

# **Strathcona Provincial Park**

## **Master Plan Amendment**

### **Horse Use in Strathcona Park**

prepared for:

British Columbia Ministry of Environment  
Environmental Stewardship Division

submitted by:

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14 November 2008

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# 1.0 Introduction

This report identifies issues, options and general direction for determining criteria for horse use in Strathcona Provincial Park and an associated amendment to the park's existing master plan. Much of the information included in this report was gathered and summarized as part of facilitating public consultation on horse use in the park.

The information included or referenced in this report is from the public in a variety of forms; from the L2 Impact Assessment conducted during the same time; from additional research as part of this project; and, from professional experience. The conclusions of the report are those of the author.

The major conclusions from this study can be summarized as:

- A substantial majority of the contributing public are against horse use in Strathcona Provincial Park except - possibly - in a few select areas.
- The most often stated reasons given for opposing horse use were concern about the potential environmental impact grounds. Other significant comments were based on potential conflicts with other users and on commercial interest conflicting with public use.
- An important challenge to determining criteria is the absence of information on horse impacts in a temperate rainforest environment. As a result of this absence, this report favours caution in any consideration of horse use in the park.
- This study does not address a current proposal for horse use; the focus is on identifying issues, options and general direction will be relevant anywhere in the park.
- A general conclusion of the report is to avoid considering horse use requiring significant mitigation or development that would require new trails in wilderness areas.

## 2.0 Background

The process undertaken by BC Parks was developed in response to an application by a private company to guide horses into Strathcona Park along the Bedwell River as far as You Creek. The primary issue became horse use. From the initial master plan to the present, horse use in Strathcona Provincial Park has been controversial with a majority of public feedback preferring that this recreation take place outside of the park, or, if allowed, only within a few designated areas. In spite of this view of horse use, the existing documents (1993 Master Plan and 2001 amendment to the Master Plan) did *not clearly prohibit* horses in other than specified locations. As a result of this lack of clarity and the results of public consultations required by BC Parks and undertaken by the private company – which were primarily negative in their reaction to the application – the decision was made to undertake a Level Two Environmental Impact Assessment of the application area and proposed development. In addition, BC Parks initiated another series of public consultations with the specific goal of establishing criteria for considering any application for horse use in Strathcona Provincial Park. The ultimate goal was to provide a scientifically and socially valid system for evaluating horse use in the park. These criteria would then be used to assess any application for horse use.

### Clayoquot Wilderness Resort Application

Clayoquot Wilderness Resort (CWR) made application for a Park Use Permit (PUP) to guide horses into Strathcona Provincial Park as far as You Creek. The CWR already has a PUP to guide hikers in the park.

The proponent proposed to improve and maintain a trail along an old roadbed, to replace unsafe bridges, and to construct a tent campsite.

Horse use is one of the recreation activities that may be considered in a wilderness recreation zone – which in Strathcona Provincial Park includes the lower Bedwell Valley. Due to the potential recreational benefits to the park (upgrade and maintenance of existing trail), coupled with appropriate zoning of the area, the utilization of an old roadbed, and the debatable clarity surrounding horse use in this area, BC Parks had CWR seek additional information from the public through public information open houses in Tofino and Courtenay in 2007.

A key stakeholder meeting was held to discuss issues and gather additional public input. Participants included Friends of Strathcona Park, BC Wilderness Tourism Association, CWR, BC Parks, Ahousaht First Nation, Strathcona Park Public Advisory Committee (SPPAC), and the Federation of Mountain Clubs.

### BC Parks Actions

BC Parks facilitated a joint stakeholder field trip in the fall of 2007 to walk the entire length of the trail/road corridor.

BC Parks also sought the advice of the Strathcona Provincial Park Advisory Committee, discussing the issue at length over many meetings during 2006 and 2007, which resulted in different recommendations, the most recent recommendation from January 2008 is:

“The Committee recommends that based on the Master Plan and Master Plan Amendment, a Park Use Permit cannot be issued for CWR’s proposal. The proposal has limited support from some members, while others are adamantly opposed.”

Summary - The committee did not endorse this amendment process.

Based on other information and input received, the Ministry determined that further clarification of the master plan regarding horse use was necessary and decided to undertake a focused master plan review and amendment that seeks clarification on horse use in the park. The 2001 Strathcona Provincial Park Master Plan Amendment provides an option to address emerging issues by stating: “Review of the plan may occur in response to specific issues that were not foreseen by the plan and require greater public review.” The plan also states that “other areas may be reviewed,” in addition to the two areas that are currently designated for horse use.

### **3.0 Process for Resolving Horse Use Issues**

In addition to the public consultation – which is discussed in the next section – a search of the relevant literature on horse use in parks elsewhere was undertaken.

During the preparation for the public consultations, internal discussions focused on what specific public input was being asked for. The need for this consultation and an amendment of the master plan had been caused by the lack of clarity that existed with regard to what constituted an appropriate location for horse use in the park. Some of the authors of the 1993 master plan and its 2001 amendment were present at the public consultations and emphasized that for most of the participants in these planning projects, the desired outcome would be the exclusion of horse use anywhere in the park. The agreement to consider and tentatively identify some possible locations were intended to satisfy a few members of the management planning group in order to move the process forward.

The conclusions that arose from these internal discussions were that:

- “Vagueness” was the cause for having to follow a lengthy process including substantial public consultation.
- Providing park managers with more detailed and qualitative criteria for assessing any application for horse use would be of value in achieving a clear and effective process for determining the appropriateness of any proposal. It would also provide the proponent and public with a better understanding of how and why decisions were made.
- The thrust of the public consultation was to acquire information on criteria for horse use.

The Bedwell Valley application would be the first test for the criteria that would be drawn from the literature, from public input, from a Level Two (L2) environmental impact study, and from professional evaluations.

## 4.0 Summary of Public Consultation

This section of the report provides information on the process of contacting the public, the options the public had for providing input, a summary of this process, and a summary of the results of the input.

### 4.1 Public Contact and Response

#### Mail out

Approximately 400 information and invitation letters regarding the Strathcona Provincial Park Master Plan review process were sent to everyone listed on the 2004 Strathcona Provincial Park mailing list on Tuesday, May 20, 2008 from Ministry of Environment (MOE) Nanaimo office. The 2004 Strathcona mailing list was compiled through public consultation during the last Strathcona Master Plan Amendment process.

#### Media

5" x 5" Ads were placed in several newspapers advertising the Open Houses, Public Meetings and the BC Parks website information (to obtain further information).

Friday May 22, 2008

- Tofino/Ucluelet Westerly News
- Campbell River Mirror
- Comox Valley Echo

Friday May 30, 2008

- Times Colonist
- Goldstream News Gazette
- Oak Bay News
- Saanich News
- Peninsula News
- Sooke News Mirror
- Victoria News

#### BC Parks Website

Tuesday May 20, 2008 the information on the Strathcona Provincial Park Master Plan review process as well as the dates and times of the Open Houses and Public Meetings were posted on the website under Active Management Planning with a link from the Strathcona Provincial Park page.

#### E-mail

Friday, May 9, 2008 -Andy Smith contacted members of the Ahousaht First Nations by email to provide them with an update on the Strathcona Provincial Park Horse Use issue and to invite them to meet with the planning team to discuss this issue. In addition, he invited members of the First Nation to the Open House and Public Meeting held in Tofino on May 27<sup>th</sup> at the Weigh West Hotel.

In the weeks of May 12 – 24, 2008 – Andy Smith e-mailed out the information on the Open Houses and Public Meetings to the SPPAC, other interested stakeholders, and other people he knew had interest in the project.

Monday, May 26, 2008 - Harry Parsons sent out an e-mail letter – and followed up with phone calls - to invite representatives of the key stakeholder groups to the Courtenay Stakeholder Meeting and included the information on the Public Open House and Meetings in Tofino, Courtenay, and Victoria.

The stakeholder group represented organizations that have been involved in previous public consultations. The group included representatives from:

- Wilderness Tourism Association
- Strathcona Park Lodge
- Backcountry Horse Riders Association
- Strathcona Provincial Park Advisory Committee
- Horse Council of BC
- Clayoquot Wilderness Resort
- Comox District Mountaineering Club
- Friends of Strathcona Park
- Federation of Mountain Clubs

## **PUBLIC MEETINGS**

### Open Houses

Included:

- Displays
- Comment Forms
- 4 MOE Staff – Ron Quilter, Andy Smith, Sharon Erickson and Peggy Burfield
- 2 Consultants – Harry Parsons and Shannon Macey-Carroll

DATE	TIME	LOCATION	VENUE
May 27	2:00 pm – 6:00 pm	Tofino	Weigh West Marina - Chinook Room
May 28	2:00 pm – 6:00 pm	Courtenay	Native Sons Hall – Lower Level
June 4	2:00 pm – 6:00 pm	Victoria	Burnside Gorge Community Centre – Lower Level

### Public Meetings

- Facilitated by Harry Parsons and recorded by Shannon Macey-Carroll
- Panel Members – Ron Quilter, Sharon Erickson and Andy Smith
- Other Staff - Peggy Burfield (Tofino and Courtenay)

DATE	TIME	LOCATION	VENUE	#
May 27	7:30 pm	Tofino	Weigh West Marina – Chinook Room	35
May 28	7:30 pm	Courtenay	Native Sons Hall – Lower Level	110
June 4	7:30 pm	Victoria	Burnside Gorge Community Centre – Lower Level	25

### Stakeholder Meeting

- By invitation only
- Facilitated by Harry Parsons and recorded by Shannon Macey Carroll
- Staff Members – Ron Quilter, Sharon Erickson, Andy Smith

DATE	TIME	LOCATION	VENUE	#
May 29	7:30 pm	Courtenay	Native Sons Hall – Lower Level	13

### **PUBLIC INPUT IN THE PROCESS**

A wide range of options were provided for public input into the Strathcona Provincial Park Master Plan review. The goal was to ensure that any interested member of the public would have a clear, simple opportunity to comment on the review using means that they were most comfortable with.

