Skeena District

MANAGEMENT DIRECTION STATEMENT

September 2000

for Exchamsiks River Provincial Park



Exchamsiks River Park

Approvals Page

Forward

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MINISTRY OF LANDS and PARKS

Exchamsiks River Park has been protected since 1956 because of its specifical attendance in old-growth Sitka spruce forest next to Exchamsiks River and its proximity to a major travel corridor. This park was originally established primarily for its recreation values. Recreation and other uses have had significant impacts on the Sitka spruce-salmonberry community, which is now red listed. It will be necessary to define the role for which Exchamsiks Park is being managed within the region's protected area system.

Further consultation with the Tsimshian First Nation may result in the need to amend this plan.

Approvals

District Manager Skeena District Assistant Deputy Minister

Parks Division

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Introduction

Purpose of Management Direction Statements

Management Direction Statements provide strategic management direction for all protected areas that do not have a full management plan. MDS do not negate the need for future, more detailed management plans. Management Direction Statements also describe protected area values, management issues and concerns; management strategy focused on immediate priority objectives and strategies; and, directional statements from other planning processes. Implementation of strategies will be dependent on available funding and agency priorities.

All development associated with these strategies is subject to BC Parks' Impact Assessment Policy

Setting and Context

Exchamsiks River Park covers 18 ha, east of the Exchamsiks River at its confluence with the Skeena River. The park lies immediately to the north of Highway 16, 56 km west of Terrace that has an area population of about 21,000. (See Figure 1 - Park Location Map). The lower Exchamsiks River contains many archaeological sites and is part of the asserted traditional territory of the Tsimshian people.

Exchamsiks River Park, established in 1956 protects one of the last known unlogged old-growth Sitka spruce-salmonberry communities along the highway corridor to the north of the Skeena River. The plant community has recently been red listed. It is surrounded by a 424 ha UREP Reserve, that includes a boat launch, mountain goat habitat and a wide range of ecosystems and the remainder of the unlogged old-growth community. The Kalum LRMP, as of February 2000, has agreed in principle to recommend upgrading the UREP Reserve to Class A park status.

Regional residents and highway travellers use the small campground and day-use area that are both located within an old-growth forest. The park provides access to the Gitnadoix and Skeena River systems, offering internationally significant angling opportunities. Exchamsiks River offers the only camping for 75 km in either direction along Highway 16 (Kleanza Creek to the east; Prudhomme Lake to the west). Lakelse Lake provides full-facility lakeshore camping about 75 km away, south of Terrace on Highway 37.

Extensive analysis has been conducted of the current condition of the red listed plant community and the compatibility of recreation use with its long-term preservation. It has been concluded that the plant community has incurred significant impacts.

A hazard tree assessment conducted in October 1999 identified 20 trees as hazards under existing hazard tree policy.

Protected Area Attributes

Conservation

- Kitimat Ranges Ecosection; 12 ha of CWHvm1/09 (very wet, maritime coastal western hemlock subzone, submontane variant; red-listed Sitka spruce-salmonberry community naturally rare and almost completely logged in the region), and 4 blue listed plant communities. The BC Data Conservation Centre names 18 blue-listed plant species that could potentially be found in the Kalum Forest District. A small number of these could potentially occur in the park
- moderately sized, glacially-turbid river, draining an essentially pristine watershed
- grizzly and black bear habitat (park is part of coastal closed area for grizzlies)

Recreation and Tourism

- access to internationally-significant angling opportunities
- spectacular setting with old growth interpretation and wildlife viewing (mountain goats, bears) opportunities
- shore-based angling for trout and salmon
- accommodation for highway travellers (en route to Prince Rupert ferries)

Cultural Heritage

- many archaeological sites in and near park
- historically, site was a stop for paddle wheelers ("Hole-in-the-wall")
- culturally modified trees are likely present
- the area may have been used by First Nations for fishing purposes

Significance in the Protected Areas System

- protects red-listed old-growth community
- provides easily accessible old growth appreciation and river recreation opportunities (on the Exchamsiks, Gitnadoix and Skeena Rivers) for regional residents and travelling visitors has provided the only camping opportunity along Highway 16 between Terrace and Prince Rupert

Exchamsiks River Provincial Park Locator Map Legend Highways Rivers/Lakes Coastline Exchamsiks River Provincial Park Skeena Parks District **Exchamsiks** River Park Smithers Terrace **Prince Rupert** Kitimat 300 Kilometers 100 200 **British Columbia** Scale 1:6,000,000 Prince George Vancouver



Land Uses, Tenures and Interests

Access

Exchamsiks Park is located immediately north of Highway 16. A road (formerly part of Highway #16) within the park has provided access to the day-use and camping areas.

