# MANAGEMENT PLAN February 2003



for Seven Sisters Park and Protected Area



Ministry of Water, Land and Air Protection Environmental Stewardship Division

# Seven Sisters Park and Protected Area

# MANAGEMENT PLAN

Prepared by
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Approved by:

Assistant Deputy Minister

Date: March 25/03

Date: April 4/03

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# Acknowledgements

The Environmental Stewardship Division would like to acknowledge the time and effort of the Seven Sisters Planning Group who were responsible for recommending designation of the park and protected area and provided initial management direction. The Seven Sisters Planning Group's recommendations formed the background document for the preparation of this management plan.

As part of the management plan process, many people participated in meetings in Hazelton, Gitwangak, Kitwanga and Terrace. We recognise that people donated their personal time in order to help us develop the plan, and that sacrifice is acknowledged and greatly appreciated. Special thanks are owed to First Nations and house chiefs that attended meetings and shared information and advice.

The Environmental Stewardship Division would also like to acknowledge consultants Karen Price, her husband Dave Daust, and associates on the project, Anne Docherty and Doug Donaldson. The effort put in by the consultants to prepare a plan with as much local and First Nations input as possible is appreciated and is well reflected in the plan. A special thanks is due Roger Norrish from Headquarters, and to the rest of the Victoria Parks and Protected Areas Branch review team.

# **Plan Highlights**

- In response to strong public support for a remote backcountry experience for the Seven Sisters Provincial Park and Protected Area, 94% or 36,800 hectares has been zoned for preservation as wilderness recreation, which controls mechanised access and facility development. Within this zone an opportunity is provided to develop limited infrastructure to meet recreational needs.
- Sensitive wet meadows near Oliver Creek will be protected and allowed to rehabilitate. Steps will be taken to eliminate unauthorised ATV and motorised use within the fragile meadow ecosystem.
- Snowmobile use in a bowl identified by local snowmobile users and by the Skeena
  Valley Snowmobile Club has been identified and zoned to allow for snowmobile use
  to continue. Outside of the snowmobile bowl the majority of the park is managed to
  ensure undisturbed mountain goat habitat while allowing low impact skiing and other
  recreational pursuits.
- A cultural study and the inventory and protection of cultural sites are a recommended action to be pursued in conjunction with the Gitxsan and Tsimshian First Nations.
- To allow local communities to benefit from increased tourism and to ensure day use
  opportunities are offered, a multi-purpose trail and opportunities for low impact
  camping are recommended actions for the Meanskinisht Road and Watson Lake areas
  respectively. Additionally, appropriate signage for the park entrance and park
  trailheads will be developed.
- In response to a potential increase in campground demand two sites have been identified and zoned to allow for a potential front country campground in the future.
- The help of local organisations and groups will be used to ensure an appropriate liaison between the Environmental Stewardship Division of the Ministry of Water, Land and Air Protection and the local communities.
- Measures are recommended to protect important areas for mountain goat use and key mountain goat habitat from recreational activities.

### Introduction

#### **Foreword**

The Environmental Stewardship Division's mission is to develop, promote and measure achievement of provincial goals for the conservation of living resources (i.e. biodiversity and ecosystem protection); and, to manage protected areas and use of the province's fish and wildlife populations to achieve those goals. Protected area management plans provide guidance to the Environmental Stewardship Division and also to First Nations, local governments, the public and commercial interests on a protected area's special values, issues, strategies and opportunities.

Implementation of the management plan is a responsibility of various sections within the Ministry of Water, Land and Air Protection in conjunction with other interested parties and agencies. Many strategies contemplated within the management plan have funding and resource requirements. At the same time, the Ministry of Water, Land and Air Protection is working within tight budgetary constraints and has many competing projects requiring funding. Consequently, implementation of strategies identified in the management plan will be dependent on available funding, agency priorities and on partnerships developed.

Interested parties are encouraged to work with Regional Operations, Environmental Stewardship Division, to help ensure proper stewardship of Seven Sisters Park and Protected Area. The development and maintenance of partnerships provides an opportunity to supply benefits to the park and interested parties. Partnerships may offer funding, resources, expertise or other values to the park. Opportunities exist in helping conserve the park and protected area's natural and cultural values and in developing and protecting the park and protected area's recreational and commercial opportunities. It is hoped that a variety of successful partnerships will be developed to implement this management plan and in doing so, help provide relevance and a sense of stewardship to all involved. The relevancy to and involvement of the public will ensure that the protected areas system continues to be a jewel of the citizens of British Columbia and continues to provide local, provincial and global benefits.

In this plan both the "Seven Sisters Provincial Protected Area" and "Seven Sisters Provincial Park" are referred to as the "park" except where clarification is required.

## **The Management Planning Process**

Management plans guide the management of a park for a minimum of 10 years. They provide a long-term vision, describe park values, outline the area's role within the British Columbia protected area's system, identify management issues, list management objectives and strategies that address the issues, and define zones describing appropriate use, development and management of different areas within the park. Management plans rely on current information relating to natural resources, cultural activities, recreation uses and activities occurring on surrounding lands. This information is available from park managers, other governmental agencies, prepared reports, local experts, interest

groups and the general public.

Management plans guide protection of ecological integrity, protection of cultural values and provision of appropriate recreational opportunities. A high degree of public involvement is required to define important values. The general public and public interest groups have opportunities to provide comments to the Environmental Stewardship Division through a variety of means including public meetings and questionnaires. The Seven Sisters Park and Protected Area management planning process included newsletters, questionnaires, open houses and workshops.

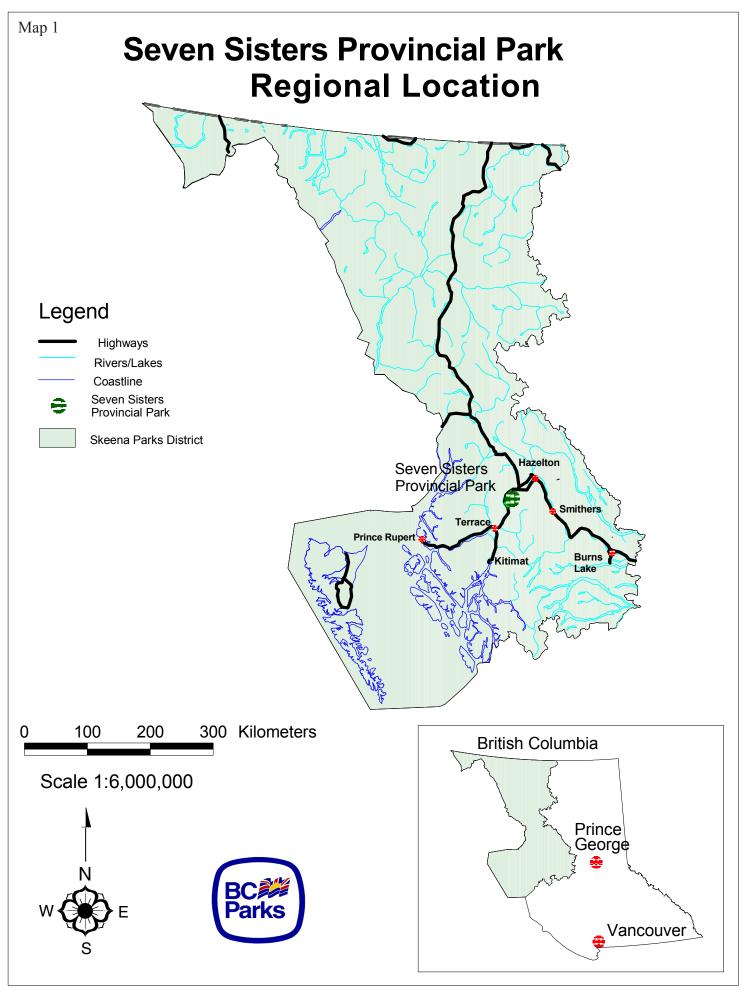
Ongoing consultation between the Environmental Stewardship Division and First Nations may result in future revisions to this plan.

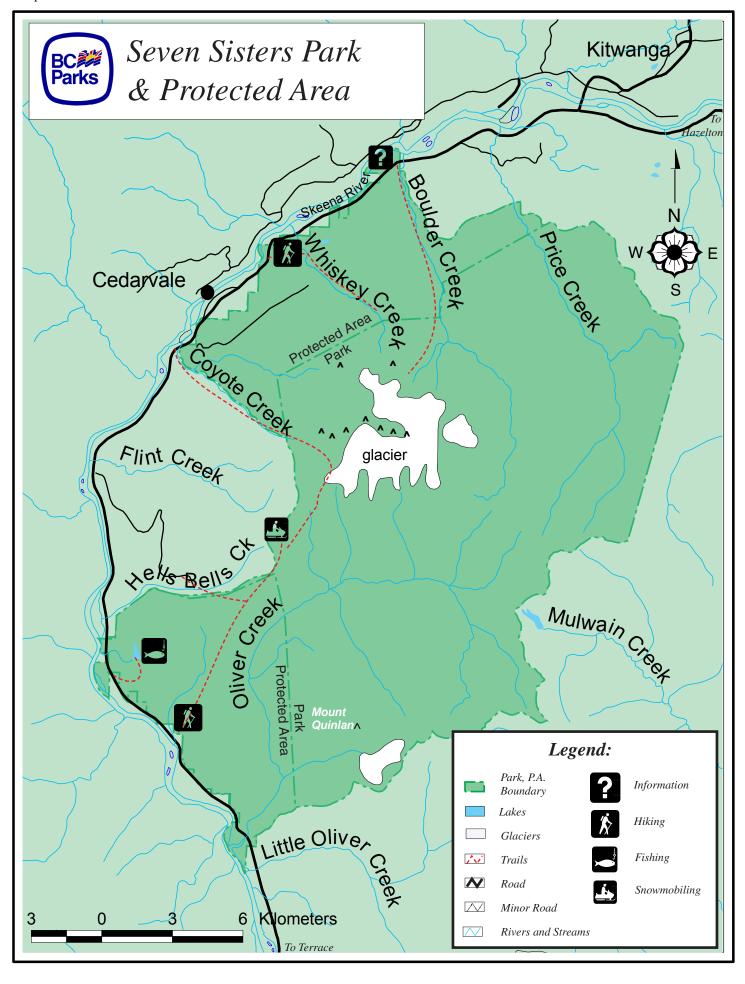
#### **Background Summary**

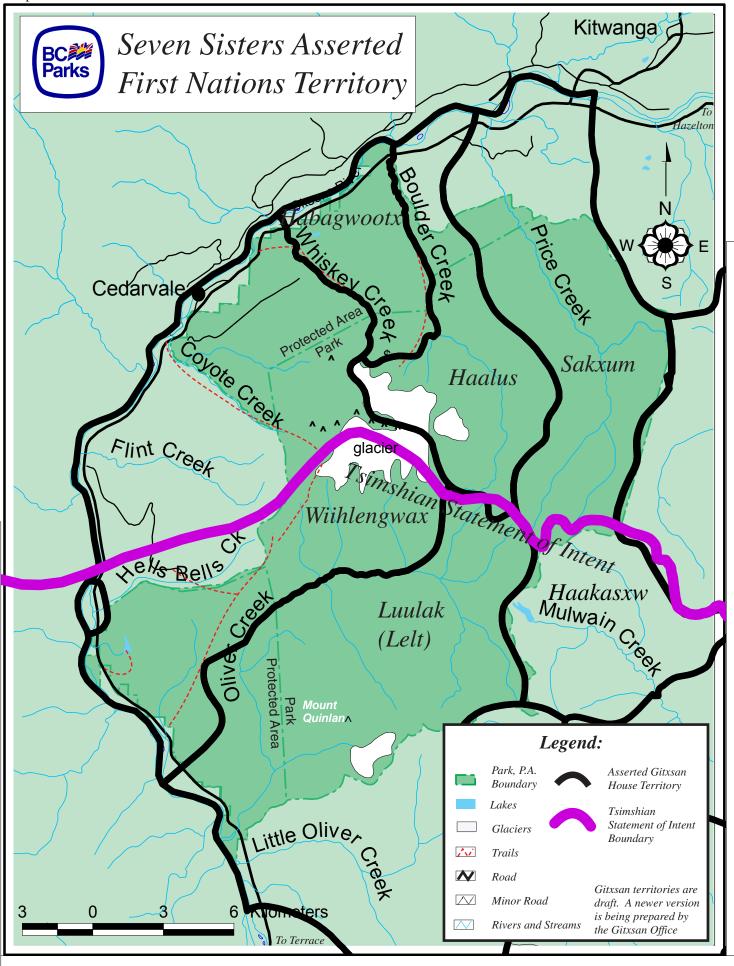
Seven Sisters Provincial Park and Protected Area are named for the spectacular set of peaks visible from Highway 16 between Hazelton and Terrace. The park and protected area encompass approximately 39,200 hectares, ranging in elevation from 150 metres in the Skeena River valley to 2,750 metres on Weeskinisht Peak. With gained elevation, ecosystems change from lush, coastal valley forest to treeless alpine meadows and glaciers. The streams and associated riparian systems carry water down from mountain glaciers through Price Creek, Boulder Creek, Whiskey Creek, Coyote Creek, and Oliver Creek watersheds directly to the Skeena River. The diverse ecosystems provide habitat for a variety of wildlife and offer a wide range of outdoor recreation opportunities for people.