#### Open House:

- comment forms were available for people to fill out
- staff were present to discuss issues with the public

#### Public Meeting:

- the audience were given the opportunity to ask questions or provide comments.
- meeting notes were recorded
- comment forms were available for people to fill out or take home and mail in

#### Stakeholder Meeting:

- a selected group of stakeholders were invited to send a representative to the Stakeholder meeting where they had the opportunity to discuss the master plan review, the possible amendment, and the criteria BC Parks was looking for to determine appropriate areas for horse use in the park.
- Meeting notes were recorded
- comment forms were available for people to fill out or take home and mail in

#### Web Site:

- Information on the Strathcona Provincial Park Master Plan review was posted on the BC Parks Website on May 27, 2008, which included the posters used in the Open Houses.
- An online comment form was developed and accessible on the web site from May 30, 2008 to June 20, 2008.

#### E-mail Address:

- A special e-mail address was set up to receive comments - [strathconahorse@shaw.ca](mailto:strathconahorse@shaw.ca)

#### Mail In:

- Letters and comment forms could be sent in to the Nanaimo, MOE office
- There were several letters sent directly to the Environment Minister and the Premier

### Summary of Comments Received by Method

	Open House/ Public Meeting	Emailed	Mailed	Total
Comment Forms	56	28	14	98
General Comments	-	73	20	93
Form Letter to Minister Penner	-	8	1	9
Letters to Minister Penner / Premier Campbell	-	15	-	15
<b>TOTAL</b>	<b>56</b>	<b>124</b>	<b>35</b>	<b>215</b>

## **4.2 Summary of the Public Process**

Approximately 170 people in total visited the Open Houses and Public Meetings offered to the public in Tofino, Courtenay, and Victoria. The 170 people attending Open Houses and Public Meetings and 215 submissions compares favourably with the 2001 Strathcona Provincial Park Master Plan Amendment public consultation which involved over 150 people attending public input events and providing 38 submissions.

Assigning absolute numbers to public comments is neither feasible nor appropriate. It is not feasible because of the broad overlap of comments from the public meetings and stakeholder meeting with the comments and submissions received online or by e-mail, mail, or fax. A number of these were from the same people or were duplicate comments using a standard letter. Assigning numbers is also inappropriate in that it suggests that the consultation was a referendum – which it was not and never will be unless the questions are made available to all of the park owners i.e. the taxpayers of British Columbia. This is not a feasible means for deciding management practices in one park. The public consultation should be understood as an opportunity for interested individuals and parties to provide their preferences and thoughts on the issue of horses in Strathcona Provincial Park. It also provides some information on the relative interest in an issue within several communities and thoughts on BC Parks generally. Public consultation is of considerable use in: providing a venue for public expressions of support or concern; as an opportunity for direct communications between BC Parks staff and park users, and; as an environment for park users to communicate with other park users on a variety of subjects.

## **4.3 Summary of Public Input**

The overall summary of suggestions is listed below in descending order of support. Certain perspectives dominated the results and are identified as “large majority.” “Minority” indicates the lowest in support. Note that most views were primarily – or at least equally – concerned with the Bedwell Valley proposal. The term “commercial development” in this case refers to the broad category of business activities that may include structures (such as corrals and camping facilities), activities such as guided experiences, and authority to modify portions of the park if it is considered to result in minor disturbance to the park and would be of benefit to park users.

## Perspectives:

Horse use only considered in original designated sites *	Large majority
No Horses in Strathcona Provincial Park	
Horses possible in other areas if meet criteria	Minority

No amendment to Strathcona Provincial Park Master Plan	Large majority
Amendment to Strathcona Provincial Park Master Plan needed	Minority

No commercial development in Bedwell (significant number preferred no commercial development in the park)	Large majority
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elitist

effectively restricts use to business – hikers will be deterred from use because of conflicts with horses, and crowded area

requires structures

sets precedent which could lead to alienation of public in other park areas for profit

Commercial development in Bedwell	Minority
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provides and maintains access for public

provides tent platforms for public use

will involve repair of currently damaged trail and bridges

\* - a large majority specifically preferred no horse use in Bedwell Valley.

Most common comments (potential criteria) regarding horses focused on their negative impacts:

- damage/mess trails (unsuitable for temperate rainforest environment)
- introduce invasive species
- damage watercourses
- disturb/displace wildlife
- conflicts with other users
- necessitate structures e.g. corrals/camps/large parking areas for trailers

Note that selected sample comments are included in Appendix A. All public comments are available on the BC Parks Website.

## 5.0 Evaluating Issues and Options for Horse Use

Determining criteria for horse use in the park will be influenced by concerns provided by the public, by a literature review conducted by as part of the Level 2 impact assessment project (discussed in this report in Section 5.3), by additional literature reviews, and by discussions within BC Parks. A key determinant in considering criteria is absence of models for the specific conditions found in Strathcona Provincial Park. To a significant extent, the Strathcona Provincial Park criteria will be unique in addressing horse use in a temperate rainforest.

### 5.1 Discussion Regarding Horse Use Issues in Strathcona Provincial Park

The following discussion is based on issues identified by the public and literature reviews. The conclusions are those of the author.

#### **ENVIRONMENTAL ISSUES**

Environmental concerns are the first consideration of any horse use. Environmental criteria are the tools for ensuring that any horse use will be sustainable; in this case, sustainability is defined as activities that will not endanger the park ecosystems.

**ISSUE:** damaging trails (unsuitable for temperate rainforest environment)

The first and most troubling concern is the near absence of literature on horses in a temperate rainforest environment. This strongly suggests that the activity is rare because:

- it is not appealing to equestrians,
- it has unacceptable impacts on a site, or
- a combination of these two factors.

Common sense and experience suggest that a large, heavy animal such as a horse, whose movements are partly controlled by the rider and partly by the terrain, is inappropriate on narrow trails in areas of high precipitation with steep slopes and shallow soil. This would be a recipe for severe erosion and other trail damage. Horse droppings are also significant in size and a deterrent to hikers. Addressing each element individually, we conclude that horses should NOT be:

On narrow trails (defined by the author as less than 2m width) because of their tendency to step outside of the trail to aid their stability or avoid the horse ahead or behind

The coastal (wet) side of the park is an area of high annual precipitation. In some substrates, high precipitation may create supersaturated trails, which accentuate erosion and may cause the horse to leave the trail to find better footing. Strathcona Provincial Park does not have its own weather stations but a comparison of the relative climate of Tofino and Campbell River show a clear pattern. Tofino averages 3.3 metres of precipitation (98% in the form of rain) per year with an average 99 days a year with at least 10 mm of rain. Campbell River, on the other hand, averages less than half that volume: 1.4 metres per year of which 91% is rain. Average number of days (42) with precipitation over 10 mm is also less

than half of Tofino. Obviously, Strathcona Provincial Park itself is one of the obstacles that reduces precipitation on the east coast of the island but the general trend of highest precipitation on the west side and lowest on the east is consistent in the park as well. In areas of steep terrain – BC Parks horse trail standards suggest no more than 15% – where erosional impacts would be increased.

ISSUE: introduce invasive species

Viable seeds of invasive species can be introduced into a park via transport on a horse's hair or hooves. More effective is the release of non-digested seeds in the horse's dropping as these seeds are embedded in organic material, which provides them with excellent nutrients for growth. It should be noted that invasive species are also spread by human clothing – particularly on shoes – and on vehicles, tents and other gear, or by the wind, or in bird or mammal droppings, or in the case of aquatic invasives, on boats and their associated gear, etc.

The common way of reducing this risk with horses is by requiring them to be fed sterile food prior to, and during their visit to the park.

ISSUE: damage watercourses

Many of the small creeks (permanent and intermittent) in Strathcona Provincial Park lack bridges and require fording to get across. Concerns have been expressed that horses damage these creeks by disturbing the bottom gravels – which could affect fish spawning – or by urinating in the water. We are unaware of any studies that confirm or disprove this and suspect that, like studies on rats for toxicology, it would require a very large number of horses passing through on an extremely intense rate before an impact could be identified. We must note that many animals ford these streams, including humans.

By far, the more significant potential impact of horses is in the riparian areas, which form the edge of the watercourses. Vegetation in this area is critical to both terrestrial and aquatic life by providing food and homes for many organisms, a level of stability for the soil, and shade for juvenile fish and other organisms. The latter applies whether the riparian shrubs and trees are standing or have fallen into the water. These areas are already protected in British Columbia under the BC Forest and Range Practices Act. The buffer requirement varies with presence of fish, channel width and location to community watersheds but even streams greater than 1.5 metres have a 30-metre management zone.