Existing Tenures

none

Existing Land Use Activities and Facilities

- 8 picnic tables in day-use area, 50 parking stalls
- 20 "pad-and-spur" campsites
- pit toilets, water pump
- boat ramp (outside current park boundaries, maintained by BC Parks)

Adjacent Patterns of Land Use

- surrounded on three sides by UREP Reserve
- bounded on the south by Highway 16, the Canadian National Railway and the Skeena River

First Nations Interests

- part of the asserted traditional territory of the Ginaxangiik lineages of the Allied Tsimshian Tribes—an important area with many archaeological sites
- general concern regarding the management of the fishery resource and spawning grounds
- interested in the protection of cultural heritage sites identified
- interest in a First Nations history panel that describes some of the areas Tsimshian history
- would like to investigate the feasibility of establishing a First Nations Rediscovery Camp within various parks in the asserted territory of the Allied Tsimshian Tribes
- would like to consider the potential of being the Park Facility Operator

Other Agency Interests

- BC Environment has an interest in the resident fishery and in grizzly bear conservation
- Department of Fisheries and Oceans has an interest in the anadromous fishery
- Ministry of Small Business, Tourism an Culture, Archaeology Branch, has an interest in the archaeological sites
- Regional District of Kitimat Stikine has an interest in regional tourism

Private and Public Stakeholder Interests

- recreational users: anglers, boaters
- local residents: Prince Rupert and Terrace communities
- naturalists
- Kalum LRMP Table

Role of Exchamsiks River Park

Exchamsiks River Park potentially serves both important conservation and recreation roles within the British Columbia protected areas system. The park's chief conservation role focuses on protecting one of the last known unlogged old-growth Sitka spruce-salmonberry communities

(very wet maritime coastal western hemlock, red-listed riparian community CWHvm1/09). In addition, four blue-listed plant communities live within the park.

The spectacular old growth setting and pristine river, with outstanding angling and wildlife viewing opportunities, attracts people to stay in the Exchamsiks campground. Apart from a BC Forest Service Recreation Site 6 km off Highway 16, Exchamsiks River Park provides the only camping opportunities between Terrace and Prince Rupert. Unfortunately, the campground and red-listed old-growth community occupy the same space, and recreation activities have impacted the plant community.

The proximity to Highway 16 provides excellent opportunities for educational and interpretative activities in a rare old-growth forest. In addition, Exchamsiks River Park contains the potential for a significant education role related to the presentation of First Nations cultural heritage values and the education of the public about First Nations use within the river corridor. This latter role, of secondary importance at this time, needs much further research and evaluation.

Management Commitments and Issues

Direction from Previous Planning

Exchamsiks River Park has been managed as a Class A Park since 1956. Annual Management Plans provide year-to-year direction. The surrounding UREP Reserve is currently under review with the Kalum LRMP for upgrading to full park status.

Management Issues

The following management issues require attention:

Theme	Issue	
Protecting the red listed Sitka spruce/salmonberry community and other ecological values	 Campground and other human uses have had significant impacts on plant community Continued campground use will provide increased risk to the maintenance of the plant community over the long term 	
Public safety	 Off-season maintenance is unable to keep up with garbage—may lead to habituated bears Hazard trees endanger public and staff 	
Protecting recreational values	Portions of campground flood annuallyCampers enjoy the old growth setting	
Protecting cultural values	Significance of cultural features is unknown	
First Nations values	 Protection of cultural heritage sites (see strategy for "cultural heritage values") Protection of fishery (see strategy for "Natural Values") First Nations History Panel Rediscovery Camp Interest in economic opportunities including Park Facility Operator 	
Park operations	Proposal to include adjacent UREP Reserve in park needs decision by government	
Unauthorised activities	Vandals destroy park facilities causing increased management costs and scar trees increasing the likelihood of tree diseases.	