The Seven Sisters area has been traditionally important to local residents. The park is a close neighbour to several communities: Kitwanga, Gitwangak and Kitsegukla (total population ~ 1,500) lie just north of the park on Highway 37 and Highway 16, while Cedarvale/Meanskinisht (population 100) directly borders the park between Whiskey and Coyote Creek watersheds. People from these communities have used, and continue to use, the Seven Sisters area for hunting, gathering, pine mushroom picking and outdoor recreation activities. Many people from the Hazelton communities (Hazelton, New Hazelton, South Hazelton; area population7,000), 50 kilometres northeast of the park, and Terrace – Kitimat (area population32,000), 50 kilometres south of the protected area, also visit the Seven Sisters area to gather or pick mushrooms, hunt and pursue outdoor recreation activities. Exceptional recreational opportunities attract regular visitors from Prince Rupert to the west and Smithers to the east (area populations 19,000 and 12,000 respectively). Map 1 shows the Seven Sisters Provincial Park and Protected Area in relationship to regional communities. Map 2 shows the park in greater detail.

Seven Sisters Provincial Park and Protected Area lie within the traditional territory claims of the Gitxsan and Tsimshian First Nations. Several Gitxsan Wilps, or House groups, claim traditional territory within the park boundary: Sakxum Higookw (Lax'skiik/Eagle Clan), Haalus (Ganeda/Frog Clan), Haxbagwootxw (Gisgaast/Fireweed Clan), Wii Hlengwax (Ganeda), Luulak (Ganeda), and Haakasxw (Ganeda). The Seven







Sisters area was, and is, important to First Nations as a source of meat, fur, berries and other plants. The Kitselas Band of the Tsimshian First Nation claim traditional territory in the southern portion of the park including the Oliver Creek watershed. Map 3 shows Gitxsan and Tsimshian claimed territory within Seven Sisters Provincial Park and Protected Area.

The forests around the park and protected area are subject to timber harvesting. Forestry has been the largest employer in the region. Regional tourism, however, is expanding due to the increased desire for the wilderness experience found in northern British Columbia, and residents of the Upper Skeena have identified tourism as a sector of the economy that they wish to see developed. Many initiatives have taken place in the Upper Skeena during the past five years in the areas of tourism training, planning and business development. A small, but growing, cultural ecotourism sector is established. Visitor use in the Seven Sisters area will be affected by the activities of these local businesses.

Most people go into the Seven Sisters along a series of trails originating at Highway 16. Some trails are old mining roads, logging roads or trapping trails. Few facilities exist beyond trails. Picnic tables and fire rings remain from a past BC Forest Service recreation site at Watson Lake. Several private cabins, some registered and still used by trappers. others deteriorating, are located throughout the southern section of the park.

#### **Natural Features and Values**

Seven Sisters Provincial Park and Protected Area are aptly named after the spectacular row of rugged peaks (Tlooki, Weeskinisht, Tagai, Tingi, Kitshin, Kletoosho and Tutoosho) that are its most impressive geological feature. Four peaks reach above 2,500 metres; 2,750-metre-high Weeskinisht is one of the three tallest peaks in the region, and the only one easily visible from a major highway. Orion Peak, just to the north of the row of sisters and Mount Quinlan, in the south of the park, are also above 2,000 metres. The Seven Sisters are the highest peaks along the Yellowhead Route between Mount Robson and the Pacific Ocean.

The park contains a complete elevation sequence of forested ecosystems from valley bottom to alpine, including Interior Cedar Hemlock, Coastal Western Hemlock, Mountain Hemlock and Alpine Tundra Biogeoclimatic Zones. Because the climate is transitional between coastal and interior regimes, the forest ecosystems possess a unique blend of coastal, interior and northern features. The diversity of tree species and variety of ecosystems along the elevation transect is unequalled in northern British Columbia<sup>2</sup>. In transitional ecosystems, many species exist near the limits of their range and may be genetically distinct, specially adapted to harsh conditions.

Old-growth mountain hemlock, amabilis fir and western red-cedar forests exist in the Oliver Creek watershed. Some of these old-growth forests may be "antique forests" (i.e. due to a long period since the last stand-level disturbance, the stand is older than the oldest tree), home to unique communities of epiphytic lichens and likely important

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<sup>&</sup>lt;sup>1</sup> Beyond 2000, Creating Our Future, Setting Socioeconomic Priorities in Our Communities. Oldtown Adventures (A-D Communications), March, 1999. <sup>2</sup> Sybille Haeussler, ecologist, statement on file with BC Parks.

habitat to a range of other organisms<sup>3</sup>.

Resident mountain goat herds live within the park. They use the Seven Sisters peaks and ridges during the summer and winter in the forests near Oliver Creek and Hells Bells Creek. The mountain goat population is not currently threatened. Mountain goats, however, are sensitive to changes in hunting pressure, habitat and noise levels.

Grizzly (blue-listed) and black bears, raptors and other birds use the entire park and protected area. In the low elevation forested area, marten and fisher (blue-listed) use the older forests, while moose, mule deer, coyotes and wolves tend to use the area around natural openings, burned areas and old cutblocks. The low elevation forest between Hells Bells Creek and Oliver Creek provides mule deer winter range. High elevation wetlands in the Upper Price Creek drainage are likely important for migratory waterfowl in spring and fall. Although not currently suitable due to young forest age, habitat capability for northern goshawks (yellow-listed) is high in the Interior Cedar Hemlock zone.

Tailed frogs (blue-listed) have been found across the Skeena from Oliver Creek, and may live in small tributaries within the park. Large breeding populations of rough-skinned newts at the northern extent of their range live in small ponds near Coyote Creek. Salmon pass through the lower reaches of all creeks; trout are found within some lakes and creeks.

The low elevation forest provides habitat for pine mushrooms (see Cultural Values, below).

#### **Cultural Values**

The Gitxsan people settled the Skeena River Valley some time between 12,000 and 9,000 BP as recorded by their *adaawk*, oral histories passed through the ages by succeeding chiefs and witnessed at feasts. The Gitxsan assert that House chiefs have always managed all aspects of their territories, and have been responsible for ensuring the health of the land as well as house members.

According to the Gitxsan, they used the park for sustenance, spiritual and cultural purposes. Traditional activities noted by the Gitxsan include goat hunting (for meat and fur), trapping, cedar bark stripping, berry picking (*Vaccinium membranaceum*, *V. ovalifolium* and *Sheperdia canadensis*) and harvesting of a variety of plants for medicinal and cultural purposes. In the region, the Gitxsan traditionally used fire to improve berry patch production. The Skeena River has been crucial to Gitxsan people – traditional fishing holes continue to play an extremely important cultural role.

The Tsimshian people use the southern portion of the park.

The area around the Seven Sisters Mountains has stimulated interest in mineral exploration since the late 1920s. Discoveries included veins with gold, silver, lead and zinc, all in the headwaters of Oliver Creek. Several log cabins were built to facilitate

<sup>&</sup>lt;sup>3</sup> Goward T, Pojar J. (1998) Antique forests and epiphytic macrolichens in the Kispiox Valley. Extension Note 33. Forest Sciences, BC. Ministry of Forests, Smithers.

exploration at the time. After a hiatus, exploration continued between 1968 and 1983, including aeromagnetic, gravity, magnetic and geochemical surveys and trenching to expose bedrock in areas of interest. No mineral occurrences were considered economically viable for mining. The only remnants of the area's mining exploration history are the roads (Oliver Creek Trail and Coyote Creek Trail) and a few dilapidated buildings outside the park at the abandoned Magnatron Site on the Coyote Creek Trail.

The tracts of wilderness within the park offer cultural values of solitude and communion with nature, important to both local residents and visitors.

Mushroom harvesting in the front country of Seven Sisters Protected Area is a recreational and commercial activity for many local residents (First Nations and non-aboriginal). Pine mushrooms (*Tricholoma magnivelare*) appear to form mycorrhizal associations with tree roots, fruiting in the same locations year after year.

#### **Recreation in the Seven Sisters**

Seven Sisters Provincial Park and Protected Area offer an exceptional natural setting for a wide variety of existing and potential recreational activities. Several trails beginning at Highway 16 provide relatively easy non-motorised access to forested mountain slopes, and to subalpine and alpine areas. Snowmobile users travel up a forest service road adjacent to the park and link with the Oliver Creek Trail (an old mining road) to reach an alpine bowl at the headwaters of Oliver Creek. A short hiking trail leads to a well-used picnic, camping and fishing site at Watson Lake. In the backcountry, the headwaters of Price and Oliver creeks offer exceptional backcountry recreational values, including no ground motorised access, rolling alpine meadows, alpine lakes, mountain goats, and scenic views. The peaks and glaciers offer challenging climbing opportunities. The outstanding scenery and unmodified wilderness offer opportunities for learning, research and nature appreciation experiences.

#### **Seven Sisters Planning Processes**

The fate of the Seven Sisters area has been discussed in various forums for more than two decades. Formal land use planning began in 1989. In 1991, the Kispiox Resource Management Plan, with input from more than 40 groups, recommended that the Seven Sisters be studied under the Parks and Wilderness for the 90s initiative. As a study area under Parks and Wilderness for the 90s (later the Protected Areas Strategy) resource development was deferred. Resulting information was presented to a smaller Kispiox planning group, convened to update the Kispiox Land and Resource Management Plan. In 1994, the Kispiox planning group recommended that a separate local planning process consider land uses in the Seven Sisters. The Prince Rupert Inter-Agency Management Committee initiated this local planning process in 1995. The Seven Sisters Planning Group presented their recommendations in April 1997, suggesting that the study area include a Protected Area zone and a General Resource Development zone within the Kispiox Forest District, and recommending adjacent management emphasis for consideration by the ongoing Bulkley and Kalum Land and Resource Management Plan processes.

The Seven Sisters Planning Group recommended development of a management plan for

the proposed protected area. BC Parks initiated this planning process in 1999, discussing opportunities for involvement with the Gitxsan First Nation. Public involvement began in February 2000.

The Seven Sisters Park and Protected Area were announced by the Provincial Government in 1999. The Class A park (27,200 hectares) was established in 1999. Seven Sisters Provincial Park is presently named and described in Schedule C of the *Protected Areas of BC Act*. The lower slopes were established as Seven Sisters Protected Area (12,006 hectares) by Order In Council under the *Environment and Land Use Act* in January 2001 (Appendix I).

#### Relationship with other Land Use Planning

This park management plan does not exist in isolation, but is linked and has incorporated direction from other lard use planning processes. First and foremost, it follows from the recommendations of the Seven Sisters Planning Group (SSPG), the culmination of years of discussion over the Seven Sisters area, and forming part of the Kispiox Land and Resource Management Plan. Of particular interest was the SSPG recommendation that commercial pine mushroom harvesting be allowed within the proposed protected area – an activity prohibited in a Class A park by the *Park Act*. Because of this recommendation, the area has been designated partially as a Class A park, under the *Protected Areas of British Columbia Act* and partially as a protected area designated by Order In Council under the *Environment and Land Use Act* (Appendix I). The portion designated as a protected area is manaæd as a Class A park with the exception being that pine mushroom harvesting is allowed subject to conservation and safety concerns. This plan considers both areas together for consistency and management of issues other than mushroom harvesting.