ISSUES: disturb/displace wildlife

There is little information regarding the impact of horses on other non-predatory wildlife unless there is serious competition for food sources which would limit availability to wild grazers and browsers, or, native wildlife was drawn to the horse feed provided by humans which could easily lead to habituation.

Attacks on horses by predators, e.g. bears, cougars, wolves, coyotes, are quite rare as horses are large animals, which can escape effectively, and can defend themselves. We surmise that what attacks do occur might be the result of young, inexperienced predators choosing inappropriate prey or individuals which are driven by extreme hunger. Certainly, in parks where horses and large predators are frequently in the same area, e.g. rocky mountain parks, attacks on horses are extremely rare.

The most important factor to consider in this regard is that horses in a park are not grazing in areas remote from humans. They are in situations where humans are nearby. There are few incidences of carnivores attacking horses in wilderness areas.

ISSUES: mitigation

Mitigation, as used in park management, can be defined as: “the action of lessening in severity or intensity.” Assessing potential impacts and determining whether these can be reduced to an acceptable level is a task for park managers. The challenge lies in determining where and when the mitigation is to the benefit of the resource. For example, a bridge can be built, through the expertise of engineers, which would mitigate impacts on a river but this does not address the appropriateness of having a bridge, nor the impacts created by the access provided to new areas. This kind of challenge often results in additional mitigation, which, at some point, must be evaluated as to its appropriateness. In a wilderness setting, development and mitigation must be evaluated constantly to determine the value provided versus the impacts of the mitigation. If extensive mitigation is required, it may indicate that the actions are excessively impacting the natural area.

**RECREATIONAL ISSUES**

Recreational issues recognize that there are social concerns that must be addressed. A park is human construct; human needs must also be met and compatibility established for different activities.

ISSUES: conflicts with other users

Conflicts between other users and equestrians can be considered in three broad categories: physical, aesthetic, and personal. Physical conflicts refer to events such as: hikers having to step off the trail to allow horses to pass; encountering trails which are damaged or wet because of horse use, e.g. ruts or deep puddles, erosion along the trail edges, etc.

Aesthetic conflicts can result from events such as: hikers having to use wide, naturally hardened, or gravelled trails which reduce their sense of wilderness, encountering regular horse droppings on the trail, etc.

Personal conflicts reflect the fact that some people simply do not like horses – they may be frightened or unnerved by such large animals – or just do not feel that horses should be in a wilderness park. For these individuals, encountering horses lessens their quality of experience in the park.

The common solution to these conflicts, in parks large enough to provide the space, is to physically separate hiking trails from horse trails – a solution that is generally preferred by both parties. This applies in areas where both activities are permitted.

ISSUE: Facilities, e.g. corrals/camps/large parking areas for trailers

Significant space and some structures are necessary where horses are to be used for overnight rides. These may include corrals, line posts, and an area for tents. Depending on the size of the group, these facilities could take as much as an acre and are necessary if the horses are not allowed to graze (Equestrian Design Guidebook for Trails, Trailheads and Campgrounds, Hancock et al 2008)

In the larger interior parks in BC and Alberta, this is not usually an issue but in areas where reasonably flat terrain is relatively rare, and forest must be removed to create an area of suitable size, it is an issue.

## **OTHER ISSUES:**

### ISSUE: Amendment to Master Plan

A surprise from the public consultation was the rigid objection from many to any amendment of the master plan – this, in spite of the fact that it has already been amended once. Only a couple of serious efforts were made by anyone to explain that the master plan has already dealt with the issues but these were not convincing. No-one – except ourselves – suggested that an amendment could include a statement that simply disallows horse use in Strathcona Provincial Park. In the absence of any rational evidence that the master plan and its amendment state that horse use is not permitted in the Park or that the initial sites suggested were meant to be the only sites that would be considered, it can only be assumed that the detractors assume that the only reason for an amendment would be to allow the Bedwell proposal to proceed.

Few recognized that master plans – unlike acts of parliament – are guiding documents and are assumed to be modified in response to new situations or initiatives. This sense of a living document is included in the 2001 amendment introduction:

“In summary, the master plan and this amendment will guide park management now and into the future. Review of the plan may occur in response to specific issues that were not foreseen by the plan and require greater public review.”

### ISSUE: Criteria

One important goal for this consultation was to acquire input for criteria in order that decisions regarding horse use would not be based simply on opinions, be they park or outside group-based. Criteria are seen as the tools for providing a level playing field and the basic information that would strongly influence any decision. A number of people did offer possible criteria. Other groups and individuals provided suggestions that imply criteria. All were considered.

### ISSUE: A Commercial Operation

The inappropriateness of commercial operations in BC Parks was brought to the table on many occasions. Some disagreed with this practice on a personal level – they simply believe that the parks should be for everyone rather than some areas being exclusively for business. This remained as a deterrent even when they were informed that commercial operations have existed in parks for at least 40 years and approximately 20 are occurring in Strathcona Provincial Park.

The more focused comments on commercial operations specifically targeted the Bedwell proposal. A number of concerns were socioeconomic objections: the company making the proposal was rich; the horse use would make them richer; and, the charge for the horse excursions was too high for the “average Joe”. These are internal perceptions for which no comment is offered other than to note that the economics of the proposal are not in the mandate of this project.

There are two commercial-based issues that are significant enough to be analyzed and which have been separated as individual issues.

ISSUE: Exclusivity

The issue of exclusivity is a legitimate concern with exclusivity defined as “the right to use an area of the park, which then is not available to the general public.” As such, there needs to be a clear rationale for such a decision which establishes the benefits to all – including the general public in some form e.g. improvements to the facilities based on park revenues from the operation; addition of new land and/or facilities for public use. In practice, exclusivity as defined here (removing an area from public use) is rare in BC Parks; exclusivity primarily relates to businesses, e.g. right to provide commercial guided tours in a particular area.

ISSUE: Sustainability

Sustainability, for this discussion, is defined as activities that do not negatively impact the park. In the case of commercial operations, the requirement for bonds is to ensure that, should the business fail or choose to discontinue its operation, the agency will have sufficient funds provided through the bond to restore, repair or otherwise manage the site. These situations can occur as a result of the operation being economically unviable, as a result of natural processes damaging the site beyond an acceptable reconstruction cost, or changes in the adjacent areas which limit the appeal and revenues of the original site. In the case of public use, bonds, of course, are not required so the onus on maintaining sustainability falls primarily on BC Parks.

ISSUE: Activities and Access

A recurrent theme in the public consultation was that Strathcona Provincial Park was primarily wilderness, that wilderness was best protected and conserved by minimal impact activities, and that minimal impact consists of hiking (and, apparently, rock climbing). In a converse way, wilderness hiking is “elitist” in the same way as expensive guided horse trips are “elitist”. Both are only available to certain members of the public. Some participants noted that, for physical reasons, horses are the only way that they are likely to see much of Strathcona Provincial Park. Their argument was that effectively requiring that all visitors to be healthy and fit to experience the park was unfair, and in particular, unfair to older visitors who have paid, through their taxes, the most into the creation and maintenance of the park.

ISSUE: Resources

Many participants in the public consultation recognized, and stated, concern about the modest budget that BC Parks operates under. A number suggested/demanded that this funding increase. There are two major elements of this concern that reflect on the horse use issue:

How thoroughly will BC Parks be able to monitor the construction and operations in any horse area...or hiking areas (though not specifically mentioned) for that matter? It is usually easier to manage commercial operations than individual activities: commercial operators are, by nature, undertaking programs that repeat daily or at least weekly; commercial operators have very good reasons to meet requirements as some or all of their revenue depends on doing so, and; commercial operations are often intensive summer operations which mean scheduling is detailed and available.

Limited funds lead to improvisation and opportunistic partnerships. Concern exists that BC Parks is “trading” public land for economic benefits and for development of facilities that should be developed and maintained by the government. Some groups have volunteered to repair the existing challenges themselves, particularly if materials can be donated or funded by BC Parks.

## 5.2 Concerns Identified by the Public

Determination of criteria for accessing horse use in Strathcona Provincial Park will be influenced by criteria identified, and concerns voiced, by the public. The following is a summary list of criteria-related concerns drawn from the public surveys regarding horse use in Strathcona Provincial Park. Note that the concerns are largely similar between those opposed or supportive of horse use

<b>From People <i>supportive</i> of Horse Use</b>	<b>From People <i>opposed</i> to Horse Use</b>
Clean up excrement	No trails in sensitive areas or areas where substrate is too soft and will become muddy
Provide buffer zone along creeks and rivers	Minimize wildlife impacts/interactions
Walk over rivers via bridge, not through	The area is too wet
Use of pellets not hay	Introduction of invasive and non-native species into the park via horse feces
Use abandoned logging roads out of watershed areas – no deep muddy areas, no slippery mountainsides, too steep of climbs; need good drainage	Bringing trails up to road standards for horse use is inappropriate in wilderness areas
Weather permitting (seasonal use)	Not consistent with wilderness values
Monitoring system to avoid exploitation, increase safety, minimize impact on environment	
Separate hiking and riding trails; ATV and other users	
Hard road-based trails only	
Designate separate horse and people areas and trails	
Not on narrow or steep trails	
Intensive recreation zone only, not in the wilderness recreation zone	
Need to do more impact assessments regarding the ecology of the area and wildlife impacts with increased use	
No use of machinery to build infrastructure (trails, etc.)	