Management Strategy

The following table describes management strategies to deal with outstanding issues raised. In addition, Appendix I contains a list of acceptable land and resource uses for this park.

Pr	Priority Management Objectives Priority Strategies		tegies
•	Protect the red listed Sitka spruce/salmonberry community and other ecological values	Establish interdisciplinary team Headquarters staff to provide ad Manager and PMC on Exchams would develop an action plan to use for up to 2 years minimizing impacts on the Sitka spruce/sali Within 2 years, develop a long- of the red listed Sitka spruce/sa and recreational use. This plan determine whether or not the closed permanently. establish measures necessa Sitka spruce/salmonberry of assess the need and options campground. prepare a revised manager based on an appropriate levelstakeholder consultation.	of District and dvice to the District siks Park. The Team o continue campground g any environmental monberry community. term plan for protection lmonberry community would: he campground should be ary to re-establish the community. s for relocation of the
III	Support addition of adjacent lands to the park	Continue to provide technical s LRMP	support to the Kalum
	Protect the park's recreational values and establish appropriate levels of recreational uses.	Develop recreational use plan/s maintain trails, boat launch etc.	
11	Protect the park's cultural heritage values	Investigate and collate existing heritage values; prepare Cultura Summary and Management Pla Tsimshian	al Features Information
•	Work with First Nations to facilitate their participation in park management	In conjunction with the Allied Ta First Nations History Panel we Entertain applications for rediscontrol Highway Parks in asserted Allied territory. First priority should be sites outside of parks and then a MDS and park development ob conservation and safety issues it unsafe to permit this use at Excontrol When the park facility operator advertise the contract in the loc provide a copy of the bid packat Tsimshian Tribal Council	hen funding permits covery camps within ed Tsimshian Tribe e to identify and utilize consider parks subject to jectives. Due to it may be impractical and hamsiks. contract is up for bids al paper and endeavor to
•	Ensure public safety	Implement measures to reduce staff while protecting ecological long term	

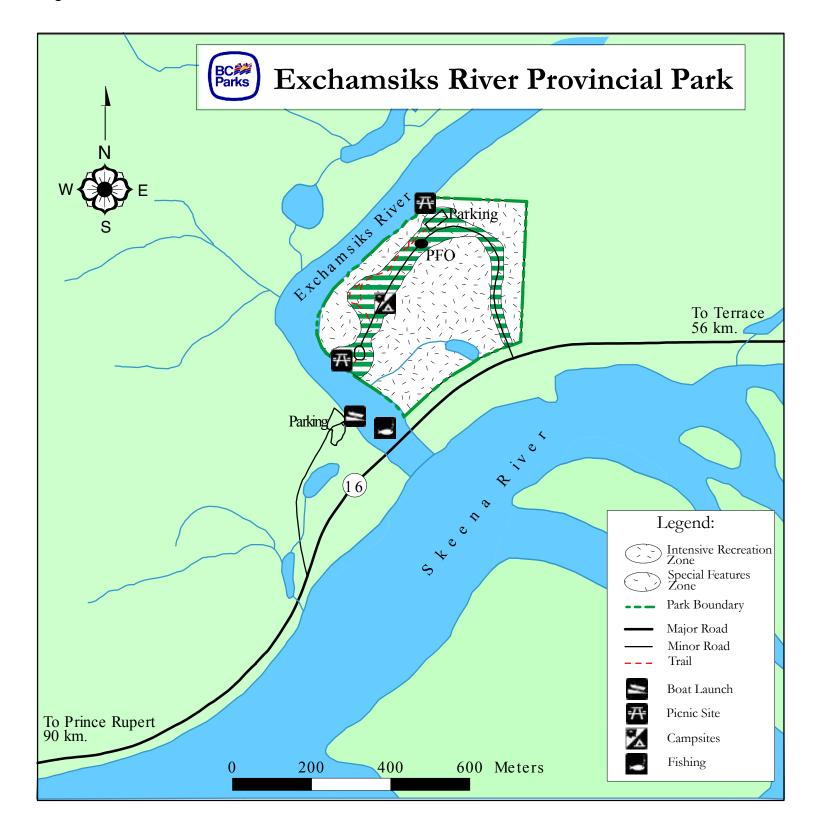
Consultation and Future Planning

BC Parks will undertake consultation with nearby communities, First Nations and those interests in developing the long-term plan noted above and a future revised MDS.