The SSPG recommendations list objectives for the protected area:

- Protect a representative example of the Nass Mountains Ecosection as an ecological benchmark for the future;
- Maintain backcountry recreation opportunities, including the scenic values on which these opportunities rely;
- Promote a range of recreational uses for easy access day use to more difficult day use to backcountry use;
- Protect critical mountain goat habitat;
- *Manage recreational access and uses to meet conservation objectives;*
- Identify the role of fire in ecosystem maintenance and protect important values and resources from loss to wildfire;
- Respect aboriginal rights and interests;
- *Maintain water quality for domestic use;*
- Maintain access to traditional use, including recreation day use, trapping, hunting, fishing and camping.

The SSPG recommendations also list specific strategies for meeting some objectives, including, in part, the following:

• Develop a management plan that includes an access management component, a recreation management component, a wildlife management strategy and public

participation;

- Restrict winter motorised access to designated trails and areas. Restrict summer motorised access to surfaced roads. Address motorised and non-motorised access and use issues, including deactivation and rehabilitation needs, in the management plan for the zone;
- *Undertake watershed restoration efforts in the vicinity of Cedarvale.*

Secondly, the Seven Sisters Park and Protected Area Management Plan co-ordinates with adjacent resource management plans. The SSPG considered an area within the Kispiox, Bulkley and Kalum forest districts. Each of these forest districts is the focus of a different LRMP process – at different stages of completion. The Kispiox LRMP was completed in 1996. The SSPG Recommendations Report for the Kispiox Forest District forms part of that LRMP. The Bulkley LRMP was published in 1998. Although the SSPG published their recommendations in 1997, the Bulkley LRMP had already achieved consensus, and was unable to incorporate any changes. In April 2001 government accepted the Kalum LRMP and SSPG recommendations formed part of the Kalum planning group's deliberations.

#### **Preparing the Plan**

Preparation of the Seven Sisters Park and Protected Area Management Plan took place from October 1999 to July 2002 with the following stages:

- 1. A consulting team was selected to prepare the plan following meetings (including management planning workshop) between the Environmental Stewardship Division and Gitxsan representatives.
- 2. A letter of introduction was sent to Gitxsan House chiefs; followed by individual phone calls and meetings to determine their wishes to be involved.
- 3. A first newsletter and questionnaire was distributed (directly mailed to Cedarvale/Meanskinisht, Kitwanga, Kitsegukla, Kispiox, Hazeltons; posted on notice boards in communities from Kitimat to Smithers; advertised in local newspapers; February 2000) to introduce the park and the management planning process (> 50 questionnaires returned).
- 4. A total of seven open houses were held in Terrace, Kitwanga Valley, Gitwangak, Hazelton, and New Hazelton to collect visions, values and issues and to advertise the management planning process (> 120 people attended; 75% participated actively; March 2000).
- 5. The results from questionnaires and open house exercises were analysed.
- 6. Interviews were held with a variety of knowledgeable people (local residents, government agencies, stakeholders, and community organisations).
- 7. A workshop on recreation and access management was held (May 2000).
- 8. Informed of overlapping boundaries between the Gitxsan and Tsimshian in the Oliver Creek drainage; held initial meetings to determine the level of involvement and interests of the Kitselas Band of the Tsimshian First Nation (May 2000).
- 9. A first draft of the management plan was made available for public review (November 2000).
- 10. Options for a more detailed Tsimshian review were investigated. Funding to enable the Kitselas Band to undertake a detailed review of the plan was not available from a mutually agreeable funding source.
- 11. The Gitxsan interest in the planning process was enhanced and a desire for the

- Git  $\underline{x}$ san to be included in a variety of activities including on the ground activities and in cultural studies was indicated.
- 12. A second newsletter and questionnaire were distributed (directly mailed to Cedarvale/Meanskinisht, Kitwanga, Kitsegukla, Kispiox, Hazeltons; mailed to mailing list; posted on notice boards in communities from Kitimat to Smithers; advertised in local newspapers; November 2000) to present highlights of draft plan.
- 13. Four open houses were held in Hazelton, Gitwangak, Kitwanga Valley and Terrace to present the draft plan (December 2000). A Gitxsan representative was present at each of these open houses.
- 14. Received questionnaire input and written submissions
- 15. Analysed results of second questionnaire, written submissions and open houses and revised plan.
- 16. Met with interested stakeholders to clarify issues, objectives and strategies.

# Role of Seven Sisters Park and Protected Area

### **Provincial and Regional Context**

Seven Sisters Park is located along Highway 16 and the Skeena River within the Skeena Environmental Stewardship Region in northwest British Columbia. Other large parks nearby include Nisga'a Memorial Lava Bed Park to the northwest, Swan Lake Kispiox River Park to the north and Babine Mountains and Babine River parks to the northeast – all reached by gravel roads. Small, principally recreation focussed, parks nearby include Kitwanga Mountain, across the Skeena River from the Seven Sisters, and Bulkley Junction and Ross Lake near Hazelton. A series of small parks in both directions along Highway 16 offer recreational and camping opportunities. The nearest in direction, Kleanza Creek Provincial Park and Seeley Lake Provincial Park (30 kilometres to the south, 40 kilometres to the northeast, respectively), provide developed camping facilities and may be used as a base from which to explore the Seven Sisters.

The Nass Mountains Ecosection is poorly represented (4.57%) in the provincial protected areas system. Seven Sisters Park and Protected Area provide the best representation of the ecosection contributing 68% of the overall provincial protected area representation of this ecosection. Nisga'a Memorial Lava Bed Park provides the second most representation at 24% of the protection for this ecosection Seven Sisters park also contributes minimal representation (~300 hectares of 23.9% of the provincial representation) to the very poorly represented Cranberry Upland Ecosection.

Seven Sisters Provincial Park and Protected Area provide the second greatest extent of representation of both the ICHmc2 and CWHws2 ecosystems (39.9% and 14.2% respectively) in the provincial protected areas system. Within the Nass Mountains Ecosection, the Seven Sisters is the primary area protecting Interior Cedar Hemlock (ICHmc2), Coastal Western Hemlock (CWHws2), Mountain Hemlock (MHmm2) and Alpine Tundra biogeoclimatic subzones and variants<sup>4</sup>., Swan Lake Kispiox River Park in the adjacent Nass Basin Ecoregion, also protects representative ICHmc2 forest. The significance of Seven Sisters park will increase as the forest within the park ages and as forest in the surrounding landscape is managed, The Seven Sisters, linked to the Zymoetz River watershed via Mulwain Creek, also protects an important movement corridor for wildlife.

The Seven Sisters park is valued differently by different people. These differing perspectives form important contexts for management. For local communities, the Seven

the Seven Sisters Protected Area, the Interior Cedar Hemlock biogeoclimatic zone (ICH) is entirely of the moist cold subzone (mc) and Hazelton variant (2); hence ICHmc2.

<sup>&</sup>lt;sup>4</sup> The Biogeoclimatic Ecosystem Classification system is a tool used to classify and describe ecosystems in British Columbia. There are 14 biogeoclimatic zones in the province, representing areas having similar patterns of energy flow, vegetation, soils and macro-climate. Biogeoclimatic subzones have a more uniform climate and unique plant communities. Variants describe small variations in climate and vegetation within a subzone. There are 168 units (including subzones and variants) across British Columbia. For example, in

Sisters contribute to people's lives and is an important economic, inspirational, and personal area. Most residents want to continue to use the area as they have previously, without significant changes to its natural character. Many long-time local residents have used and still use the area for subsistence. In particular, people living in Gitwangak depend on Seven Sisters mountain goat meat and Skeena River salmon for food. Even today, many local residents, First Nations and non-aboriginal, live mostly outside a cash economy.

Many recent settlers were drawn to the area specifically by the Seven Sisters peaks. These people value the backcountry recreation and wilderness values of the area highly. For people from further afield, the Seven Sisters provides outstanding natural scenery and opportunities for a variety of stimulating and challenging outdoor activities. The area provides a special destination for recreating and for experiencing unchanged wilderness.

#### Significance in the Protected Areas System

The 39,206 hectare Seven Sisters park contains conservation, recreation and cultural heritage values of provincial, and in some cases, national significance. The mountains that give the park its name are exceptionally rugged and glaciated for the region, and have been compared favourably with the Canadian Rocky Mountains by backcountry recreationists and mountaineers. Seven Sisters is among the outstanding scenic landscapes in the British Columbia protected areas system. From the peaks down to the Skeena River Valley, the Seven Sisters park protects 3.1% of the Nass Mountains Ecosection, including the only complete elevation sequence of representative ecosystems within the ecosection.

The craggy mountains are home to a provincially significant, resident population of over 250 mountain goats as well as to other large ungulates and predators. Although the park is not large enough to maintain an intact predator-prey system, it does include important ungulate winter habitat within its series of watersheds. Adjacent special management zones in the Mulwain, Red Canyon and Little Oliver watersheds increase the significance of the park to large mammals. In particular, the gentle topography between Mulwain and Oliver watersheds allows movement and dispersal between two large river systems. Incomplete inventory means that the status of most vertebrates, as well as invertebrates, fungi and plants is currently unknown.

The vast change in elevation and variety of ecosystems provide a full array of recreational opportunities. The proximity to a major travel route attracts high use of the easily reached frontcountry, while the unroaded backcountry attracts people seeking the challenge and rewards of unaided wilderness travel. The Seven Sisters park meets all four of the Environmental Stewardship Division's recreation goals: enhancing tourism travel routes, providing holiday destinations, providing outstanding backcountry opportunities and ensuring access to local outdoor opportunities.

First Nations people travel through the park for sustenance, educational and spiritual purposes, often using the same cultural infrastructure and sites used by their ancestors. Non-aboriginal residents also find spiritual solace and bodily sustenance in the Seven Sisters. Recently, pine mushrooms have provided a much needed source of local revenue for area residents.

Because of its location on the major northern highway, the Seven Sisters park has high potential to play an educational role. Travellers stopping to admire the scenic mountains can learn about British Columbia's protected areas system. The large general resource development zone nestled within the park also provides an opportunity for learning about land use planning compromises.

#### **Protected Area Roles**

#### **Conservation Role**

The Seven Sisters Park and Protected Area:

- Conserves representational ecosystems within the Nass Mountains Ecosection. A complete elevation sequence of coast/interior transitional forest types from the Skeena valley bottom to the alpine is represented: moist cold Interior Cedar Hemlock subzone, Hazelton variant (ICHmc2), wet submaritime Coastal Western Hemlock subzone, montane variant (CWHws2), moist maritime Mountain Hemlock subzone, leeward variant (MHmm2), and Alpine Tundra biogeoclimatic zone (AT). The area, rated a high priority ecosystem for representation by the Regional Protected Areas Team, contributes 68% of the protection of the poorly represented Nass Mountains Ecosection (4.6%).
- Protects important old-growth mountain hemlock, amabilis fir and western red-cedar forests in the Oliver Creek watershed. Some of these old-growth forests may be "antique forests" (i.e. older than the oldest tree), home to unique communities of epiphytic lichens<sup>5</sup> and likely important habitat to a range of other organisms.
- Conserves important wildlife<sup>6</sup> and habitat including:
  - ➤ Several rare plant associations (nearly 1,000 hectares each of CWHws2/02 and ICHmc2/02; less than 100 hectares each of CWHws2/06,07,08,10 and ICHmc2/07; currently very little in old forest stage<sup>7</sup>);
  - Resident population of at least 250 mountain goats;
  - > Grizzly (blue-listed) and black bears, marten and fisher (blue-listed), moose and mule deer, coyotes and wolves, wolverines (blue-listed);
  - ➤ Mule deer winter range;

➤ Potential habitat for northern goshawk (yellow-listed);

- ➤ Possible occurrence of tailed frogs (blue-listed) at the eastern extent of their range;
- ➤ Large breeding populations of rough-skinned newts at the northern extent of their range.

<sup>&</sup>lt;sup>5</sup> i.e. lichens growing on trees. Goward T, Pojar J (1998) Antique forests and epiphytic macrolichens in the Kispiox Valley. Extension note 33. Forest Sciences, BC. Ministry of Forests, Smithers.

<sup>&</sup>lt;sup>6</sup> No information available on invertebrates, most birds, bats or other small mammals.