From People <i>supportive</i> of Horse Use	From People <i>opposed</i> to Horse Use
No Trace philosophy that is published by the Backcountry Horseman's Association	
Removal of all feces out of the park	
Only allow horse use in already designated areas	
Limit where access takes place to limit impact on access routes used by hikers	
Horses must not feed/browse on vegetation	
Keep out of wildlife corridors	

### 5.3 Strathcona Provincial Park Level 2 Impact Assessment

Concurrent with the Strathcona Park Master Plan review, a Level 2 Impact Assessment was undertaken by Forsite Consultants Ltd. for BC Parks (*Strathcona Provincial Park Level 2 Impact Assessment Horse Use in Bedwell*). The Level Two (L2) Environmental Review was primarily focused on the proposed horse use in the Bedwell Valley but also includes general information gathered from a variety of sources to provide possibilities for criteria specifically for Strathcona Provincial Park.

#### Possible Criteria

The following draft criteria are intended to provide high level guidance to the protected area management planning process regarding key biophysical factors that require consideration when entertaining proposed horse use. These criteria can be used to provide guidance to commercial interests, public users and protected area managers as zoning and/or new proposals for horse use are developed, debated and approved or declined.

The following criteria pertain to all trails and other improvements or areas of use associated with any horse use proposal

- avoid lengthy steep trail grades
- avoid wet soils
- avoid clay or silt dominated soils
- utilize old roads/trails where possible
- avoid use of bare soil trails
- do not locate trails in areas where adequate drainage control can not be guaranteed
- avoid areas of conservation importance, ecological sensitivity, high value fish/wildlife habitat

These criteria have been drafted in response to the potential impact of horse use within a given protected area. Each of these criteria, if not met, will have impacts that can be mitigated to some extent based on design, construction, and operations/timing.

The following notes represent management practices and approaches to horse use within protected areas that have been used to develop the above criteria. Additional related literature is included in the L2 draft report. Findings of the impact assessment process implemented in Bedwell River Valley have also been considered in the development of the above criteria. The following provide information from the literature, which specifically included criteria for horse use.

### **General:**

(Newsome et al, 2002)

- Confine horses to specified trails.
- Exclude from areas of conservation significance.

(Widner and Marion 1993)

- Avoid wet or highly erodible slopes, excessively steep slopes, and fragile vegetation, alpine meadows.
- Use established road beds or harden trail surfaces with gravel application. (Forsite study, numerous references.)

(McClaran 1993)

- Avoid mountain meadows or confining stock in sensitive areas like riparian areas for corralling.

### **Trail Location:**

(Aust et al 2005)

- Dense trailside vegetation prevents trail widening.
- Lowest erosion is from trails with high slope alignment angle, ie >50%. Side hill trails are best but more expensive to construct.
- Best soils are loamy and sandy-loam with high coarse fragment content, and depth to bedrock >1m.
- Avoid soils high in silt and clay.
- Grade should be <8%; maximum 10% for 200 ft.
- 6 inches gravel minimum.
- Ensure adequate drainage.
- Inspect at least 1-2 times per year.
- Minimize number of stream crossings

(Marion, 2006)

- Use criteria from Marion's paper for gravel application related to grade (ranges up to 12 inches), incorporate geotextiles as needed..

### **Vegetation:**

(McClaran 1993)

- Use certified sterile feed where invasive plants are a concern

(Beninger-Traux et al, 1992, Potito and Beatty, 2005)

- Spread of exotic weeds less likely under canopied forest cover than open areas, especially ones with disturbed soils

## **Wildlife:**

(Hellmund, 1998)

- Identify the zone of influence for the proposed trail location: know the habitat and species present.
- Rank the resiliency of the habitat and vegetation complexes and avoid low-resilience routes.
- Identify the wildlife activities such as calving, breeding, foraging and resting; sensitive wildlife group sizes and age.
- Determine high impact seasons for wildlife and time horse use to avoid these or re-route trail.
- In high quality habitat: ensure trails are low density or re-routed to skirt the habitat.
- Avoid small patches of species-rich habitat.
- Vegetation along trail edges may provide an effective screen to reduce stress on wildlife.

(Wisdom et al, 2004)

- In areas of elk use, identify the linear distance of trails vs. the total area of watershed available and of value to elk, as elk may habituate to horse presence on the trail and use alternative habitat

## **Water / Riparian:**

(Wood, Gene, undated, National Trails Training Partnership, Wildlife and Environmental Issues, Recreational Horse Trails and Water Quality Protection, Clemson University)

- Minimize riparian crossings but have sufficient close proximity to water for horse use and aesthetic pleasure for trail users.
- Crossings and trail locations need to address fisheries and water quality values to prevent negative impacts on water quality and aquatic life

## **Management and Social Factors:**

(Newsome et al, 2004)

- Horse impacts are greatly increased with overnight use. Consider day-use only where social concern and/or environmental impacts are potentially high.

(Newsome et al, 2002)

- Use operators under permit rather than unrestricted horse use as in Australia's Shannon Park example: permitted operators can respond to negative impacts, provide ongoing monitoring and assessment of baseline conditions, exert direct control over user numbers and areal extent. Operator is accountable or faces permit suspension.

(McClaran 1993):

- Establish Limits of Acceptable Change (LAC) - a planning and decision framework - and ensure monitoring objectives are objective and simple, and can yield consistent results when gathered by different people. Ensure consistent place and season for monitoring
- Allow LAC and monitoring results to evolve under an adaptive management approach.

(Newsome et al 2004).

- Ensure proper machinery is available for trail maintenance; e.g. narrow grade equipment.
- Ensure management has sufficient budget and resources in place to monitor and enforce compliance.

## **5.4 Additional Issues and Options from the Literature**

All of the information and citations in the following section are drawn from:

### **Equestrian Design Guidebook for Trails, Trailheads, and Campgrounds, 2008**

Written by: Jan Hancock, Kim Jones Vander Hoek, Sunni Bradshaw, James D. Coffman, Jeffrey Engelmann

Hancock et. al. cite Baughman and Serres (2006) of the University of Minnesota Extension recommend a clearing width of 12 feet (3.6 meters) on two-way trails or trails with heavy use.

Double-track tread is usually a converted vehicle trail 2.5 to 3.6 m.

#### Site Conflicts

If recreation user groups are not fully compatible, safety may become an issue. For example, many children are not horsewise. They may play in ways that startle horses and mules. Adults who are not familiar with stock might unintentionally create problems as well. People, stock, and facilities could be harmed in such situations. Riders appreciate separation from other users in campgrounds, at trailheads, and at trail access points. Landforms, roads, streams, drainages, and vegetation can be used for separation.

#### Manure Disposal

Horses and mules produce lots of manure. The manure can attract insects and it's probably smelly. The appropriate manure disposal system for a recreation site depends on the site's proximity to solid waste disposal facilities, the costs of disposal, and applicable health regulations. In some areas of the country, especially in remote areas, manure cleanup may not be customary. Some land managers suggest scattering manure in vegetation around the recreation site. Many places prohibit this practice because it encourages the growth and spread of weeds.

#### Water Quality

Equestrian trails, trailheads, and campgrounds that are poorly located or improperly designed can cause erosion that deposits sediment in streams, harming fish habitat and water flow. Sedimentation occurs every time an animal steps in a stream. Prolonged sedimentation can reduce roughness along the stream bottom and decrease water depth

### **Planning and Design Considerations**

- Consult soil scientists, hydrologists, or engineers to locate water crossings.
- Use bridges or stabilized water crossings.

- Locate trails and roads so topography and grades restrict destructive runoff. Use appropriate construction and drainage techniques.
- Plan trails so users will go slower in sensitive areas. For example, incorporate trail curves in such areas instead of long straight segments.
- Use a trail design that constricts trail users to a designated tread to minimize the tendency of stock to create *braided*--or multiple--trail treads.

### Horse Manure

The beneficial uses of manure as fertilizer are well known--ask any gardener or farmer. However, in recreation areas and on trails manure may be unwelcome. Users may wonder whether horse or mule manure poses significant health risks to humans. There are no definitive answers, but studies are proposed or underway to examine manure's role in water pollution, insect breeding, pathogen transfer, and distribution of weed seeds.

A lot of the manure produced by stock is concentrated at predictable places, including trailers, confinement areas, and trailheads. Because horses and mules often defecate in the first one-half mile (0.8 kilometre) of a trail ride, consider providing two short trail segments from the campground to the main trail--one for riders and one for other users.

Some equestrian groups foster a stewardship attitude by cleaning up after their stock where signs are posted and convenient containers are provided. In other places, such as wild land areas where use is low, cleaning up is not customary. Posting signs asking riders to clean up after their stock may not be effective, especially on trails. Programs that involve planners, managers, and all trail users--not just riders--may be useful for finding effective solutions and changing local Trail Talk attitudes. Enforcement efforts may be considered until riders become familiar with the policies. Some jurisdictions classify manure as a solid waste and have regulations regarding disposal.