Preliminary Zoning

The campsites and day-use area are zoned Intensive Recreation. The remainder of the park should be designated as Special Feature, in recognition of the ecological values of the old-growth community. Should the campground be closed in the future it is recommended that the campground also be zoned as a Special Feature.

Figure 3



Appendix I Exchamsiks River Park - Table of Acceptable Activities, Uses and Facilities

Activity/Use/Facility	Acceptable Uses
Hunting	N
Fishing	Y
Trapping	N
Grazing (domestic livestock)	N
Recreational gold panning/rock hounding	N
Utility corridors	N
Communication sites	N
Horse use/pack animals	N
Guide outfitting (hunting)	N
Guide outfitting (fishing)	M
Guide outfitting (nature tours)	Y
Guide outfitting (river rafting)	N
Cat-assisted skiing	N
Ski hills	N
Commercial recreation (facility-based)	N
Commercial recreation (non-facility-based)	M
Backcountry huts	N
Water control structures	N
Fish stocking and enhancement	N1
Road access	Y
Off-road access (snowmobiling)	N
Off-road access (motorised)	N
Off-road access (mechanical activities)	N
Motorised water access	Y
Aircraft access	N
Fire management (suppression)	Y
Fire management (prescribed fire management)	N
Fire management (prevention)	Y
Forest insect/disease control	M
Noxious weed control	M
Exotic insect/disease control	M
Scientific research (specimen collection)	M
Scientific research (manipulative activities)	M

Y = allowed subject to conditions identified in the management direction statement or management plan

M = may be permitted if compatible with protected area objectives

N = not allowed

N1 = allowed for expressed management purposes only

N2 = present and allowed to continue, but not normally allowed

Appendix II

Action Plan to Determine Long-term Management of Exchamsiks River Park

Date: July 5, 2000

Prepared by Karen MacDowell, Resource Officer and Peter Levy, Planner

This action plan is an outline of measures proposed for the next 1-2 years to assist in determining the long-term management direction of Exchamsiks River Park. This action plan is divided into two sections. The first section addresses the decision-making process regarding continued operation of the campground in Exchamsiks River Park. The second section outlines the interim measures being undertaken prior to a final decision being made

Decision-making Process

Working Group and Process for Long-term Decision

A technical working group of BC Parks' staff will be established to monitor and implement this action plan and prepare recommendations to PMC for a long-term decision on Exchamsiks River Park. The working group will consist of appropriate District and Headquarters staff and will be responsible for the activities listed below. Some of these activities will be undertaken by district staff and reviewed by the technical working group.

- Refine, monitor and implement the various components of the action plan;
- Liase with staff in BC Parks and other agencies as necessary and prepare periodic updates on progress;
- Conduct a detailed inspection prior to the beginning and at the end of each field season;
- Organize a site tour for the working group in autumn 2000 so all members are familiar with the park
- Assess feasibility of alternate campground locations in autumn 2000.
- Prepare educational information and seek public input regarding alternative uses of the park and alternate locations for camping in the spring and summer of 2001 (see more detailed discussion below).
- Develop long-term conservation, recreation and cultural heritage objectives for the park and in particular whether the campground use should continue or not for PMC consideration in autumn 2001;
- Organize site tour for PMC in autumn 2001;
- Prepare formal recommendations to PMC by December 2001 on the future of the campground and revision of the interim Management Direction Statement.

Representation on the working group needs to be determined by PMC. Suggested representatives include: Skeena District Manager, Area Supervisor, Resource Officer, Planner, and HQ Vegetation Ecologist. Further representation from HQ and another district may be appropriate and should be determined by PMC.

Feasibility of an Alternate Campground Location

In autumn 2000, the alternative camping locations in the vicinity of the park will be determined through discussions with other provincial government agencies and site assessments. One location potential option is situated east of the park entrance in the proposed park expansion area. All potential areas will be assessed to determine if adequate conditions exist for facility development. The various options will be presented to the public, First Nations, local governments, park user groups and park visitors in the spring and summer of 2001.