<sup>&</sup>lt;sup>7</sup> McLennan D, Veenstra V (2000) Ecosystem mapping of Seven Sisters Provincial Park. Report to BC Parks, Skeena District

#### **Tourism and Outdoor Recreation Role**

- The Regional Protected Areas Team (1994) ranked the Seven Sisters area as having high recreation, use and appreciation values largely because of its scenery, high peaks and wide range of existing and potential recreational activities.
- Trails from Highway 16 provide access to forested mountain slopes and to sub-alpine
  and alpine areas. Frontcountry recreation use is high between Oliver Creek and Hells
  Bells Creek and between Coyote Creek and Boulder Creek. Trails provide access to
  scattered small, trout-bearing lakes, views of the peaks, mountain goat viewing,
  mushroom picking and old-growth forest.
- Multi-purpose trails near the highway provide opportunities for education and interpretation.
- The Flint Creek Forest Service Road provides snowmobile access to a spectacular alpine bowl on the side of the Seven Sisters Mountains.
- The park and surrounding special management zones offer exceptional backcountry recreational values, including areas with no motorised access, rolling alpine meadows, alpine lakes, mountain goats, and views of the Seven Sisters peaks, Mount Quinlan and Mount Sir Robert. A route behind the Seven Sisters peaks, through the headwaters of Price and Oliver creeks provides a three to four day backpacking trip. The peaks and glaciers offer challenging climbing opportunities. The proximity of backcountry opportunities close to relatively large population centres and a major highway is particularly significant.
- The park offers an exceptional natural setting for a variety of commercial recreation/tourism opportunities. Current operations focus on low-impact activities such as hiking, mountaineering and backcountry skiing.
- The backcountry wilderness offers important therapeutic values such as solitude, peace, communion with nature and opportunities for learning.

#### **Cultural Heritage Role**

- The area contains important sites identified by First Nations for sustenance, spiritual and cultural purposes (e.g. stripped cedar trees, old occupation sites, medicinal plant collecting sites and berry picking sites) and areas used for travelling, gathering and game harvesting.
- Berry picking (*Vaccinium membranaceum*, *V. ovalifolium* and *Sheperdia canadensis*) is a traditional activity noted by both the Gitxsan and Tsimshian. In the region, prescribed fire was used traditionally by the Gitxsan to improve berry patch production.
- Git xsan and Tsimshian people harvest a variety of plants for medicinal and cultural purposes.

#### **Vision Statement**

This vision statement provides direction for the long-term management of the Seven Sisters park. It describes the desired condition of the park in the future. The vision was achieved by asking people to imagine the desired condition of the Seven Sisters fifty years from now. The vision statement provides context and guidance for managers to make decisions about stewardship, recreation and other activities in the park. It is particularly important to consider the vision when new recreation demands or conservation management approaches arise.

#### The Vision for Seven Sisters Park and Protected Area

The Seven Sisters Park and Protected Area continue to serve important conservation and recreation roles. The park's ecosystems support healthy populations of ungulates and carnivores as well as a variety of small mammals, birds, amphibians and fish. The forests have aged, and the park landscape is approaching its historic seral stage distribution. Rare plant associations are protected, and the meadows have completely recovered from past disturbances by motorised access. The creeks are healthy and used by spawning salmon. Research and monitoring have increased understanding of the park's ecosystems and the organisms that live in them.

Local residents continue to find physical and spiritual sustenance in the Seven Sisters. Gitxsan House members and Tsimshian people continue to supply meat, berries and other resources to their families and community members. School and youth groups visit the Seven Sisters park for the therapeutic opportunities it provides and to learn about cultural and natural values. The Cedarvale Trail has not been promoted in brochures and is used mostly by local residents, including Gitxsan goat hunters and trappers. People continue to pick pine mushrooms in the frontcountry of Seven Sisters Protected Area, but picking is carefully regulated to avoid environmental damage and conflicts among pickers. Domestic water quality is good.

Tourists stay in the area to experience the natural, cultural and recreational values of the Seven Sisters park. Visitors camp in or near the park. People choose between an afternoon guided horseback ride or an interpretative walk, followed by dinner at a small lake and an evening of cultural stories, all led by local residents. Travellers along Highway 16 are drawn to stop by the spectacular views and picnic sites with interpretative signs.

The well-maintained frontcountry trails are popular summer and winter. Most people hike or ski along Boulder and Whiskey Creek trails and the trails linking them in the northern section of the park, and along Oliver Creek Trail in the south. Trail re-routing and maintenance, and the lack of summer motorised activities beyond the Flint Creek parking lot at Km 8 have allowed mountain bikers and horseback riders to spend a day riding up the Flint Creek Road and down Oliver Creek Trail. Snowmobile users continue to visit the alpine bowl at the headwaters of Oliver Creek. A multi-purpose trail has been developed based on the Meanskinisht Logging Road. Coyote Creek Trail provides summer-ground motorised access and there is no other wheeled summer-motorised use of the park aside from designated surfaced roads accessing trailheads.

Although the frontcountry trails see many recreationists, visitor numbers in the backcountry are managed to protect both ecological integrity and backcountry values.

Some visitors choose a guided climbing expedition; others hike or ski around the peaks, travelling from hut-to-hut; still others prefer to hike or ski without either guide or facilities. All backcountry campers practice no-trace camping. Backcountry visitors often see wildlife.

The management of the Seven Sisters Park has evolved to reflect the important connection between the land and local residents, both First Nations and non-aboriginal. First Nations, local community members and the Environmental Stewardship Division work together to develop initiatives matching the long-term vision for the Seven Sisters and the objectives of the management plan. Agencies and communities work cooperatively to manage issues outside the park boundary, particularly those dealing with access and scenic values.

# Relationship with First Nations and Local Communities

### **Relationship with First Nations**

 $\underline{\text{Git}}\underline{x}$ san and Tsimshian First Nations assert traditional territory in the Seven Sisters. The  $\underline{\text{Git}}\underline{x}$ san claim includes the entire park, while the Tsimshian claim lies within the Oliver Creek watershed in the southern half of the park.

The Environmental Stewardship Division has tried to include First Nations in the management planning process with varying degrees of success. The Environmental Stewardship Division learned part way through the planning process that the Tsimshian First Nation (Kitselas Band) claim territory within the park; hence, discussion with Tsimshian representatives started later in the planning process. The Kitselas Band expressed an interest in reviewing the plan, but was unable to allocate their existing resources for this purpose. Attempts to secure funding were unsuccessful or would have potentially affected funding available for higher priority Kitselas interests and consequently were not sought. The Gitxsan First Nation has been more actively involved from the beginning. Opportunities for Gitxsan involvement have included review of the Terms of Reference for the management plan, review of the draft plans, a management planning workshop and direct contact with House Chiefs or representatives and open houses in Gitwangak.

The Environmental Stewardship Division will continue to seek input from Gitxsan and Tsimshian First Nations. The Environmental Stewardship Division seeks to define a special relationship honouring First Nations cultural heritage, and to respect traditional harvesting and cultural activities within the park.

### **Relationships with Local Community**

Seven Sisters park is not an isolated tract of untouched land. Instead, it is a moderately large wilderness park bordered by a major highway and close to small communities. The local communities, both First Nations and non-aboriginal, consider the Seven Sisters to be important to their lifestyle. Currently, local residents comprise a large portion of visitors to the area.

Local communities have an extremely strong tie to the land. Despite high unemployment (60-90%) in many of the smaller communities) and a cyclical, resource-based economy, people are reluctant to leave the Upper Skeena 8. The forest industry and tourism are important land-based employment sectors.

Although the great majority of local people approve of park and protected area status for the Seven Sisters, some also feel that they have sacrificed jobs or lifestyle in the process.

<sup>&</sup>lt;sup>8</sup> A-D Communications (1998) Action 2000: A journey into the human and economic potential of the Upper Skeena. A Forest Sector Economic Action Plan.

Residents, both long-term and recent settlers, want their children and grandchildren to have the opportunity to stay in the area, to be connected to the land and to have some measure of control over local planning. They are often frustrated by lack of involvement in management activities. Paradoxically, because many ongoing planning and management activities occur in the region, committed individuals often tire of extended processes. Also, many government-led processes are considered inaccessible by a large portion of local residents, particularly First Nations people, because of a lack of a shared language or management model.

Area residents hold tremendous local and traditional knowledge. In the process of writing this management plan, communications occurred with elders who had hunted mountain goats with their grandfathers in the Seven Sisters, people who participated in mining exploration decades ago and hikers with 30 years of regular visits to the Seven Sisters. Local residents shared ideas and concerns openly.

Because of its proximity to communities of people who have visited and used the Seven Sisters for decades and centuries, every attempt should be made to involve local people in the stewardship and use of the park. The neighbouring communities of Kitwanga Valley and Gitwangak both have existing societies representing their interests: the Kitwanga Valley Community Association and the Gitwangak Education Society. The Gitwangak Education Society follows the Gitxsan Wilp system and is hence an appropriate link with Gitxsan Chiefs. As well as bringing expertise, these communities, along with other members of the Upper Skeena Tourism Association, can apply for funds that could be used for park management.

#### **Objectives and Strategies**

To develop long-term, co-operative relationships with the Gitxsan First Nation and Tsimshian First Nation concerning the planning, management and operation of Seven Sisters park.

- Continue discussions and building a relationship with Git<u>x</u>san and Tsimshian representatives.
- Through the treaty process, or other mechanisms in place, explore options to involve First Nations in various planning, management and operation initiatives.
- Seek support from First Nations representatives prior to preparing, releasing or displaying detailed information relating to First Nation's culture or history.
- Work with First Nation representatives to identify opportunities for inventories; employment, cultural initiatives, development projects and investigate opportunities related to the Gitxsan Rangers Program. A key focus will be on securing funding for these initiatives from sources other than Environmental Stewardship Division.
- Work with Ministry of Forests and Gitxsan representatives to identify areas to exercise harvests related to traditional uses.

To foster a co-operative relationship between Environmental Stewardship Division and the local community in the stewardship and use of the Seven Sisters park.

- Maintain a liaison with community groups to assist with stewardship of the Seven Sisters. These groups can assist by alerting the Environmental Stewardship Division of upcoming issues, by providing local expertise, knowledge and perspectives on planned management issues, by monitoring wildlife, ecosystems and recreation, and by helping with the development of interpretation and communication strategies.
- Discuss educational signage and interpretative trail development with local community members including representatives of the Kitwanga Valley Community Association, Gitwangak Education Society and Upper Skeena Tourism Association.
- Ensure local communities receive information about local hiring programs for Seven Sisters park.

### Gitxsan Culture and the Seven Sisters

The following section provides a brief outline of Gitxsan culture and society as drawn from community sources. It has not been specifically endorsed by the Gitxsan Treaty Office.

The Seven Sisters Park and Protected Area lies within the traditional territory claims of the Gitxsan First Nation. Specifically, several Wilps, or House groups, have traditional territory within the park boundary (see Map 3): Sakxum Higookw (Lax'skiik/Eagle Clan), Haalus (Ganeda/Frog Clan), Haxbagwootxw (Gisgaast/Fireweed Clan), Wii Hlengwax (Ganeda), Luulak (Ganeda) and Haakasxw (Ganeda).

The traditional, hereditary system is active in the Gitxsan nation. It is a matrilineal system with members of a Wilp tracing their lineage through their mothers. All Gitxsan belong to a Wilp, which is the basic unit for social, economic and political purposes. The Wilp is a collection of closely related people. It consists of one to several families and can number from 20 to more than 200 people. Each Wilp has a hereditary chief. A hereditary chief may have several wing chiefs who perform particular functions for House members such as planning and administering fisheries or forestry work. There are at least 48 House groups, each with their own territory in the Gitxsan nation. The House groups belong to one of the four Gitxsan clans: Lax Gibuu (wolf), Lax Seel/Ganeda (frog), Gisgaast (fireweed) and Lax Skiik (eagle). The feast hall, called the potlatch by some coastal First Nations, is the forum where business, social and political decisions are legitimised in the traditional system. The Gitxsan traditional society also has a series of laws dealing with conservation and other activities on House territories. Traditional history and laws are passed on orally. Each Wilp has an adaawk, or oral history, which describes important events in the House's existence. The carvings on a totem pole record parts of a House's adaawk and signify ownership of a territory by a Wilp and its hereditary chief.