### Manure and Human Health

Adda Quinn investigated current literature to write *Does Horse Manure Pose a Significant Risk to Human Health?* (2001). She states: "Horse guts do not contain significant levels of the two waterborne pathogens of greatest concern to human health risk, *Cryptosporidium* or *Giardia*, neither do they contain significant amounts of *E. coli* 0157:H7 or *Salmonella*. Fungus, viruses, bacteria and worms found in horses have never been shown to infect humans, and are unlikely to be zoonotic [*transmittable from animals to humans*]." Quinn cites numerous scientific studies and resources to support her conclusions.

Horses and mules leave significant amounts of manure on trails each year, some of which washes into streams. Few studies have looked at whether horse or mule manure can transmit pathogens to humans. A study conducted at the University of California, Davis, Medical Center by Robert Wayne Derlet, M.D., and James Carson, Ph.D., (2004) looked at the prevalence of human pathogens in horse and mule manure along the John Muir Trail. According to the researchers, "Pack animal manure commonly encountered by backpackers on Sierra Nevada trails contains large numbers of...bacteria normally found in animals. Human pathogens with potential medical importance are present but have a low prevalence."

### Spreading Non-native Seeds

Horses and mules are often thought to be an important source of weed and non-native seed introduction along trails, but the evidence is largely anecdotal. The American Endurance Riding Conference funded a study to examine the issue. Stilt T. Gower, Ph.D., of the Department of Forest Ecology and Management at the University of Wisconsin-Madison determined that "while there are seeds from weeds and non-native species in horse manure and hay, the plants that result don't survive or spread on trails. Therefore, horses do not appear to be a major source for the introduction of non-native species...native and non-native plant species rarely become established on horse trails because of the adverse effects of harsh environmental conditions and frequent disturbance on seedling establishment." The article, *Do Horses Spread Non-Native Plants on Trails?*, is available on the web.

### Soil Erosion and Root Damage

Trail stock generates many pounds of pressure on the ground under each hoof. Stock tied to high-lines, trees, and shrubs for prolonged periods will compact the soil, possibly damaging root systems. Horses and mules may circle repetitively when they are bored or anxious, creating a doughnut-shaped area of disturbed soil. Other nervous stock paw trenches. Post signs with educational information about stock tethering. When riders are well informed, they can minimize impacts. A regular maintenance program may be able to address problems before they become serious.

### **Planning and Design Considerations**

Choose locations for concentrated stock use carefully, evaluating soils and vegetation for vulnerability to damage or disruption.  
Locate hitch rails, horse areas, pull offs, and viewing areas away from fragile soils and vegetation

### **BC Parks Facility Standards**

(Section 3.2, Horse Trails)

The following information is extracted from the BC Parks Facility Standards. The complete Standards for Horse Trails are included in Appendix C.

#### Type I Trails

- plan 1-15 km routes for day use only,
- use a gentle uniform gradient and a well compacted surface,
- consider crushed stone surfacing unless soils are suitable for high use levels,
- plan as high use trails near campgrounds and major trailheads,
- consider designing to accommodate winter use,
- provide for short exploratory rides,
- design to accommodate a steady flow of two-way horse traffic during peak periods of use.
- Intensive Recreation Zone
- Natural Environment Zone

### Planning

- Design the trails for the safety of both riders and the horses.
- Use any trail layout form depending on the terrain conditions. Use additional loop or spur trails to increase the distance and provide a range of terrain conditions.
- In general, plan loop trails for day-use riding, and loop or linear trails for long-distance trails. Integrate day-use loops long-distance linear trails where appropriate. Use loops as alternate routes around wet areas in the spring or around sensitive wildlife areas in the fall.
- Design day-use trails to range from 5 to 15 km depending on the terrain and user ability. Long-distance trails may cover several hundred kilometres.
- Provide access to drinking water at least every 15 km. Refer to Ministry of Health regulations on water sources.

### Grades

- Plan trail routes with a desirable range of grades between 0-10%. Do not exceed a maximum sustained grade of 15%. Avoid grades steeper than 20% over a maximum distance of 30m.
- Design long climbing turns in preference to switchbacks. If switchbacks are used, design the curve radius to a minimum of 2 metres. Design grades of 10% to 15% leading to and from the curve to discourage shortcutting. Use rock or log barriers for a distance of 6 to 10 metres back from the turning point.

### Clearing and Tread Width

- Clear vegetation to a height of 3 m above the tread surface, and a minimum width of 2.5 m.
- Match the tread width to the terrain conditions and type of equestrian use.
- Use a tread width of 45 cm to 1 m for average trail conditions.
- If the trail passes through hazardous side slope areas, use a tread width of at least 1.2 m to 1.5 m, to be safe for horse and rider.

### Tread Surfacing

- Provide a fairly even surface free of rocks or roots that cannot be covered.
- Use additional surfacing materials in areas with fine textured soils or intensive use. Consider wood shreds in place of wood chips. Alternatively, use gravel or crushed stone mixed with the existing soils. On intensely used bridle paths, use crushed stone as the preferred surface material.
- On steep side slopes, place rocks or logs along the outer edge of the tread to prevent sloughing of the trail edge.

### Structures

- Equestrian trail staging areas require circulation and parking for horse trailers, corrals, hitching posts and water supply.

- Provide a suitable size of horse corral depending on the type of staging areas and amount of use. Smaller corrals with separate stalls for small groups of animals are healthier for horses than large corrals that house many horses.
- Rely on stream fords rather than bridges for stream crossings, provided the velocity and depth of the water is acceptable during the normal use seasons. Water depths of not more than 60 cm are safest. Locate trails to cross acceptable natural fords.
- Improve the ford by constructing a minimum 1 m wide base from which large rocks have been removed and the stream bottom levelled to make a relatively smooth crossing.
- Design bridges to support the maximum number of loaded horses that may occupy the bridge at one time. Provide secure footing, for example with flattened logs.
- Cover culverts with a thick layer of soil or granular fill to prevent hollow sounds when horses are crossing. Cover corduroy with soil or other surfacing material to create an even tread.

### Notes

- Horses can damage trails in wet areas. Once a trail becomes muddy, further damage occurs as horses detour to the sides of the trail. Wherever possible, locate routes in stable well-drained soils. Trails on side slopes require adequate drainage facilities. If wet areas must be crossed, use bridges or fill to prevent mud holes.
- Plant distribution and succession along trails and in grazing areas is disturbed by browsing and trampling. Imported feeds encourage the establishment of non-native plant species. Educate users and employ regulations if required to discourage grazing along trails and at campsites. Provide corrals at campsites and require users to pack in feed.
- Prohibit horse access to sensitive areas. Provide tethering places at the entrance to the foot trails.

## **5.5 Summary: Issues and Options to be Considered for Horse Use**

The following list of issues and options include management directions and other concerns which may or may not relate to criteria. The section pulls together issues that need to be considered and options drawn primarily from researchers in other geographical areas. Note that some of the options have been created for this park alone as no sources were found that address the high precipitation in the temperate rainforest - a very relevant concern for Strathcona Provincial Park. The goal of this section is to provide information that may assist in determining criteria.

### Trail

- Trails should use existing roads with largely intact roadbeds and minimal revegetation (i.e. forbs and some shrubs). This may ensure that horse use takes place in an area that is already disturbed and requires only minimal construction - in case no new trails are being considered. Old roads meet these criteria well - if, for example, there are numerous washouts or a few major washouts, the road will not meet the criteria of being a "largely intact roadbed."

*Source: Newsome et al (2002), Hancock et al (2007)*

- Trail bed should have a minimum depth of 15.25 cm – the commonly preferred material is crushed rock with fine but other aggregate would be considered.

*Source: numerous sources*

- Keep trail range of grades between 0-10%. Avoid exceeding a maximum sustained grade of 15%.

*Source: BC Parks Horse Trail Standards*

- Horses can damage trails in wet areas. Once a trail becomes muddy, further damage occurs as horses detour to the sides of the trail. Trails should be located in stable well-drained soils.

*Source: BC Parks Horse Trail Standards, numerous other sources*

### Environmental Sensitivity

- Horse use should not be considered in the Wilderness.

*Source: Specific situation in this park – public input derived.*

- Riparian areas\* - land adjacent to water with different vegetation and high biodiversity - should be avoided, and should only be used for short transitions from one non-riparian to another non-riparian area.

\*More comprehensive definition of riparian included in an appendix

*Source: Newsome et al (2002), Hancock et al (2007)*

- Mitigation requirements should be minimal

*Source: Situation in this park- public input derived.*

- Trails should be assessed for environmental impact on an on-going basis

*Source: Hancock et al. 2007*

- Horse use should not be permitted during times of high precipitation - potentially from October to June

*Source: specific situation in this park. No studies in this climate and topography but many sources state that horse trails should not be in wet areas.*

- Commercial operators should use only sterilized straw and feed

*Source: many sources*

- Day-use preferred as it requires much less infrastructure than overnight use. Common standards for day-use trails are no more that 30 km total (loop preferred); half-day trails no more than 15 km

*Source: BC Parks Horse Trail Standards*

- While day-use only is preferred, overnight stays may be considered if located inside the Intensive Recreation or Natural Environment zones, and the site meets all environmental criteria

*Source: Hancock et al (2007) discusses this in detail.*

### Sensitive Plant and Wildlife Values

- Horse trails should avoid areas that support ecologically important plant communities that are sensitive to trampling.
- Horse trails should avoid areas that support abundant wildlife populations that are sensitive to horse presence or to habitat alterations required to build/maintain horse trails in those areas.