Public Involvement/Communications

Once alternate locations for a new campground are determined, park user groups (tourism associations, rod and gun club etc.), local governments, First Nations and park visitors will be consulted. Public meetings will also be held in Terrace and Prince Rupert. Consultation would include an information package/newsletter from BC Parks educating people about park values, outlining the issues associated with having camping continue in the red listed plant community, identify options for relocating the campground and identifying options for future use of the present campground. Feedback requested would include public demand for camping in the vicinity, preference for an alternate camping location and input regarding future use of the present campground. Public input would be summarized for consideration by BC Parks staff. Consultation would be undertaken in the spring and summer 2001, and public input would be summarized in the autumn 2001.

Interim Measures

Park Expansion

The Kalum Land and Resource Management Planning committee has recommended expansion of the existing 18 ha park to 1,565 ha (Appendix 1). This expansion would encompass one area of the red listed Sitka spruce–salmonberry plant community in old-growth condition (approximately 20 ha in size) and seral stages of this plant community and other blue listed plant communities (summarized in Appendix 2).

The LRMP has also recommended upgrading the Gitnadoix River Recreation Area, which also contains some representation of CWHvm1/09 to Class A Park status. (See Appendix 2.)

Research and Monitoring

Research regarding the Sitka spruce–salmonberry plant community in the park and proposed park expansion, its' rarity and impacts of the campground on the community have been undertaken. The BC Conservation Data Centre classifies this plant community as S2. This ranking means at a provincial (subnational) level the community is imperiled because of rarity (typically 6-20 occurrences or few remaining individuals) or because of some factors making it vulnerable to extirpation or extinction. Three reports have been prepared:

- Vegetation Management Plan for Exchamsiks River Provincial Park, Applied Ecosystem Management, March 1998.
- 2. <u>Exchamsiks River Park and Recreation Reserve Red and Blue Listed Plant Community Assessment,</u> Sybille Haeussler, Skeena Forestry Consultants, December 1998.
- 3. <u>An Assessment of Campground Impacts on the Old-Growth Sitka Spruce–Salmonberry Plant Community in Exchamsiks River Provincial Park</u>, Phil Burton, Symbios Research and Restoration, Feb 2000.

These reports and other information on file are summarized in Appendix 2. Copies of reports are available from BC Parks' library in Victoria. Incremental impacts of recreational use on the red listed plant community will be monitored.

Remedial Measures

A contract is underway (June-August 2000) to prepare a restoration plan for the old campsites and old access road in the park. This includes physical restoration (site decompaction, planting shrubs, etc.) and redirecting park visitors to avoid trampling vegetation. Actions will be prioritized and undertaken in the autumn 2000 and spring/summer 2001 as budgets permit (RR&E \$20,000 and potentially BC Parks' rare and endangered species funds). The restoration plan will also include recommendations regarding the rehabilitation of the present campground. These recommendations would be implemented if the campground is closed in the future.

Campsite and Visitor Management

To help ensure compliance with park regulations and in order to minimize the damage to the red listed Sitka spruce—salmonberry plant community caused by park visitors, the operations permit was modified in 2000 to include full time presence in the park by the park facility operator (PFO).

Information about the importance of the plant community and about the role of visitors in preventing damage to it is presented to park visitors in a number of ways. Bulletins are posted in pit toilets, the park operators are providing information to park visitors and monitoring their behaviour and a park ranger is developing more interpretive material about the importance and characteristics of the plant community (i.e. age and size of the large trees, importance of intact bark, tree diseases as a natural part of an aging forest, understory vegetation).

Consideration is being given to having the PFO rent awnings to campers at a nominal charge as an alternative to using tarps.

Short-term Hazard Tree Management

A hazard tree assessment was undertaken in the autumn 1999. If the BC Parks Wildlife/Danger Tree Guidelines were used, most campground facilities were considered to be threatened by hazard trees. The hazardous trees were subsequently categorized into higher, medium and lower risks by the park Area Supervisor. Workers Compensation Board (WCB) inspected the site and determined that present hazards to workers could be managed by removal of one very high risk tree and written work procedures around other identified trees.

This information was outlined in a decision issue note to the Park Management Committee (PMC) in February 2000. As approved by PMC on May 2, 2000 a modified hazard tree policy is being implemented.