The raising of a pole is one of the most significant events a chief can be expected to accomplish during their lifetime. It formally acknowledges the continuous link between the past and the future and between people and the land. The raising of a House crest pole is a memorial to a generation of House leaders and a periodic renewal of the

dynamic relationship between the people and their land. Putting the elaborately carved pole in the ground renews the bond between the group and the land by focussing the will and desire, the labour and the wealth of a whole generation of House chiefs on their crest pole. This is what the chiefs mean when they say that the power of the generations is suffused into the pole each time it is raised.

Some of the House groups within the Seven Sisters park have totem poles erected in the nearby Gitxsan community of Gitwangak and all five of the Wilps have connections to the poles there. The Wilps belonging to the Frog Clan (Ganeda) are well represented in the poles at Gitwangak. The Ganeda of Gitwangak can be organised into two major family groups: Wii Hlengwax, Haalus and Nekt' in one and Lelt, Haakxw, A'laist, Luulak and Taxt'ts'ox in the other. Some of these Wilps do not have territory within the park but because of these major family groupings, they have a strong interest due to their connections to the Wilps who are within the boundary. Adaawks for the five Wilps reveal an ancient migration from places northeast and north of the Seven Sisters, often involving a flood. 10 As recorded in the adaawk, Gitxsan people settled the Seven Sisters area some time between 12,000 and 9,000 BP.

House chiefs have always managed all aspects of their territories, and have been responsible for ensuring the health of the land as well as House members. Traditional activities include goat hunting (for meat and fur), trapping, cedar bark stripping, berry picking (Vaccinium membranaceum, V. ovalifolium and Sheperdia canadensis) and harvesting of a variety of plants for medicinal and cultural purposes. In the region, prescribed fire was used traditionally to improve berry patch production. The Skeena River has been crucial to the Gitxsan people—traditional fishing holes continue to play an extremely important cultural role. The park contains important sites used by the Gitxsan people for sustenance, spiritual and cultural purposes (e.g. stripped cedar trees, old occupation sites, medicinal plant collecting sites and berry picking sites) and areas used for travelling, gathering and game harvesting. The Seven Sisters was, and is, important to Gitxsan House members as a source of meat, fur, berries and other plants. The Gitxsan people, who have lived in and used the area for thousands of years, still travel through the park for sustenance, educational and spiritual purposes, often using the same cultural infrastructure and sites used by their ancestors. Recently, pine mushrooms have provided a much needed source of local revenue for local Gitxsan and non-Gitxsan residents.

The Gitxsan had a well-organised society before contact with Europeans and are using the traditional political, social, legal and economic systems, based on House groups, in self-government initiatives. Economic activities by House groups are tied to selfgovernment strategies. House groups have formed co-operatives and trusts to undertake a commercial inland fishery and pursue pine mushroom harvesting and export. Direct action on the land by House members and the Delgamuukw Supreme Court of Canada decision in 1997 has resulted in further initiatives in forestry. Some House groups in the Gitxsan territories are practising alternative forestry, such as partial cutting systems rather than clearcutting, and are carrying out silviculture activities on their lands.

<sup>&</sup>lt;sup>9</sup> Dr. Richard Daly. *Our Box Was Full*. Volume 2. Anthropological Opinion on the Nature of the Gitxsan and Wet's uwet'en Economy.  $^{10}$  Karen Erickson.  $Ganeda\ Poles\ of\ Gitwangak$  . Gitwangak Education Society, September, 1995.

Cultural ecotourism activity is on the increase with the Lax Skiik undertaking one of the major local initiatives on their territory west of the Skeena River bordering the Seven Sisters park.

Economic advances based on the traditional system are incremental because the Gitxsan still operate under the jurisdictions of the provincial or federal governments and rely on the willingness of those governments to devolve power. The areas of health, justice and education have seen the most change under the self-government strategies. Developing self-government agreements in the area of land and resources has proved more difficult. Lack of progress on how to co-manage the land base often results in conflict. Some natural resource initiatives are working, especially in fisheries. The Gitxsan Watershed Authority has taken over many of the conservation activities previously enforced by federal fisheries officers. In the area of conservation and resource management, the Gitxsan have established a sophisticated computer mapping system which some House groups use to monitor and make plans for their territories.

The Gitxsan, along with their neighbours to the southeast the Wet'suwet'en, began a court case in 1984 to achieve recognition of ownership, jurisdiction and self-government of their traditional territories from the governments of British Columbia and Canada. The action became commonly known as the Delgamuukw court case, named after one of the main Gitxsan hereditary chief plaintiffs. In December, 1997, the Supreme Court of Canada ruled on the case. The landmark Delgamuukw decision set a new, more clearly defined test for aboriginal title and raised the stance of oral history, or the Gitxsan adaawk, for use in the court of law. Throughout the 13 years of the Delgamuukw court case, in the three years since, and for the more than 100 years since European contact, the Gitxsan have been involved with negotiations and consultations with western governments regarding the natural resources on the traditional territories. In these meetings the Gitxsan have always taken the position that they have title to the land and have unextinguished aboriginal rights tied to the land. Frustration has mounted as many Gitxsan believe they are not acknowledged as stakeholders because their aboriginal title is not recognised by British Columbia or Canada. This belief was cited as one of the main reasons that House groups did not become deeply involved in the public consultation process associated with drafting a management plan for the Seven Sisters park. It is the strategy of some House groups that with limited human and financial resources, the only option is to make difficult choices about where best to expend time and energy regarding consultation on the territory. For many this means concentrating on higher level negotiations and also on court actions <sup>11</sup>.

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<sup>&</sup>lt;sup>11</sup> Gitxsan perspective as relayed to and understood by BC Parks consultants. Perspective does not necessarily reflect the provinces position or understandings.

# **Seven Sisters Park Zoning**

#### Introduction

The Environmental Stewardship Division uses zoning to assist in the planning and management of provincial parks. In general terms, zoning divides a park into logical units to apply uniform and consistent management objectives based on natural, cultural and recreational values; existing and projected patterns of access and recreation use in relation to specific conservation goals. The zones reflect the intended land use, the degree of human use, the level of management and development required. At one end of the spectrum, the Intensive Recreation Zone indicates a portion of a park that is appropriate for high levels of recreation and facility development. At the opposite end, the Wilderness Conservation Zones indicate areas to receive the highest levels of protection and minimal human presence. Between these extremes, three additional zones provide a range of conservation and recreation priorities. Figure 1 provides a detailed list of activities allowed within the Seven Sisters Park and Protected Area based on the applicable zone.

As indicated by Map 4 Seven Sisters park is divided into three zones.

Most of Seven Sisters park is zoned Wilderness Recreation. The existing frontcountry trails, two areas near Highway 16 and a portion of the backcountry are zoned as Natural Environment to manage for higher levels of recreational use in a natural setting. Part of the Natural Environment Zone is designated for winter motorised use. Finally, access roads and trailhead parking, as well as three parcels of land considered for a future frontcountry campground or day-use area next to Highway 16, are zoned for Intensive Recreation.

Local communities (First Nations and non-aboriginal) are interested in building simple backcountry huts on a multi-day route around the Seven Sisters (see Backcountry Hiking and Skiing Section, p. 55). Additionally, local, regional and First Nations residents have expressed an interest in providing appropriate facilities in the backcountry to accommodate use while minimizing impacts on the environment. To accommodate local interest this management plan allows for appropriately planned facilities in both the Natural Environment Zone and the Wilderness Recreation Zone consistent with management plan direction (p. 57).

#### **Wilderness Recreation Zone**

#### **Zone Objective**

To protect an undisturbed natural landscape and to provide backcountry recreation opportunities dependent on a pristine environment.

#### **Zone Description**

This zone includes the entire backcountry excluding trails referenced in Appendix III that run into the park from Highway 16. The Wilderness Recreation Zone is ~36,800 hectares or 94% of the park.

#### **Zoning Rationale**

Zoning most of Seven Sisters park as Wilderness Recreation is consistent with maintaining the tremendous backcountry recreation values of the park and with offering an appropriate level of protection for conservation values. The landscape is remote and relatively undisturbed, offering a tremendous wilderness experience. Most of this area receives little use, except for areas of high pine mushroom productivity during the mushroom harvesting season. Levels of use will likely increase over the next decade as people travel to the park to explore its backcountry. To protect the wilderness character of this zone, mountain biking and horseback riding are not allowed off of designated trails. The trails themselves are zoned Natural Environment. In general, use will be controlled as necessary to protect the natural, cultural and recreational values of the Wilderness Recreation Zone.

To protect mountain goat and wolverine habitat, motorised activities are not allowed outside of designated summer heli-hiking landing sites (p. 48).

Pine mushroom harvesting is allowed within the portion of the Wilderness Recreation Zone not designated as a Class A Park and is consistent with recommendations in the Seven Sisters Land Resource Use Plan.

To accommodate local interest this management plan allows for appropriately planned structures consistent with management plandirection on facilities (p. 57) within the Wilderness Recreation Zone.

#### **Natural Environment Zone**

#### **Zone Objective**

To protect scenic values and to provide a range of opportunities for recreation in a largely undisturbed natural environment.

#### **Zone Description**

This zone includes corridors around the old roads and trails referenced in Appendix III. It also includes an area of land adjacent to highway 16 between Boulder Creek and Coyote Creek and a small area adjacent to the Watson Lake Trail. An area at the head of Flint Creek within the Oliver Creek drainage has been zoned Natural Environment to allow a winter-motorised area (Map 4). The Natural Environment Zone is ~2,100 hectares or 5% of the park.

#### **Zoning Rationale**

The non-motorised area includes trails for hiking and skiing, as well as mountain biking and horse riding where trail conditions permit. The trails running into the park from Highway 16 receive moderate to high levels of use. Use will likely increase over time. These trails will be maintained to appropriate standards, and some minimal facility development may occur as demand, safety and environmental protection require.

The section between Boulder Creek and Coyote Creek is zoned to allow development of an interpretative or multi-purpose trail in the area – a concept strongly supported by local communities. The area around Watson Lake Trail is zoned Natural Environment to allow for maintenance of rustic campsites and family recreation near the lakes.

The winter-motorised area allows snowmobile access to a bowl at the base of the Seven Sisters peaks. Summer motorised recreation is allowed on the Coyote Creek Trail and on the Meanskinisht Road until it is deactivated, subject to direction under the access management component. Designation of these areas is consistent with the recommendations of the Seven Sisters Planning Group.

To accommodate local interest, this management plan allows appropriately planned structures consistent with management plan direction on facilities (p. 57) within the Natural Environment Zone.

Pine mushroom harvesting is allowed within the portion of the Natural Environment Zone not designated as a Class A Park, consistent with recommendations from the Seven Sisters Land Resource Use Plan.

#### **Intensive Recreation Zone**

#### **Zone Objective**

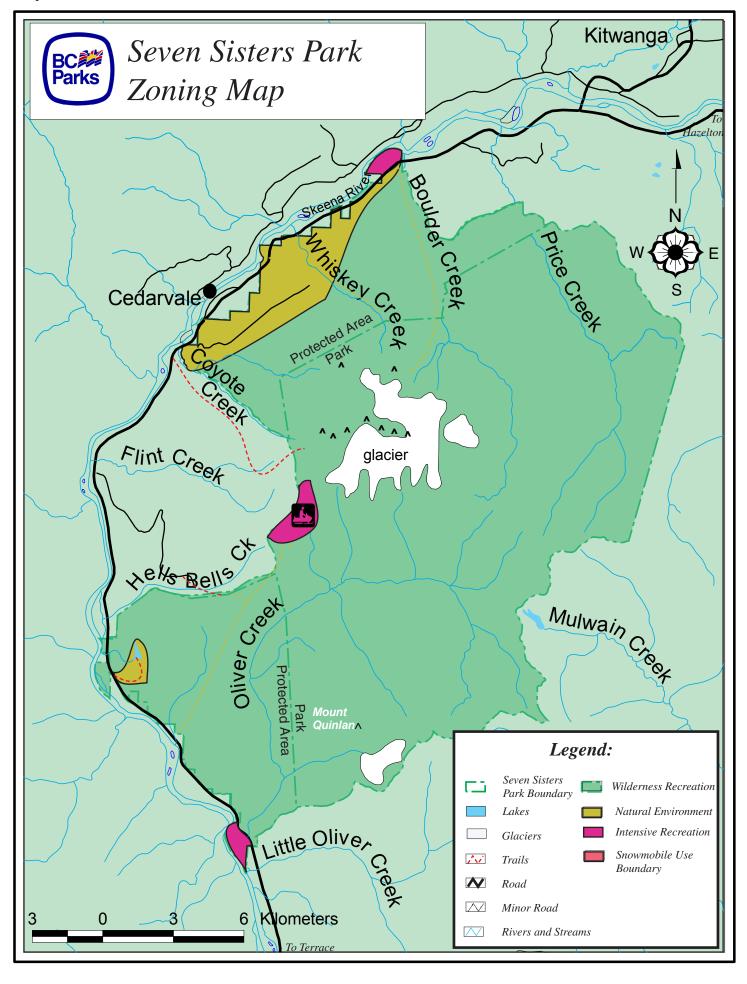
To provide for a variety of readily accessible, facility-oriented outdoor recreation opportunities.