*Source: many sources indicate the need to avoid areas with high conservation values.*

### Fisheries Values

- Forging streams is preferred rather than using bridges for stream crossings, provided the velocity and depth of the water is acceptable during the normal use seasons. Watercourses may be forded if narrow and non-fishing bearing. Water depths of not more than 60 cm are safest. Locate trails to cross acceptable natural fords

*Source: BC Parks Horse Trail Standards*

### Horse/ Human Conflicts

- Trail width at least 3 m; 3.6 m preferred – allows horses to walk two-abreast and creates safe distance for hikers passing by (horses must move to single file when passing)

*Source: Baughman and Serres (2006) recommend 3.6 m on two-way trails or trails with heavy use.*

- Horse manure should be removed from the trail by horse users.

*Source: Hancock et al (2007)*

- The hiking public should have full access to horse trails regardless of commercial operations

*Source: situation in this park – public input derived.*

*The key issues and options can be summarized simply as:*

- A significant majority of the public does not wish to have horse use in the park and particularly in the wilderness.
- Horse trails are significantly different and more complex in design from walking or hiking trails and have potential impacts on the park environment.
- There are virtually no references for horse use in a temperate rainforest so any initiatives will require cautious consideration.

# Appendices

## Appendix A: Selected Public Comments

The following comments are drawn from the many received over the course of the public consultation. They were chosen as representative comments because they are comprehensive and well-written perspectives. These are direct quotes with spelling changes as the only editing. Highlighted (bold print) passages are those of the writers. For reasons of privacy, the writers' names have been withheld.

NOTE: all Public Comments are posted on the BC Parks Website

### ***AGAINST Horse Use and the Strathcona Provincial Park Master Plan Review***

#### **Quote #1:**

"I do not concur with the claim by BC Parks that there is lack of clarity in the documents about whether horse use is a permitted activity in the Bedwell Valley. The MP and MPA are quite specific in naming where horse use is permitted, (west of Gold Lake, the Kunlin area north of the Ucona River, and in the Donner and Oshinow Lakes area) and the reasons for selecting those areas: that they are at the periphery of the Park; that there is little potential for conflict with hikers and wildlife; and there are existing roads that can withstand this type of use.

It is clear from reading the MP and MPA that the public sentiment is that the most important role of Strathcona Park is protection of the wilderness, where native flora and fauna can exist with minimal disturbance by human activities. Opportunities for human recreation must not be allowed to compromise the ecological integrity of the Park, and "management decisions need to be made which first and foremost protect the Park" (MP, Introduction, page 3).

I am opposed to horse use in Strathcona Park for the following reasons:

Horses have a huge negative impact upon the environment, especially in this area where the annual rainfall is so high. Evidence of past horse use and its destructive effects can still plainly be seen in some areas of the Park. Even the hardest trail surface will become degraded and full of mud holes, making it unappealing to hikers and eventually to riders as well.

The manure produced by horses is a very big problem. It is essentially a noxious garbage, because it looks unsightly, it contaminates water and soil, it stinks and attracts flies and it contains viable seeds of non-native plant species. I do not support the notion that, because horse manure is biodegradable, it is not a problem.

I do volunteer work in three Comox Valley parks, removing invasive non-native plant species that, if not controlled, would dominate the habitat and lead to eradication of desirable native species. It is very hard work that needs to be done on an annual basis, forever. It would make far more sense to respect the objectives of the MP and take measures to discourage the introduction of non-native species, because eliminating them once they have become

established is impossible, and controlling them would require enormous resources. Banning horses from the Park would accomplish this objective.

It has been suggested that horses be fed sterilized feed for a period of time before entering the Park to prevent introduction of non-native species, but opinions vary on how long that period should be. And how will compliance be monitored? But even if this mitigating measure were adopted, there would still be horse manure on the trails.

CWR has proposed that its horses would travel along gravel bars in places where roadbed has been washed away. That is absolutely unacceptable. An objective of the MP is to protect the pure, unpolluted quality of waters within the Park. Horses traveling through or across watercourses or along river and stream banks will drop manure that will end up in the water, polluting it and rendering it unsuitable for human consumption, and endangering the myriad of riverine organisms that rely on clean water to survive.

I believe that the most important criterion for horse use in Strathcona Park is no-trace horse use. The no-trace ethic ensures that the negative impact of human activities upon the environment is minimal. It is a standard of behaviour that must be encouraged in all Park users, not just hikers and backpackers.

I believe that horse use is totally inappropriate in the Wilderness Conservation Zones of Strathcona Park.

Since horse use is currently permitted in a few named areas at the periphery of the park, and because the environmental impact is not large because so few riders use the trails, my recommendation is that horse use should remain as a permitted activity in these areas, but only on existing roadbeds that remain hard and stable.

It is clear that the current opportunities for horse use in Strathcona Park are adequate, and horse use in other areas is either necessary or desirable. The CWR proposal will not increase opportunities for the public to ride horses in the Park because the Bedwell River trail is, for all practical purposes, inaccessible to them.

I do not support another amendment to the master plan because I do not believe it is necessary. However, I suggest an addendum – “Horse use in Strathcona Park is not permitted except in those areas specifically named in the master plan and the master plan Amendment” – would serve to clarify the contrived issue of whether horse use is a permissible activity in the Bedwell River Valley.”

**Quote #2:**

“There is ambiguity in the stated purpose of the Public Meetings. In the BC Parks letter it stated that the purpose was to “clarify and confirm areas of the park appropriate for horse use including the Lower Bedwell River Road corridor/trail”, while the announcement in the newspaper stated its purpose as being “to assess the appropriateness of horse use in the park specifically along the lower Bedwell River road corridor/trail.” It was not until we arrived at the meeting that we learned that, in fact, the meeting was to be strictly confined to establishing **criteria** for horse use **throughout** Strathcona Park.

How can the public be expected to participate effectively in the process if they are given such short notice of the meeting, and when the purpose of the meeting is unclear?

Research takes time and cannot be done until one knows the topic. Furthermore, there was no prior press release or other form of communication from BC Parks to provide background information on the reason for the review and to provide clear direction on the input being sought from the public. That might have gone a long way to preventing the confusion and frustration clearly felt by the public at the meeting.”

**Quote #3:**

“Horse use in the Park also comprises some objectives identified in the 1993 Strathcona Provincial Park Master Plan (MP) and 2001 Strathcona Provincial Park Master Plan Amendment (MPA):

MP, page 23; 5.2 Water

Objective: to protect the pure, unpolluted quality of waters within the Park. How pure and unpolluted will those waters be after horses have been ridden along riverbeds or across streams, defecating as they go?

MP, page 25; 5.3 Vegetation

Objective: to eliminate and discourage the establishment of non-native species. How can BC Parks ensure that horses have been fed sterilized feed for a sufficient length of time so that viable seeds of non-native species are no longer present in the animal’s gut? The answer is that they cannot. And what resources does BC Parks have available to eliminate non-native species? The answer is none, as is evident from the amount of Scotch broom flourishing in the peripheral areas of the Park.

We believe the most important function of Strathcona Park is the conservation of wilderness; opportunities for human recreation come a distant second.”

**Quote #4:**

“I am adamantly opposed to amending the Master Plan to permit horse trails in Strathcona Park.

I remain confident that anyone who reads the plan closely – not simply the Plan Highlights, but the plan itself – would come away with a clear understanding that horse use is NOT an activity that the public or the Steering Committee recommended should take place in other areas of the park. To say that the plan is “vague” or “open to interpretation” is patently untrue.

Having carefully re-read the master plan and the plan amendment in their entirety (see the attached summaries), the only reference that may be construed as unclear about horse use appears in a very brief summary – identified as Plan Highlights – which appears on page 12 of the 1993 Park master plan.

This point reads:

“On a trial basis, two areas have been designated for horse riding and other areas will be reviewed. These locations have minimal conflict with other users and can withstand this type of use.”

A casual reader who read only the Plan Highlights may have interpreted the phrase “**and other areas will be reviewed**” to infer there was support for studying the feasibility of horse use in other parts of the Park.

In fact, the plan recommendations clearly restricted horse use to “the new logging road to the west of Gold Lake and on the section of old logging road near Kunlin Lake which provides a connection between horse trails outside the park boundary.” The phrase “other areas” referred specifically to Kunlin, Donner and Oshinow Lake areas.

The plan also states that “.....for policy decisions specific to Strathcona Park, it is necessary to refer to the recommendations in the appropriate sections of this master plan”. (Page 24 of the 1993 Master Plan) – NOT just the Plan Highlights.

I can only surmise that unless there is some other factor at play which has not been publicly disclosed, support for the current frustrating, confusing and poorly conducted public consultation process came about because someone in BC Parks did not take the time to review the detailed recommendations in both the 1993 Master Plan and the 2001 Amendment, and made a decision based solely on what appeared in the plan highlight. I urge you NOT to amend the Master Plan to permit horse trails in other areas of Strathcona Park. I have grave concerns about the process that was used to gather information from which “criteria” is being developed, and the manner in which the consultation process was carried out.

