a method for establishing specific standards and measures that define the intended outcomes for each of the Stewardship Priorities. Shared discussion to establish these measures will provide an opportunity to clarify desired standards together. These, in turn, provide a tangible framework for monitoring the success of the trail stewardship plan and alert the advisory to the need for revision, adaptations, and potential mitigating action and enforcement.

Limits of Acceptable Change (LAC) Process

Further research identified two pilot projects within the Province of British Columbia that are utilizing a similar standards based model for recreational planning called the *Limits of Acceptable Change (LAC) Process*. (BCILMB, 2007; Morlock, P. et al, 2006) It is a process where impact evaluation, monitoring, and management are based on mutually agreed upon "social and environmental conditions for an area." (BCILMB, 2007, p. 1) The LAC Process has been used successfully in jurisdictions around the world and warrants consideration as a tool for guiding the development of trail quality measures for the Larch Hills system. (See Golden/Windy Creek Project Backgrounder, BCILMB, 2007) Extension of the LAC process to encompass the entire region is also a reasonable consideration for future backcountry recreation management throughout the Shuswap.

Visual Quality

Trail users have identified the natural integrity of their surroundings as an important quality drawing them to wilderness recreational areas like the Larch Hills. The user surveys clearly indicate nature viewing and bird watching as important non-winter activities (see Figure 5) and trails in pristine and natural environments as highly desirable (see Figure 11) As well, the Okanagan Shuswap LRMP recommends establishment of new Old Growth Management zones (OGMAs) along trail corridors within the area. Maintaining consistent visual integrity within the existing trail system will be important for long-term sustainability of non-winter recreational trail use.

Damaged infrastructure, garbage, expanding signs of erosion and tread damage, and extensive harvest all impact visual quality and subsequent recreational use of an area. (BC Ministry of Forests, 2003) A recent study has found that where timber harvest met provincial Visual Quality Class ratings of Partial Retention or better, public opinion increased significantly to 71% who said they would return to the area. Partial Retention refers to harvest alteration that is easy to see, but small to medium in scale, and natural not rectilinear or geometric in shape. (BCMOFR, 2006, p. 15) Monitoring might include both user satisfaction ratings, annual consultation with local forest planners, and visual monitor of key locations deemed to be view-sensitive.

Noise Quality

Surveys identified the majority of trail users looked for trails that offered solitude and quiet. (see Figure 11) Solitude and quiet can be thought of as a banked resource that is limited. Any noise takes from this limited resource bank. User perception affects tolerance. Some sounds (bird song, coyote call) can be considered by users as desirable and even an enhancement to the overall quality of solitude and natural silence. Noise from other users, however, is perceived to draw on the limited resource of natural solitude and silence and therefore the overall quality of the area. Where an area is recognized as a technical trail-riding zone for motorized use, a higher tolerance for noise from other users is possible. In the case of the Larch Hills Trail system, however, users clearly identified that quiet semi wilderness natural trail experiences were a priority. Tolerance for noise will be much lower. In some cases, a single user can draw on this limited resource over a significant area, essentially draining and overtaxing the bank for all other users. Monitoring user satisfaction specific to solitude and quiet provides a means of monitoring the impact of noise.

Site-specific field tests for sound quality can also be considered, especially on selected trails designated for non-motorized use with high aesthetic wilderness values (e.g. The Greenway, Treebeards, Deer Track), and at intensive use gathering sites (Chalet, Cec's Cabin). Bench marks for reasonable noise levels can be established (for example, at intensive use gathering points like the main chalet parking area) Perhaps engine use is limited to durations of 2 to 3 minutes for entering and exiting by individuals. Regular significant noise disturbances for longer than 2 or 3 minutes would then indicate the need for response, prompting the advisory to meet and initiate adaptive measures to resolve the problem.

Further research is needed to explore the use of visual and sound quality measures used elsewhere.

Quality of Interaction Between User Groups

Compatibility, safety, and cooperation of shared use areas are points of monitor based on the quality of interaction between user groups. Perceived compatibility of trails clearly varies according to user types. Hikers are

less likely to welcome excessive encounters with motorized vehicles. Safety on narrow, steep, or sharply turning trails is a concern where users may encounter each other. Signage, trail design, direction restrictions, and use restrictions can aid mitigation of these concerns. Shared enjoyment at gathering areas helps to build awareness and cooperation throughout the trail system and amongst multiple user groups. All can be monitored through simple, regular user satisfaction surveys.

Site and Trail Disturbance

Environmental impacts were identified as the number one management priority for the Larch Hills Trail system. Trail and site disturbance can be monitored through established plots set on different trails according to designated use. Where a trail is designated for single-track non-motorized hiking and cycling experience, indicators of trail compaction, soil displacement, and widening due to motorized use would warrant response. On multi-use trails, signs of increased widening, alterations, incursions off trail, or increased erosion and water flooding would indicate need for response.

In the case of sensitive ecological areas, similar plots can be monitored for signs of unauthorized entry and damage, increased propagation of invasive plant species, and signs of altered hydrology and erosion. For example: Frodo's and Bilbo's Bogs.

It is recognized this needs to be done as a collaborative effort supporting the appropriate jurisdictional bodies (MoE, MTSA, MFR). Further direction and specific measurable criteria will need to be established with these agencies.

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Section 10: Attachments

Draft Recommendations

Maps

General Location Map (from Memorandum of Agreement)

Larch Hills Administrative Map (G. Hartling, Silvatech)

Status Forest Service Roads

LRMP RMZ for Shared Use (Summer) and Cross Country (Winter)

Proposed Non-Winter Recreational Trail Use Map

Larch Hills 2007 Temporary Summer Trail Use Map

Larch Hills 2008 Temporary Summer Trail Use Map

Note: For copies of the raw trail survey data, register and custodian tallies, and other background materials please contact the Shuswap Trail Alliance (www.shuswaptrailalliance.com), the Larch Hills Nordic Society (www.skilarchhills.ca), or the author at luminous@jetstream.net