#### **Zone Description**

This zone includes access roads to trailheads, parking areas and potential future campground or intensive day-use areas. The Intensive Recreation Zone is 300 hectares or less than 1% of the park.

#### **Zoning Rationale**

The small areas zoned as Intensive Recreation are, or will be, the areas most impacted by visitor use. Roads leading to the trailheads of trails referenced in Appendix III, and the trailhead parking lots, are included in this zone. Additionally, two parcels of land between the Skeena River and Highway 16 have been zoned for potential campgrounds, or intensive day-use. The intent is to allow flexibility in choosing the best site following public consultation and impact assessment.



Finally, an opportunity to designate a small portion of land (30 hectares or less) adjacent to Highway 16 to allow a small day use development with a scenic view of the Seven Sisters is provided. As no suitable sites have been selected, the area is not shown on Map 4.

Hunting is generally not allowed in Intensive Recreation zones to protect public safety. Because campgrounds and/or day-use areas have not yet been developed, hunting will be allowed until such facilities (and associated high use) exist.

Figure 1. Zone Activity, Use and Facility Application

Activity/Use/Facility	Wilderness Recreation Zone	Natural Environment Zone	Intensive Recreation Zone
Activity			
Beach activities (swimming, sunbathing, etc.)	Y	Y	Y
Boating (power)	N	N	Υ
Boating (non-power)	Y	Υ	Υ
Camping – no trace	Y	Υ	N
Camping – other	N	М	Υ
Commercial recreation (facility-based)	M	М	М
Commercial recreation (nonfacility based)	Y	Υ	Y
Fishing	Y	Y	Y
Hunting	Y	Y	M (Not allowed upon facility development)
Natural and cultural values appreciation (birding, photography, wildlife viewing)	Y	Y	Y
Pine mushroom harvesting	Y (in protected area portion only)	Y (in protected area portion only)	Y (in protected area portion only)
Recreational gold panning/rock hounding	N	N	N
Scientific research (manipulative activities)	М	М	М
Scientific research (specimen collection)	M	М	М
Skiing (downhill & cross-country track based)	N	N	N
Skiing (helicopter or cat-assisted)	N	N	N
Skiing (other)	Y	Y	Y
Trapping	Y	Y	M (Not allowed upon facility development)
Use			
Traditional aboriginal uses and activities	Y	Υ	Y
Aircraft access(floatplanes where feasible and helicopters in designated sites only)	Y	Y	N1
Exotic insect/disease control	N1	N1	Υ
Filming (commercial)	М	М	М
Fire management (prescribed fire management)	M	М	М
Fire management (prevention)	M	М	Y
Fire management (suppression)	М	М	M (yes upon facility development)

Activity/Use/Facility	Wilderness Recreation Zone	Natural Environment Zone	Intensive Recreation
Figh stocking and aphanograph	N	M	<b>Zone</b> N
Fish stocking and enhancement  Forest insect/disease control	N1	M	Y
Grazing (domestic livestock)	N N/A	N M	N M
Guide outfitting (fishing)			
Guide outfitting (hunting)	Y	Y	M (Not allowed upon facility development)
Guide outfitting (nature tours)	Υ	Υ	М
Guide outfitting (river rafting)	N	N	М
Horse use/pack animals (not exotic)	М	Y (designated trails only)	М
Motorised Water access	N	N	М
Non-motorised water access	Υ	Υ	М
Noxious weed control	N1	Υ	Υ
Off-road Access (non-mechanical - dog sleds, horse sleds)	M (designated trails only)	M (designated trails only)	N
Off-road Access (mechanical activities)	M (designated trails only)	Y (designated trails only)	Y
Off-road Access (motorised - not snowmobiles)	M (designated trails only)	M (designated trails only)	N
Off-road Access (snowmobiles)	N	Y (designated trails only)	N
Pack animals (exotic)	N	N	N
Facility			
Administrative buildings and compounds	N	N	М
Backcountry huts and shelters	М	М	N
Boat launches	N	N	М
Campgrounds and picnic areas (vehicle access and serviced))	N	N	Y
Campgrounds (other)	М	Y (Watson Lake)	N
Communication sites	N	N	N
Interpretation and information buildings	N	M	Υ
Roads and parking lots	N	N	Y
Ski hills and snowplay areas	N	N	N
Lodges and other serviced accommodation	М	М	N
Trails (hiking, cycling, cross-country skiing)	М	Υ	Y
Utility corridors	N	N	N
Water control structures	N	N	N

 $<sup>\</sup>begin{split} Y &= \text{allowed subject to conditions identified in the management plan} \\ M &= \text{may be permitted if compatible with protected area objectives} \\ N &= \text{not allowed} \\ N1 &= \text{allowed for expressed management purposes only} \\ N2 &= \text{present and allowed to continue, but not normally allowed} \end{split}$ 

# Management of Natural and Cultural Heritage Values

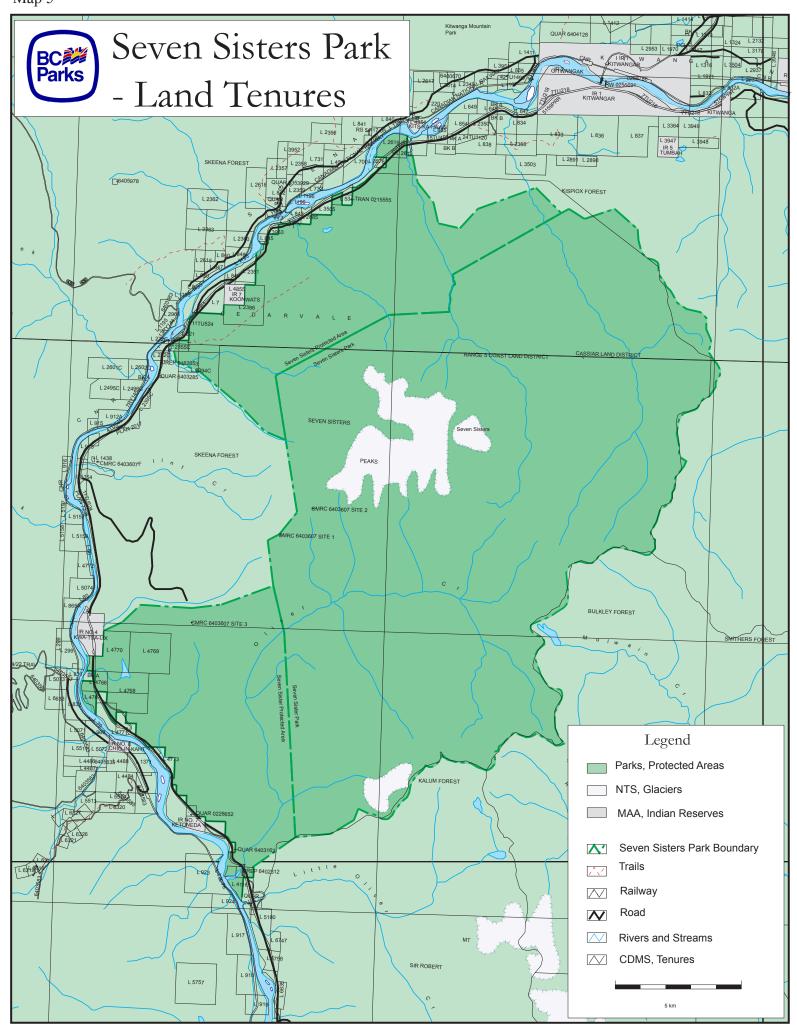
#### Land and Resource Tenures

#### Tenures within the Park and Protected Area

A small section of the old Highway 16 juts into the park at the start of the Watson Lake Trail. This road is well maintained until the Watson Lake trailhead.

Trapping has long been a traditional activity in the Seven Sisters. Five traplines are registered within the Seven Sisters park. The Environmental Stewardship Division issues Park Use Permits for trapline tenures. One trapline has three registered cabins within the park. These cabins are all within the designated snowmobile area; hence cabin maintenance via snowmobile is an acceptable use (see Snowmobiling Section, p. 63). Trapline tenures may be sold. Personal First Nations trapping, as with other traditional activities, are expected to continue.

The Seven Sisters park falls within the guiding territory of a single guide-outfitter. The outfitter is not currently operating.



#### **Objectives and Management Strategies**

To allow trapping and guided hunting within the park.

- Provide Park Use Permits to registered trappers. Specify and authorise, as appropriate, any required use of firearms or snowmobile access for trapline management in permit. Permit clauses to consider management plan direction.
- Discuss status of cabins with trapper; post signs identifying cabins as private if necessary.
- If fur-bearer populations are under stress, work with the Fish and Wildlife Science and Allocation Section and trapline holders to manage activities so that animal populations are not threatened.
- Provide Park Use Permits to registered hunting guides. Work with the Fish and Wildlife Science and Allocation Section and guides to assess hunting pressure and regulate quotas as necessary to protect wildlife populations.
- As per Ministry policy, consider purchase of trapelines voluntarily offered for sale.

#### **Tenures Adjacent to the Park and Protected Area**

Most of Seven Sisters park is surrounded by Crown land. Starting from the northern tip of the park and travelling clockwise, a General Resource Development Zone within the Kispiox Forest District runs along the east boundary of the park down to the Mulwain Creek drainage. Mulwain and Red Canyoncreeks, Special Management zones within the Bulkley Forest District, continue to the east and south. Along the south border of the park, Little Oliver Creek is managed under General Resource Guidelines in the Kalum Forest District. Highway 16 and parcels of private land border the west side of the park. A General Resource Development Zone within the Kispiox Forest District juts into the park midway. Five small parcels of land between Highway 16 and the Skeena River are included in the park. Map 5 shows District Lots and tenures adjacent to and within Seven Sisters park.

As a result of the potential impacts of development activities on conservation and recreational values, the rest of this section discusses surrounding land in more detail.

Mulwain and Red Canyon creeks, adjacent to the park to the southwest, are designated as a Special Management Zone by the Bulkley LRMP. The Bulkley LRMP specifies that the area should be managed for low intensity, low impact recreational use. The same area is designated as having no summer motorised use by the Bulkley Recreation Access Management Plan. The Ministry of Forests' Small Business Forestry Enterprise Program is currently harvesting to the north of Mulwain Creek. The logging road will end about 6 kilometres from the park boundary, and will be deactivated after harvesting in five to seven years. Future, as yet unplanned, harvesting will take place closer to the park boundary. The Ministry of Forests is expected to complete a total chance development plan for the area over the next few years.

The Seven Sisters Planning Group recommended that the headwaters of Mulwain Creek be included in the protected area. Unfortunately, the Bulkley LRMP had concluded their planning before receiving this recommendation. The status of Mulwain Creek will be considered when the Bulkley LRMP is next revised or as deemed appropriate by government and the Bulkley Monitoring Committee.

Little Oliver Creek and Mount Sir Robert, to the south of the park, were considered as part of the Kalum LRMP. The Seven Sisters Planning Group recommended the area be designated a Special Management Zone. The Kalum LRMP has considered this recommendation and decided that Kalum LRMP General Resource Development Guidelines are appropriate. Bell Pole Co. Ltd. holds one chart in the Little Oliver Creek area.

Highway 16, running along the Skeena River, forms the general boundary along the west and northwest of the park, between Oliver and Hells Bells creeks and between Coyote and Boulder creeks. Several small parcels of private land are dotted between Highway 16 and the park. Five small pieces of Crown land between Highway 16 and the Skeena River are included in the park. Adjacent to the park, the Ministry of Transportation holds several gravel removal reserves; Department of Fisheries and Oceans holds a reserve to conduct fisheries research; and Seven Sisters Ventures Inc. has registered an application for commercial backcountry recreation, consisting of a base for tramway access across the Skeena River.