Work procedures have been developed and are being practiced by the PFO. Two campsites have been closed, as they are potential targets of higher risk trees. One dead high-risk tree of concern to WCB has been felled. Formal tree hazard assessments will continue to be implemented each spring and autumn with informal monitoring on an ongoing basis.

Appendix 1

The larger shaded area is the park expansion recommended by the Kalum LRMP. The existing park boundary is indicated by a dash and dotted line at the mouth of the Exchamsiks River.



Appendix 2

Exchamsiks River Park – Background and summary of research reports on file in Terrace

July 5, 2000

Prepared by Karen MacDowell, Resource Officer

The park is located 56 km west of Terrace 18 ha in size, established in 1956. During the 1970s a small campground was operated close to the river. Ninety-two trees were evaluated in 1979. Fifty trees were rated as hazardous (5 or 6 using our old evaluation system - scale of 1 to 3 for potential to fail + scale of 1 to 3 for consequences of failure). Hazard tree records are on file. Rather than remove the hazard trees, the campground was closed in the early 1980s.

A new 20-site campground was opened (very close to the original campground) in 1988. It is situated along a former highway right-of-way. The r/w had been in place for approx. 30 years. Some gravel from the r/w was used to construct elevated campsite pads as flooding since flooding is an issue in the park. More than 40 trees were removed as a result of campground construction. Five brief reports are on file from ecologists with regard to the potential impacts on the old-growth spruce adjacent to the campsites (due to root burial and compaction). Opinions varied on the potential impacts of the campsite pads and potential impacts of removing the campsite pads. No remedial action was taken.

Information regarding the rarity of this red listed Sitka spruce-salmonberry plant community (CWHvm1/09) is summarized as follows. The BC Conservation Data Centre classifies this plant community as S2. This ranking means at a provincial (subnational) level the community is imperiled because of rarity (typically 6-20 occurrences or few remaining individuals) or because of some factors making it vulnerable to extirpation or extinction. In the Kitimat Ranges Ecosection which extends from Burke Channel in the south to Stewart BC in the north, the submontane very wet maritime coastal western hemlock subzone (CWHvm1) occurs along the BC coast on the western slopes of the Coast Mountains and Kitimat Ranges. The elevation range is from sea level to 500 metres. The floodplain site series (09) borders streams and rivers and are formed from the sediments deposited during flooding events. They are flat benches, still under the influence of periodic flooding. Site series 09 is naturally quite rare because it only occurs on the lower reaches of coastal rivers on higher bench sites which are subjected to regular but not long periods of flooding. Most old-growth occurrences of site series 09 have been logged and have not regenerated to Sitka spruce. At a regional level, outside of the Skeena River watershed, there are some occurrences of CWHvm1/09 in the Khutzeymateen and Kitlope protected areas. Within the Skeena River watershed, there is very little CWHvm1/09. It is known to occur in Exchamsiks River Park, in the proposed park expansion upstream from Exchamsiks River Park and in the Gitnadoix River Recreation Area (Allan Banner, Ministry of Forests, personal communication, 2000).

The forest in the Exchamsiks River park campground is unique since it is the only road accessible old growth of this type along the Skeena River and it contains one of the oldest stands of this type. The larger spruce trees are estimated to be at least 600 years old (Allan Banner, Ministry of Forests, personal communication, 2000). As a result of these characteristics, Exchamsiks River Park offers outstanding interpretive opportunities.

<u>Vegetation Management Plan for Exchamsiks River Provincial Park,</u> Applied Ecosystem Management, March 1998.

<u>Methods</u>: literature review, interviewed local experts, reviewed Conservation Data Centre database, reviewed conservation program policies, pre-typed airphotos, field visits. <u>Findings</u>:

- 1. Small patch of red listed plant community in campground area (approx. 12 ha)
- 2. BC Parks' vegetation management policy (VM3) outlines "Of most importance is that wherever issues of vegetation management arise the principle of long-term protection of the ecosystem prevails". This principle and the management of hazard trees are incompatible goals since, by BC Parks' definitions, the removal of a hazard tree is removal of an old-growth attribute.

3. Connectivity with and protection of, other patches of the red listed community in an old-growth stage is important for the long-term viability of the red listed ecosystem.