In closing, I am appending comments I presented at the September 2007 meeting of the Strathcona Park Public Advisory Committee. The recommendations and sentiments were supported by the two other public advisory members of the original Steering Committee, Jim Rutter (former executive director of the B.C. Federation of Mountain Clubs) and Anne Fiddick (former mayor of Gold River and former chair of SPPAC).

“The vision that emerged from this lengthy and intensive process supported the recognition and preservation of Strathcona as a wilderness area.

At the time the Master Plan was released, there was a legacy of very strong feeling against any reconsideration of horse use in the park because of the extensive damage that had previously been done to hiking trails.

Because of these concerns and because abundant opportunities existed outside the park, the vast majority of comments received during the consultation process recommended that mountain bike and horse trails be prohibited in the park. Those who supported bike and horse trails recommended that their use should be restricted to areas in the intensive recreation zone, separated from other park users, and to areas that were not subject to environmental damage.

After careful consideration, the Steering Committee recommended that under certain circumstances, horse trails would be permitted in the park, but only in specific, identified areas which had already been alienated and where it was determined the existing road bed was stable enough to withstand the impact. These areas included the logging road to the west of Gold Lake and on the section of old logging road near Kunlin Lake which provides a connection between horse trails. It was also agreed that the potential of the Kunlin, Donner and Oshinow lakes areas to support horse use would be studied.

The issue of allowing trails in other areas of the park was carefully considered and rejected.

We also share the concern that by giving consideration to the current application, B.C. Parks is creating a very dangerous precedent that may be used to rationalize and permit developments which bit by bit, will erode the wilderness values that we worked so hard and long to protect.

All three of us are willing to participate further in discussions on this topic, and look forward to being kept informed about B.C. Parks plans in this regard.”

Having attended the open house and public meeting that took place in Courtenay on May 28, 2008, the stakeholder meeting that took place on May 29, 2008, and meetings of the Strathcona Park Advisory Committee that have taken place over the last 8 months, and having listened carefully to public opinion on this matter, I am even more firmly convinced that there should be no further horse use in Strathcona Park.”

### ***FOR Horse Use and the Master Plan Review***

#### **Quote #1:**

“For the past several months Outdoor Recreation Council of BC has been considering issues related to the use of the Bedwell Valley by horses from the Clayoquot Wilderness Resort (CWR) to access Strathcona Provincial Park across its southern boundary. We have reviewed the concerns raised by groups such as the Friends of Strathcona Park (which is not a member of ORC), as well as other local and regional groups. We have decided that, on balance, the Bedwell Valley should be opened up to use by horses provided CWR agrees to maintain the trail it uses for its horse tours inside the Park. As a result, we recommend that during the Review of the Park’s Master Plan the necessary amendments be made to permit use by horses in this area.

In coming to this conclusion, we have considered the following:

#### **Introduction of Invasive or Alien Plant Species:**

This possible outcome of the introduction of horse feed and manure in the Park has been cited as a reason not to allow horses in this area of the Park. However, we understand that CWR would use standard purging techniques and feed modification to ensure that the diet of horses for periods immediately preceding and during their use of the Bedwell Trail would not introduce alien species.

#### **Erosion of Trails:**

This could be the most egregious outcome of increased use by horses of the trail in question due to the impact it could have on the use of the trail by hikers. We suggest this can be addressed by placing the onus on the commercial user to maintain the trail, or neither it nor the hikers would have a trail to use. Hence the condition for use referred to above.

#### **Level of Traffic:**

It is our understanding that the overall level of traffic in this area of the Park is minimal and that it is unlikely to rise significantly if used by one additional tour operator. We also

understand that additional use of the southern extremity of the Park could be considered to meet the overall objectives of the Park Master Plan.

Reputation of the Operator:

We have been led to understand by local sources that CWR has displayed a responsible approach to preservation of the environment in its sphere of operations. In summary we recommend that the Park Master Plan be amended with a view to permitting and providing for horse use in the Bedwell Valley.”

**Quote #2:**

“I am writing you today because I am very much concerned that the issue of horse use in Strathcona Park will be decided based on who has the loudest voice and the most emotion and not based on science, facts, environmental impact, and recreational values of the park. If the independent environmental assessment indicates that horses can be used in parts of the park with no appreciable impact then horse use should be permitted in those areas. The Park Master Plan contemplates horse use in the park and, in fact, allows horse use in a very limited area. The Plan also contemplates recreational use of the park while maintaining environmental and other standards.

I have done some fairly in-depth research on the subject of horse use and the environment and have forward much of this information to Parks and the consultants working on the project. I have also expressed an interest and willingness to not only help with this decision process but also to help monitor future horse use in the park to ensure it is done in a sustainable way so future generations can also enjoy the park (and other public lands) on horseback.

In summary, I would like to emphasize the following points:

- The park is for everyone.
- Horse use should be allowed in areas if environmental study indicates.
- PUP’s should be considered on their recreational and environmental merits not on who is applying or how much they earn.
- Opposition to a proposal should be measured on its facts and science not on emotion and threats.
- Any use of the park should be monitored to ensure Park values are being maintained and action should be taken to maintain these values.”

**Quote #3:**

“We are writing regarding the recent public consultation process regarding horse use in Strathcona Provincial Park. We first want to commend your ministry for initiating this process to provide clarity around the role of horses in Strathcona Provincial Park. As you know the original Park Master Plan and more recent amendment were both written in a way where different stakeholders could interpret the role of horses and their use in the park differently. Park master plans or management plans are living documents and should, at reasonable intervals, be reviewed, and if warranted updated, over their lifetimes. Commonly accepted theory, frameworks, and methods change over time. Consumer demands and preferences change too. The Clayoquot Wilderness Resort (CWR) application to take horses into the park via the Bedwell Trail presented a new situation, which could not be specifically addressed by the current Park Master Plan. This of course triggered a public reaction and a

debate about whether the Master Plan allows for horses in the park and parks have done the right thing in initiating this process.

Though not intended to be the reason for the public consultation process, the proposal to use the Bedwell Trail on the west side of Strathcona Provincial Park for horse use, is recognized by all stakeholder groups involved to be the impetus and main point of discussion/conflict. This being so we first want to address general issues presented by this proposal and application for a park use permit.

Our parks offer ecological, educational, recreational, scientific, economic, and cultural benefits to domestic and international visitors, surrounding communities and society in general. Stakeholders use and benefit from parks in different ways and each group views tourism from its own unique perspective. But most all value and promote the conservation of natural and cultural heritage in the parks they use. Conservation should take top priority in protected areas, but this does not mean that tourism cannot bring benefits to a park or contribute to conservation. There is a two-way interaction between sustainable nature tourism and the environment upon which it depends. The goals of tourism and contribution to conservation are both attainable. The key is that tourism occurring in parks be subject to an adequate and appropriate management regime. In fact, management is a crucial element for the long-term survival of the environmental and cultural resources upon which tourism depends. Tourism development can be a threat to protected areas, especially when development occurs rapidly, uncontrolled, and without proper planning. If activities are properly designed and managed, it is possible for tourism to be consistent with protected area objectives.

#### *Criteria for Horse Use in Strathcona Provincial Park*

- In general, acceptable activities should be low impact, non-consumptive, promote education and awareness building, and fit with the goals and objectives of the protected area. Appropriate activities often occur in small groups rather than large tours (the exception to this may be school groups arriving for an environmental education program). Pursuits that require, significant infrastructure development, or involve motorized vehicles or large, organized groups are examples of activities that are generally not appropriate or acceptable, except in intensive recreation zones.
- Specific criteria for horse use needs to consider the following guidelines:
- The trails for horse use should be in the valleys and not in the alpine or on ridges.
- Preferable vegetation cover would include second growth forests and disturbed areas, and not old growth forests.
- Trails should be located in areas where roads (and associated forms of development) have already been established.
- Roads and trails should have proper surfacing, design and alignment to allow for proper drainage, control erosion and to avoid tree roots. Trails should have low to medium elevation gains and drops. Trail mats are available to minimize erosion from horse foot placement in muddy or boggy areas.
- There should be a means of separating pedestrian and horse traffic where trails are narrow and unsafe.
- Horse use should avoid key vulnerable wildlife refuges and areas with species at risk.
- For overnight horse use there will need to be adequate physical requirements to accommodate horses and guests (e.g. space and ground surface/cover to accommodate shelters and corrals where they are not disruptive).
- When evaluating horse infrastructure, the following should be considered:

- Construct the minimum necessary
- Construct to aid visitor/horse management and safety
- Structures should interfere as little as possible with the natural ecosystem
- Structures should not dominate their natural surroundings and should, where possible, reflect local traditions and local materials
- Environmentally friendly design should be applied to construction and functioning of improvements. Consider waste minimization and collection systems.

#### *Public use of infrastructure*

- Park zoning presently determines the location of appropriate tourism development, including the construction of buildings and other facilities related to visitor management and park operations. Note: CWR guests presently stay in tents on wooden platforms, and use composting toilets.
- Feed and grazing - feed will need to be sterilized so that there are no foreign bodies propagating in the park. Manure will need to be managed. Grazing will generally be discouraged.