General Resource Development zones within the Kispiox Forest District lie between Hells Bells and Coyote creeks on the west (Flint Creek General Resource Development Zone) and between Boulder and Price creeks on the north. Logging and mining roads within the Flint Creek GRD zone are used to access the park. The West Kitsuns and Kitsuns watersheds to the east of the park are also General Resource Development zones. Considerable development is proposed in the West Kitsuns Landscape Unit, posing concerns over increased access into the backcountry of the park and over risks to wildlife. Skeena Cellulose International holds the Flint Creek chart between Hells Bells and Coyote Creeks and West Kitsuns chart, and Kitwanga Lumber Co. Ltd. holds the Boulder Creek and Kitsuns charts.

#### **Objectives and Strategies**

To work co-operatively with agencies, companies and park neighbours to ensure activities outside the park do not impact or have minimum impact on values within the park.

• Work co-operatively with communities and agencies to minimise impacts of development on park values, (see Backcountry Values Section, p. 58).

*To co-ordinate management activities within the park with those outside the park.* 

• Liaise with stakeholders about management decisions that may affect their interests.

# **Pine Mushroom Harvesting**

The Seven Sisters Park contains large areas of pine mushroom (*Tricholoma magnivelare*) habitat in both ICHmc2 and CWHws2 biogeoclimatic subzones. Harvesting pine mushrooms is an important economic and recreational activity for local residents, and is part of the recent history of the Seven Sisters. Average annual harvests are estimated at approximately 7,000 kg, with a high of almost 50,000 kg in 1996<sup>12</sup>.

Local residents estimate that up to 100 people per day pick mushrooms at the peak of the season, for an estimated total of 1,000 person days <sup>13</sup>. During mushroom picking season (mid-August to mid-October, with a peak in late September), all pullouts and parking spaces are regularly filled.

Following the recommendations of the Seven Sisters Planning Group, the productive frontcountry portion of the park was designated a protected area rather than a Class A Park expressly to allow pine mushroom harvesting subject to the protected area order (Appendix I), conservation requirements or future provincial regulations.

#### **Issue-Environmental Conservation**

Although many pine mushroom pickers are careful not to damage the forest floor during picking hoping to return to harvest the following season, some pickers are less careful. The most common damage results from raking the ground to expose mushroom caps. Other impacts result from people leaving garbage, cutting firewood and modifying forested areas to facilitate camping.

# Issue – User Safety

The high economic value of pine mushrooms has led to confrontations between pickers. Some pickers carry guns, and local people report that they have been threatened. There has been at least one death in the area attributed to mushroom confrontations.

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<sup>&</sup>lt;sup>12</sup> Seven Sisters Planning Group (1997) Land Use Recommendations for the Seven Sisters Planning Area. Report to Prince Rupert Inter-agency Management Committee.

Allen Gottesfeld, personal communication.

Mushroom harvesting is currently unregulated in British Columbia. Regulation is complex because although many pickers are local, others come from outside the region, outside the province and outside Canada. Many local pickers recognise and respect "personal" picking areas of their neighbours. Non-local pickers have no way of knowing about such informal agreements. The Environmental Stewardship Division will work with local residents and government agencies to adopt provincial regulations as they are developed. Meanwhile, local communities have expressed interested in regulating mushroom picking and have even tried a system of registration. Unfortunately, their attempt met with limited success.

#### **Issue – Frontcountry Camping**

Because few convenient camping sites occur near productive mushroom forests, most mushroom pickers do not camp in the Seven Sisters park. Pine mushrooms must be transported to their destination rapidly to maintain their value. Hence, pickers leave the forest daily to take mushrooms to buyers, either returning home or travelling to a camping spot outside the park. Development of a campground next to Highway 16 would encourage more mushroom pickers from outside the region to stay and pick within the park. An increase in pickers might lead to increased tension and escalated confrontations. See Frontcountry Camping Section, p. 65, for related objectives and strategies.

#### **Objective and Strategies**

To allow commercial and recreational pine mushroom picking in the area designated as the Seven Sisters Protected Area provided that picking does not damage natural or cultural values or threaten user safety.

- Monitor ecological impacts in high value pine mushroom areas; design survey routes to sample productive areas.
- Encourage protected area users to report damage.
- Define and encourage best-use mushroom harvesting practices. Use Ministry of Forests guidelines in the interim.
- If picking damages protected area values, first discuss potential solutions with local community members, then, if necessary, consider closure of the Seven Sisters Protected Area (or portion of) to pine mushroom picking.
- Monitor use of Seven Sisters Protected Area by pine mushroom pickers.
- Monitor overflow parking and consider providing pullouts in popular picking areas to minimise environmental damage and impact on other visitors.
- Review picking periodically for necessity of regulating harvesting.
- Work with mushroom pickers, First Nations, local communities and government agencies to adopt provincial regulations as they are developed.
- Review and respond to community initiatives to regulate harvesting; assist initiatives

as appropriate. Discuss pine mushroom management and regulation with First Nations as required.

#### Issue - Forest Succession and Pine Mushroom Productivity

Pine mushroom productivity may decline as forests age from mature to old structural stages <sup>14</sup>. Much of the forest in the Seven Sisters park is currently in the young or mature structural stage, and is ideal mushroom habitat <sup>15</sup>. Over time, the suitability of forests within the Seven Sisters Protected Area for pine mushrooms may decrease. Although pine mushrooms are one of the natural values of the Seven Sisters, the protected area was not created to protect pine mushroom habitat from natural ecological processes such as forest succession. Therefore, the forest will not be managed to maintain or enhance pine mushroom habitat. Protecting mushroom habitat is one of many considerations discussed under Fire Management, p. 40.

#### Water

Seven Sisters park contains several watersheds (Price Creek, Boulder Creek, Whiskey Creek, the northern arm of Coyote Creek, the southern part of Hells Bells Creek, Oliver Creek and several smaller watersheds) running into the Skeena River. Glaciers feed the major creeks; tributaries may be fed by springs or seepage. Glacier-fed creeks already contain sediment. Additional sediment introduced upstream has the potential to flow downstream and disturb spawning habitat for salmonids and tailed frogs (see Wildlife Section p. 44). Several small lakes are scattered throughout the park.

The park includes small lengths of the Skeena River. Activities on the Skeena should not influence the park values; neither should activities within the park influence the Skeena River. If a frontcountry campground is developed between Highway 16 and the Skeena River, campground development must consider impacts to the Skeena (see Frontcountry Camping Section p. 65).

Several water licences for domestic use exist outside the park on streams and lakes that flow from the park. These licences are in three areas: between Boulder and Price creeks, in Cedarvale/Meanskinisht and on Bergson Lake between Hells Bells Creek and Watson Lake. Activities within the Seven Sisters park could potentially impact the water running to Cedarvale residents as an old logging road within the park crosses two creeks providing domestic water.

## **Objective and Strategies**

To maintain the natural quantity and quality of the water resources and their associated ecological processes in the Seven SisterspPark.

• Minimise sediment addition to creeks during park operations and trail construction.

<sup>&</sup>lt;sup>14</sup> Trowbridge and MacAdam (1999) Site relationships of Matsutake mushrooms in the Kalum and Kispiox Forest Districts. In: Studies of the pine mushroom (*Tricholoma magnivelare*) in the Skeena-Bulkley Region. Northwest Institute for Bioregional Research, Smithers, BC.

<sup>&</sup>lt;sup>15</sup> McLennan D, Veenstra V (2000) Ecosystem mapping of Seven Sisters Provincial Park. Report to BC Parks, Skeena District.

Design creek crossings to minimise sedimentation (e.g. install bridges).

• Include information on protecting natural water systems in brochures and on interpretative signs.

#### **Issue – Domestic Water Supply**

Meanskinisht and Tomlinson creeks, within the park, supply water to residents of Cedarvale. Forests near these creeks were harvested 15 – 20 years ago and the Meanskinisht Logging Road was built over culverts placed in the two creeks. Residents have concerns that their drinking water has been degraded by sedimentation caused by harvesting and the road. Recent road assessment<sup>16</sup> indicates that the Tomlinson Creek culvert is undersized. In addition, the back-up cross ditch, constructed of fine-grain soil, is prone to a wash out. The culverts will require regular monitoring and maintenance to minimise sediment input into the streams. See Access Management Section (p. 69) for objectives and strategies relating to the Meanskinisht Logging Road.

# Vegetation

Vegetation provides habitat and contributes to the cultural and recreational values of the Seven Sisters park. The vegetation shifts with the climb from valley bottom to mountain top, reflecting a range of biogeoclimatic subzones along elevation bands, from moist cold Interior Cedar Hemlock subzone, Hazelton variant (ICHmc2), through the wet submaritime Coastal Western Hemlock subzone, montane variant (CWHws2) and the moist maritime Mountain Hemlock subzone, leeward variant (MHmm2), to the Alpine Tundra Zone (AT). The diversity of trees is unequalled in northern British Columbia, with nine major species: western hemlock, lodgepole pine, subalpine fir, amabilis fir, paper birch, western red cedar, trembling aspen, hybrid Engelmann spruce, mountain hemlock and black cotto nwood. This diversity is, in part, due to the transitional climate features of coastal, interior and northern ecosystems occur here.

Over 2,000 hectares of sites suitable for rare plant associations <sup>17</sup> lie within the park. These are site series where the old forest structural stage is considered endangered or threatened as defined by the Conservation Data Centre. The most prevalent rare site series are the ICHms2/02 (western hemlock-lodgepole pine-Kinnikinnick-*Cladonia*) and CWHw2/02 (lodgepole pine-Kinnikinnick), associated with the many rock outcrops and cliffs in the protected area. About 100 hectares of floodplain ecosystems (CWHws2/07,08; Sitka spruce-salmonberry and cottonwood-red osier dogwood) exist mostly within the Oliver Creek drainage. About 10 hectares each of CWHsw2/06 (amabilis fir-western red cedar-devil's club) and ICHmc2/07 (western red cedar-Sitka spruce-horsetail-skunk cabbage) are found on upland alluvial fans and inter-ridge depressions respectively. Two tiny patches of CWHws2/10 (lodgepole pine-*Sphagnum*) are located near Hells Bells Creek. Only four hectares of these 2,000 hectares, however, are currently in the old forest structural stage; hence, the Seven Sisters park has the *potential* for many rare plant associations as the forest ages.

<sup>17</sup> Information in this paragraph all from McLennan D, Veenstra V (2000) Ecosystem mapping of Seven Sisters Provincial Park. Report to BC Parks, Skeena District.

<sup>&</sup>lt;sup>16</sup> McElhanney Consulting Services Ltd. (2000) Assessment of roads in Seven Sisters Protected Area. Report to BC Parks, Skeena District.

Within the park, most of the old forest lies within the Mountain Hemlock biogeoclimatic zone. Small patches of forest over 250 years in the Coastal Western Hemlock exist in the Oliver Creek drainage, but very little old Interior Cedar Hemlock. Overall, about 25% of the forest within Seven Sisters park is over 250 years old, compared with more than 90% over 250 years common to unharvested watersheds throughout the Kispiox Forest District <sup>18</sup>. The high proportion of young forest in Seven Sisters park is due to a high number of recent fires, likely started by humans. Because of fire, forests in the Boulder and Whiskey Creek watersheds are mostly about 120 years old, and forests in the lower Oliver Creek watershed are 60 – 100 years old.

Human history has affected, and continues to affect, the vegetation of the Seven Sisters. Fires started by humans, whether for improving berry patches or accidentally set, have altered the age structure of the forest. The Gitxsan people have traditionally used prescribed fire as a management tool throughout the region. The high proportion of young forest in the park relative to the rest of the forest district suggests that recent fires were ignited by humans and accidental. Fire suppression also changes age structure, although the impacts of suppression are relatively small in ecosystems with rare or infrequent stand-initiating events (as the ecosystems found in the Seven Sisters are defined 19). Roads built in the late 1960s for mineral exploration still exist. At the Magnetron Mine Site, on the Coyote Creek Trail just outside the park, dilapidated remains exist of several brick buildings. Forest harvesting has removed trees from five over 40 hectare stands near Cedarvale and between Boulder and Whiskey creeks. Recently, summer motorised recreationists have extensively damaged wet subalpine meadows in the Oliver Creek drainage. Frontcountry campers at Watson Lake have also left their marks on nearby trees.