Recommendations:

- 1. The campground should be closed by 2003. Day use picnicking and possibly a few trails should be permitted. (1991-95 averages show approximately 86% of all visitors to the park are day users).
- 2. Alternate location for the campground should be identified with a new site open by 2003.
- 3. Removal of the campground from the old growth would facilitate reducing the amount of hazard tree management presently required.
- 4. Trees that fall should be left on site to contribute to coarse woody debris in the forest.
- 5. The recreation reserve should be added to the park through the LRMP
- 6. Vegetation in the park and recreation reserve should be inventoried
- 7. Implement an education program to minimize tree damage caused by campers
- 8. Compile inventory data into a GIS
- 9. Complete rehabilitation of the campsite by 2008.

Exchamsiks River Park and Recreation Reserve Red and Blue Listed Plant Community Assessment, Sybille Haeussler, Skeena Forestry Consultants, December 1998

<u>Methods</u>: literature review, interviewed local experts, pre-typed airphotos, fieldwork to assess soil, vegetation and undertake site assessments in polygons along floodplain completed, field checked midelevations polygons

Findings:

- 1. In the park there is one red listed plant community: Sitka spruce-salmonberry (CWHvm1/09) on mid to high bench floodplains (old-growth condition approx. 12 ha in the campground) and two blue listed plant communities Amabilis fir-Sitka spruce-devil's club (CWHvm1/08) (some in old-growth condition, some with logging) and Cottonwood-red osier dogwood (CWHvm1/10) (in fair condition likely due to changed hydrology from highway construction).
- 2. These plant communities and two other blue listed plant communities (Western hemlock redcedar salal (CWHvm1/03 and CWHvm2/03) were found in the recreation reserve. The Sitka spruce-salmonberry plant community is found in old-growth condition in two locations: the campground and there is an excellent example at Shroud Creek (upstream of the recreation reserve). Other areas (map in report) in the Exchamsiks River floodplain have this community in seral stages.

Recommendations:

- 1. Enlarge the proposed park expansion to include Shroud Creek
- 2. Only low impact developments should occur in this plant community (i.e. non-motorized recreation).
- 3. Three of the blue listed communities have been recommended for de-listing in the lower Skeena Valley, however, the Amabilis fir-Sitka spruce-devil's club community is vulnerable due to logging and should be included in the protected area without further disturbance.
- 4. To prevent further damage to the red listed plant community, consideration should be given to relocating the campground to the second growth forest adjacent to the current access road (logged alder area).
- 5. Expert advice should be sought prior to undertaking any restoration work in the campground.
- 6. Recommendations about locating a potential road access corridor through the recreation reserve are included in the report. This was an interest expressed at the LRMP to access potential minerals and forests in the upper Exchamsiks.

An Assessment of Campground Impacts on the Old-Growth Sitka Spruce—Salmonberry Plant Community in Exchamsiks River Provincial Park, Phil Burton, Symbios Research and Restoration, Feb 2000.

Methods: The goals of the report are to determine whether the campground is having and unacceptable impact on the red listed pant community and to address the degree to which the current Sitka spruce—salmonberry plant community is maintaining itself within the park. Quantitative methods were used to statistically compare relatively disturbed and undisturbed areas of the park in terms of growth rates and vigour of canopy trees, regeneration of Sitka spruce and abundance of associated plant species. Fieldwork included gap surveys, vegetation sampling, tree growth and vigour assessments and tree root sampling. Findings and Recommendations:

- 1. Approximately 13 ha of the park had been a Sitka spruce–salmonberry plant community of which 1.6 ha is covered by roads and campground facilities and 6.5 ha is recovering after some degree of tree removal, leaving only 4.9 ha of undisturbed old-growth.
- 2. Vegetation in both the old and new campgrounds differs in many respects from the undisturbed forest. The density of canopy trees around the new campground is only about one-half that of the undisturbed forest, meaning that any further tree removals would seriously compromise the spot's character and integrity as a forest site. Vegetation in the disturbed portions of the park reflects impacts due to both increased light levels and recurrent tramping by people. With more early successional and exotic species, the vegetation in disturbed areas is not likely to maintain a Sitka spruce—salmonberry plant association without some intervention, such as the restriction of foot traffic and the planting of salmonberry and red osier dogwood shrubs. Even in the absence of human disturbance, however, old-growth Sitka spruce stands are only partially self-maintaining through internal gap dynamics. Their continued presence in the landscape depends more on the exposure of large expanses of new alluvial and colluvial substrates.
- 3. The Sitka spruce trees located in the campground and day use areas are growing well, and show little evidence of compromised annual growth as a result of root burial or stem injuries. In contrast, the trees growing in the undisturbed portion of the stand appear to have experience progressively depressed growth, perhaps because of altered site hydrology, since the old highway (now the campground access road) was constructed in the 1940's. Fine spruce roots were found growing in the campsite pads, though not in the densities found in undisturbed forests. These trees seem to be compensating by growing roots at greater densities on the side of the tree not buried by gravel. Mature trees seem to be growing well in the campground with little sign of declining vigour. Mature trees seem to be responding positive to high light levels or perhaps to the opportunity for rooting in elevated sites. While measurements of tree growth did not include a comparison of the rate of radial increment with the rate of fungal decay spreading in tree trunks nor the effects of decay on mechanical strength, observed trends in radial growth suggest that the assessment criteria used for hazard tree identification may be unnecessarily conservative and should be reviewed.
- 4. This small stand of old-growth Sitka spruce—salmonberry is the only one in northern BC accessible by road making it important for interpretation and public education. Whether the campground is closed or not, trampling should be limited and foot traffic directed away from over-used areas. Self-guiding trails should be developed which explain ecology, impact of human activities and any restoration efforts undertaken.
- 5. If Exchamsiks Park is expanded to include additional Sitka spruce—salmonberry upstream, then conservation efforts can be met more successfully there.
- 6. Park expansion may also provide the opportunity to relocate the campground to the second-growth alder forest east of the current park boundary, which has old logging trails and a gently hillside that may provide campsites superior to the current ones.
- 7. These results suggest that closing and relocating the campground should be undertaken as soon as possible, with damage to the remaining tress and vegetation minimized in the meanwhile. It could be argued that campground closure is not imperative solely for purpose of ecosystem protection if no more trees are removed, if human activities are limited to the current zone of impact, if trampled areas are restored, if natural flooding regimes are re-established and if permanent displacement of 16% of the old-growth Sitka spruce-salmonberry association is considered acceptable. (Symbios estimated that 10.25% of the park, including 15.6% of the old-growth Sitka spruce-salmonberry community currently has no natural vegetation because of access structures and recreation features.) If authorities insist that any more trees be removed because of the potential hazard they present to campers, however, or if any of the other conditions cited above cannot be achieved, then it is clear that the interpretive and conservation values of the park will be further compromised. Further tree removals must be avoided at all costs.
- 8. If the campground is to be closed or relocated elsewhere, then active restoration should be undertaken to accelerate community recovery. Restoration of this forested ecosystem could be accomplished by breaching the old highway and campsite access lanes to allow natural flooding and drainage patterns, and by ripping the decommissioned road surface (though not the gravel campsites themselves as many now have tree roots in them) to facilitate plant community regeneration. Ecosystem recovery could be accelerated by spreading silt and sand in patches, and with careful planting of native plant materials, but invasion by exotic plants may be a concern. Control of trampling through the construction of

clearly marked trails and the strategic placement of obstacles will also be required for plant community recovery in both the old and new campground areas. Restoration is a long process, however, especially when targeting an old-growth condition. More important and more effective for the maintenance of old-growth Sitka Spruce-salmon berry communities in the Exchamsiks River valley in the long run, is to guarantee protection of natural processes across a mosaic of similar sites in different stages of successional development through the Exchamsiks floodplain landscape.

A Hazard Tree assessment report (August 1999) is on file. The assessment was undertaken by the Area Supervisor, Resource Officer and a contractor (involved in the development of BC Parks Hazard Tree Assessment Guidelines). Twenty hazardous trees and two trees with hazardous limbs were identified.

<u>Exchamsiks River Park Hazard Tree Risk Assessment</u>, John Trewhitt, March 2000. This report categorized the hazardous trees in to high, medium and lower risk categories.

Further hazard tree assessment spring 2000 was undertaken by WCB and the Area Supervisor to obtain recommendations from WCB locally.