Group/Horse Management - Horse activity and behaviour will need careful planning and managed for the safety of riders and horses, and minimum impact to the environment. Issues such as group size, trail etiquette and safety, horse control, camp management and trip planning will need to be carefully considered. For example horses should be high-lined (or corralled) at night to reduce damage to tree roots and vegetation. For guidelines and standards we recommend referring to the Trail Etiquette and Safety Best Practices developed by the Back Country Horsemen Society of B.C. We would note that the Back Country Horsemen Society of B.C. do recommend that wilderness horse trips should be undertaken with an experienced guide.”

#### **Quote #4:**

“...the Master Plan needs to be amended and rewritten regarding horse use, whether it includes horse traffic in some areas, or excludes horses from the park entirely. As the Master plan presently reads, regarding horses, the passage is too vague and requires definition.

Regarding present horse use areas in Strathcona Provincial Park, the areas of Gold Lake and Kunlin Lake that were to be used as test sites for horse use; these have been a total failure as a test plot, since there has been little or no horse traffic in those areas. This was likely due to the distance a horse would have to be trucked, for just a day ride and not from lack of interest in the study.

While there has been much speculation and distant information about horse impact, no one has cited any research studies, either in favour or against horse use in an area similar to the lower Bedwell Valley or Oshinow Lake areas. I have yet to see any solid evidence either way, that horses will or will not be detrimental to the Bedwell River Valley. If possible, I would like to see a copy of the Environmental.

Since we won't really know if horse impact would be detrimental, until horses are actually in the park, I would suggest that we try a two year test site period, starting this season. One site could be the Bedwell Valley from the Gail Magee Bridge to the Living Bridge, as this is as far as horses can safely be taken at this time. This would allow CWR to show how

they would use & maintain the area and further, they would need to show how they would make a trail through a heavily washed out area (just before the Living Bridge). While not the full deal, that they are looking for, it would give them a chance to physically show what they profess to do in the rest of the lower Bedwell Valley.

A second site could be the Oshinow, Toy, Junior & June Lakes area in the park, through to Elsie Lake. This could be a multi-day trip on deactivated logging roads, with overnight camps. It would give the BC Horse Council and the Backcountry Horse Association a chance to show their "Leave no trace" methods. It would also be attractive in that it would be a several day destination and may well attract equestrians from further a field.

We should encourage these groups to use these areas, as a test case for results of horse impact and we should then require them to keep accurate records of numbers of horses & riders, numbers of days on trail, length of travel, weather conditions, wildlife spotted and any other pertinent observations to the test. We could provide forms that would be a check list, with witness signature requirements and these survey forms could become the basis of gauging horse impact and mitigation, if horses will be allowed into parts of Strathcona Provincial Park.

At the end of the test period, we could then revisit the possibility of extending the route areas and a longer tenure in the park.

Finally, I feel that I need to make the point that the issue of horses in the park or the CWR tenure application is not necessarily a "thin edge of a wedge" as some feel. We already have a large commercial enterprise sitting adjacent to the park and they have developed trails into the park, charge people fees to use them, guide paying clients on these trails, restrict free public use of these trails, use machines to make these trails and patrol these trails with motorized vehicles. This is the cross-country trail system that Mt Washington has created in Strathcona Provincial Park, yet I have never heard of anyone referring to this operation as a "thin edge of a wedge". How many people that oppose horses in the park, use these commercial trails in the park? Is this a contradiction of principals? Can we deny one commercial proposal that we might not use or agree with and then turn around and support and use another commercial enterprise, just because it suits us?"

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## **Appendix C: BC Parks Facility Standards: Horse Trails**

### Type I Horse Trails

- plan 1-15 km routes for day use only,
- use a gentle uniform gradient and a well compacted surface,
- consider crushed stone surfacing unless soils are suitable for high use levels,
- plan as high use trails near campgrounds and major trailheads,
- consider designing to accommodate winter use,
- provide for short exploratory rides,
- design to accommodate a steady flow of two-way horse traffic during peak periods of use.
- Intensive Recreation Zone
- Natural Environment Zone

### Type II Horse Trails

- plan 5-30 km trails for day use or overnight trips,
- design as moderate use trunk trails or day use trails,
- use existing soil surface, except where surfacing is required to cross wet or fine textured soils areas,
- not normally designed to accommodate winter use, except as snowmobile route
- Natural Environment Zone
- Wilderness Zone

### Type III Horse Trails

- plan 30-50km trails in low use areas, multi-day duration trips,
- low standard routes beyond trunk trails,
- not normally designed to accommodate winter use,
- Wilderness Zone

### Layout and Length

- Design the trail using criteria for day-use bridle paths or long distance routes used by pack and saddle stock.
- Design the trails for the safety of both riders and the horses.
- Use any trail layout form depending on the terrain conditions. Use additional loop or spur trails to increase the distance and provide a range of terrain conditions.
- In general, plan loop trails for day-use riding, and loop or linear trails for long-distance trails. Integrate day-use loops long-distance linear trails where appropriate. Use loops as alternate routes around wet areas in the spring or around sensitive wildlife areas in the fall.
- Design day-use trails to range from 5 to 15 km depending on the terrain and user ability. Long-distance trails may cover several hundred kilometres.

- Plan for campsites every 16 to 25 km along the route. Develop campsites to be consistent with the park management zone objectives.
- Provide access to drinking water at least every 15 km. Refer to Ministry of Health regulations on water sources.

### Grades

- Plan trail routes with a desirable range of grades between 0-10%. Do not exceed a maximum sustained grade of 15%. Avoid grades steeper than 20% over a maximum distance of 30m.
- Design long climbing turns in preference to switchbacks. If switchbacks are used, design the curve radius to a minimum of 2 metres. Design grades of 10% to 15% leading to and from the curve to discourage shortcutting. Use rock or log barriers for a distance of 6 to 10 metres back from the turning point.

### Clearing and Tread Width

- Clear vegetation to a height of 3 m above the tread surface, and a minimum width of 2.5 m.
- Match the tread width to the terrain conditions and type of equestrian use.
- Use a tread width of 45 cm to 1 m for average trail conditions.
- If the trail passes through hazardous side slope areas, use a tread width of at least 1.2 m to 1.5 m, to be safe for horse and rider.

### Tread Surfacing

- Provide a fairly even surface free of rocks or roots that cannot be covered.
- Use additional surfacing materials in areas with fine textured soils or intensive use. Consider wood shreds in place of wood chips. Alternatively, use gravel or crushed stone mixed with the existing soils. On intensely used bridle paths, use crushed stone as the preferred surface material.
- On steep side slopes, place rocks or logs along the outer edge of the tread to prevent sloughing of the trail edge.

### Structures

- Equestrian trail staging areas require circulation and parking for horse trailers, corrals, hitching posts and water supply.
- Provide a suitable size of horse corral depending on the type of staging areas and amount of use. Smaller corrals with separate stalls for small groups of animals are healthier for horses than large corrals that house many horses.
- Rely on stream fords rather than bridges for stream crossings, provided the velocity and depth of the water is acceptable during the normal use seasons. Water depths of not more than 60 cm are safest. Locate trails to cross acceptable natural fords.
- Improve the ford by constructing a minimum 1 m wide base from which large rocks have been removed and the stream bottom leveled to make a relatively smooth crossing.
- Design bridges to support the maximum number of loaded horses that may occupy the bridge at one time. Provide secure footing, for example with flattened logs.

- Cover culverts with a thick layer of soil or granular fill to prevent hollow sounds when horses are crossing. Cover corduroy with soil or other surfacing material to create an even tread.

#### Notes

- Horses can damage trails in wet areas. Once a trail becomes muddy, further damage occurs as horses detour to the sides of the trail. Wherever possible, locate routes in stable well-drained soils. Trails on side slopes require adequate drainage facilities. If wet areas must be crossed, use bridges or fill to prevent mud holes.
- Plant distribution and succession along trails and in grazing areas is disturbed by browsing and trampling. Imported feeds encourage the establishment of non-native plant species. Educate users and employ regulations if required to discourage grazing along trails and at campsites. Provide corrals at campsites and require users to pack in feed.
- Prohibit horse access to sensitive areas. Provide tethering places at the entrance to the foot trails.

## **Appendix D: Definition of Riparian**

Riparian areas occur next to the banks of streams, lakes, and wetlands and include both the area dominated by continuous high moisture content and the adjacent upland vegetation that exerts an influence on it. Riparian ecosystems contain many of the highest value non-timber resources in the natural forest. Streamside vegetation protects water quality and provides a "green zone" of vegetation that stabilizes streambanks, regulates stream temperatures, and provides a continual source of woody debris to the stream channel. The majority of fish food organisms come from overhanging vegetation and bordering trees while leaves and twigs that fall into streams are the primary nutrient source that drives aquatic ecosystems. Riparian areas frequently contain the highest number of plant and animal species found in forests, and provide critical habitats, home ranges, and travel corridors for wildlife. Biologically diverse, these areas maintain ecological linkages throughout the forest landscape, connecting hillsides to streams and upper headwaters to lower valley bottoms. There are no other landscape features within the natural forest that provide the natural linkages of riparian areas.

### **Riparian Management Area Guidebook December 1995**

#### Authority

Forest Practices Code of British Columbia Act  
Sections 2, 10-17, 45, 51(d), 62, 67, 60  
Operational Planning Regulation  
Timber Harvesting Practices Regulation  
Forest Road Regulation  
Range Practices Regulation