## **Objective and Strategies**

To maintain current ecosystems, protect rare, endangered or sensitive plant communities as they are identified, avoid introducing non-native vegetation and re-establish natural (pre-contact) seral stage distribution on the landscape.

- See Fire Management Section (p. 40) for discussion of seral stage distribution.
- Develop vegetation management plan identifying strategies for protecting rare and sensitive species, linking with adjacent forest ecosystems, and for discouraging introduced species.
- Work with forest companies to minimise impacts of forest harvesting on the park and impacts of park management on the adjacent working forest.

#### **Issue – Protecting Disturbed Meadow Ecosystems**

Past summer motorised use has damaged the integrity of vulnerable meadow ecosystems. Rutting and channels caused by off-trail ATV and motorbike use have resulted in compaction, erosion and changed hydrology in a series of subalpine and alpine meadows

<sup>&</sup>lt;sup>18</sup> Seven Sisters Planning Group (1997) Land Use Recommendations For the Seven Sisters Planning Area. Report to Prince Rupert Inter-agency Management Committee.

<sup>&</sup>lt;sup>19</sup> BC Forest Practices Code Biodiversity Guidebook (1995).

along the Oliver Creek Trail (from about Kilometre 11 to the end of the trail). Damage to wet meadows may take 10-20 years to heal (ruts will fill with sphagnum)  $^{20}$ . Original plant communities will recolonise the disturbed area over a longer period. Seed sources still exist within the meadows, hence active rehabilitation is likely not necessary once the damage stops.

In the past, ATV and motorbike users travelled to the Oliver Creek meadows via one of two routes. Most people parked on the Flint Creek Road in the General Resource Development Zone and travelled along an unnamed trail crossing Hells Bells Creek; others travelled up Oliver Creek Trail entirely within the park. Access control is not feasible within the park for the Flint Creek Route. Some users are unaware of the extent of the damage their activities cause.

Non-motorised activities can also damage meadows. Horseback riding, mountain biking and hiking off packed trails all damage soft, moist ground. While recovering, meadow plant communities are particularly sensitive to introduction of invasive weeds. Horse droppings are one means of weed introduction.



ATV damage in Oliver Creek Meadows

## **Objectives and Strategies**

To protect fragile wet meadow communities from damage due to recreational use.

To discourage the establishment of non-native vegetation in disturbed meadow communities.

• Prohibit summer motorised use of the Seven Sisters park except on designated routes (see Access Management).

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<sup>&</sup>lt;sup>20</sup> Allen Banner, Ministry of Forests, personal communication.

- Work with Kispiox Forest District to prohibit summer motorised access to the Oliver Creek meadows via the Flint Creek Road. Use barriers as needed, placed as close to the park boundary as possible. Maintain access along Flint Creek Road for snowmobiles.
- Develop and deliver educational information describing the values of the meadow communities, their sensitivity to disturbance, time to recover and means to avoid damage. Include this information in the Seven Sisters brochure (see Communications, p. 73), and on information signs at the Oliver Creek Trailhead within the park, and at the Coyote Creek trailhead and Flint Creek Road parking lot outside the park.
- Mitigate impacts of non-motorised recreation in sensitive areas, if necessary
- Prohibit use of Oliver Creek Trail by horseback riders and mountain bike riders unless the meadows are healed and the Oliver Creek Trail is upgraded and hardened appropriately.

To monitor damage to meadows:

- Establish series of photopoints to document changes in meadow vegetation.
- Work with local park users and recreational guides to continue to compile photographic record of meadows.

To rehabilitate damaged meadow communities and restore meadow hydrological regime.

• If necessary, rehabilitate damaged meadows.

# Fire Management

Direction for establishing fire management objectives come from BC Parks policy<sup>21</sup>, from the Seven Sisters Planning Group recommendations and from a Memorandum of Understanding between the BC Ministry of Forests and BC Parks. The Seven Sisters Planning Groups recommends as an objective "To identify the role of fire in ecosystem maintenance and to protect important values and resources from loss to wildfire."

Fires, along with other agents of natural disturbance, kill tracts of forest, creating the patchy fabric of stand ages found on natural landscapes. Over time the decaying structural legacies of fire combine with the influences of succession, growth and structural development to produce a sequence of seral stages, each serving as habitat for a different suite of species. By changing the landscape, fire also alters the probability of future disturbance.

Vegetation in Seven Sisters, including the CWHws2, ICHmc1 and MHmm2 biogeoclimatic subzones, reflects the influence of a coastal climate. Fires occur infrequently and usually do not become large: average fire return interval ranges from 150-350 yr., 150-250 yr. and 350-400 yr. and average fire size ranges from 50-500 hectares, 150-500 hectares and 50-150 hectares for the CWH, ICH and MH zones

<sup>21</sup> BC Parks. 1997. BC Parks Conservation Management Part 1: Conservation Program Policies. BC Parks, Victoria, BC. respectively<sup>22</sup>. The CWHws2 and the ICHmc1 subzones are characterised by infrequent stand-initiating events and the MHmm2 by rare stand-initiating events<sup>23</sup>.



Forest succession in Oliver Creek Drainage

In natural landscapes, old forests would be expected to cover about 30% of the CWHws2 and ICHmc1 subzones and about 50% of the MHmm2 subzone (Table 1)<sup>24</sup>. Similarly, mature forest would be expected to cover from 60% to 70% of the land. In the Seven Sisters park, disturbances (likely anthropogenic) over the last century or so have shifted the landscape towards younger forest (Table 1). Currently the seral stage distribution in some subzones of the Seven Sisters park does not even meet the seral stage recommendations for managed forest<sup>25</sup>. It is, however, possible that burning to improve berry production has maintained young forest over large areas for centuries.

Table 1. Expected age class distribution in natural landscape by subzone and the actual percentage of each age class in Seven Sisters.

Subzone <sup>a</sup>	Expected Young (%) <sup>b</sup>	Expected Mature + Old (%)c	Expected Old (%) <sup>d</sup>
CWHws2	18	68	29
ICHmc1	18	61	29
MHmm2	11	72	49

<sup>&</sup>lt;sup>22</sup> John Parminter, Research Branch.

<sup>23</sup> Province of BC (1995) BC Forest Practices Code. Biodiversity Guidebook.

<sup>&</sup>lt;sup>24</sup> Province of BC (1995) BC Forest Practices Code. Biodiversity Guidebook. Calculated using equation in Appendix 2.

<sup>&</sup>lt;sup>25</sup> Province of BC (1995) BC Forest Practices Code. Biodiversity Guidebook.

	Current Young (%)	Current Mature + Old (%)	Current Old (%)
CWHws2	19	40	22
ICHmc1	12	30	6
MHmm2	5	79	53

a Note totals do not equal 100% as other age classes (40-80 years)

Important values for consideration in fire management planning include:

- Natural seral stage distribution; currently Seven Sisters park contains less mature and old forest than expected in natural landscapes;
- Natural processes (including fire);
- The cultural importance of old growth;
- Preference for old growth (or riparian old growth) by species of concern (goshawk, fisher, tailed frog);
- Rare and endangered plant associations (eight associations in CWHws2 and ICHmc1; MHmm2 unsurveyed);
- Preference for young mature and mature forest by pine mushrooms;
- Recreational and tenured facilities (e.g. trails, facilities at Watson Lake, trappers' cabins);
- Value of burned areas for berry production.

### **Objectives and Strategies**

To identify the role of fire in ecosystem maintenance and to protect important values and resources from loss to wildfire.

- Develop a fire management plan consistent with the Seven Sisters Park and Protected Area Management Plan. The plan will determine where fires will be allowed to take their natural course, where natural fires will be suppressed and the role of prescribed fire.
- Follow Memorandum of Understanding on Fire Management between BC Ministry of Forests and BC Parks that requires the development of a pre-attack plan for the park.
- Until a fire management plan is prepared, follow the pre-attack plan developed by BC Parks and submitted to Northwest Fire Centre. The pre-attack plan will include an initial list of values at risk for which fires will be suppressed. It will involve an initial assessment with Environmental Stewardship Division and the appropriate personnel from affected forest districts (Kispiox, Bulkley, and/or Kalum) and determination of appropriate action.
- Use "light-hand-on-the-land" fire fighting techniques (e.g. use wheeled or tracked vehicles only on existing roads; do not create new access trails or helicopter pads for fire control without approval of Environmental Stewardship Division; do not use fire retarding foam without approval of Environmental Stewardship Division).

b < 40 years old

c > 80 years old in CWH; > 100 years old in ICH; > 120 years old in MH

 $<sup>^{</sup>d} > 250 \text{ years old}$ 

To protect public safety and park facilities.

 Map areas with high public use and value (including entire Natural Environment and Intensive Recreation zones). Modify map as patterns of use evolve in the park. Consider a more active role for fire suppression in these control areas.

To provide information about the role of fire in ecosystem maintenance.

• Provide information to public and staff about the natural role of fire in parks and about fire danger and campfire safety. Include information in Seven Sisters brochure (see Communications Section, p. 73).

#### **Issue – Seral Stage Distribution**

Currently, Seven Sisters contains less mature and old forest in the CWH and ICH than is typically found in natural landscapes, likely because of anthropogenic disturbances over the last century. Fire control will lead to the quickest return to a natural landscape pattern, but will restrict natural processes. The ecological importance of natural structure relative to natural processes is largely unknown and likely depends on the scale and type of ecosystem considered.

## **Objectives and Strategies**

To promote natural seral stage distribution.

- Consider, as part of the fire management plan, controlling fire until the landscape approaches a natural seral stage distribution.
- Consider, as part of the fire management plan, allowing some fires to burn in suitable areas and proper seasons.

## Issue – Rare Ecosystems and Habitats

Old growth forest in the Seven Sisters park has several associated values. The park has the potential to support eight rare and endangered plant associations in the CWHws2 and ICHmc1 as forests age <sup>26</sup>. In addition, of the six listed vertebrate species found in Seven Sisters, three (goshawk, fisher, and tailed frog) show a preference for a particular seral stage - old growth. Finally, old-growth forest holds important cultural values for Git xsan and non-aboriginal people<sup>27</sup>. In contrast, pine mushrooms prefer young mature and mature seral stages. Environmental Stewardship Division policy provides clear direction about the need to protect the habitat of species at risk.

## **Objectives and Strategies**

To promote age classes that support rare habitats and ecosystems.

• Consider, as part of the fire management plan, controlling fire in areas with rare and endangered ecosystems (see Vegetation Section, p. 37 for list of ecosystems) to allow for forest community succession.

<sup>&</sup>lt;sup>26</sup> McLennan D, Veenstra V (2000) Ecosystem mapping of Seven Sisters Provincial Park. Report to BC Parks, Skeena District.

<sup>&</sup>lt;sup>27</sup> Seven Sisters Planning Group (1997) Land Use Recommendations for the Seven Sisters Planning Area. Report to Prince Rupert Inter-agency Management Committee.

- Consider, as part of the fire management plan, controlling fire in areas with high habitat capability for listed species.
- Identify rare and endangered ecosystems and listed species in the fire management plan.

#### Issue - Prescribed Burning

Gitxsan people have traditionally burned areas around the Seven Sisters park to improve berry productivity. Environmental Stewardship Division policypromotes reliance on natural ecosystem processes, but also respects aboriginal peoples' traditional harvesting and cultural activities. Burning for berry production will likely cover tens or hundreds of hectares of young forest and will not greatly alter the natural disturbance regime, however some berry areas may coincide with habitat that has the potential to provide habitat for endangered or threatened species.

The Gitxsan First Nation and the Ministry of Forests are developing guidelines for prescribed burning.

#### **Objectives and Strategies**

To consider Gitxsan prescribed burning to enhance berry production in the fire management plan.

• Ensure that the fire management plan addresses Gitxsan interests in prescribed burning along with other park values, such as habitat for rare species.

If burns are adopted in the fire management plan, identify requirements for collaboration with Ministry of Forests Protection Program, adequate training and the monitoring and control of invasive plants in burned areas.

## Wildlife

The Seven Sisters park provides habitat for ungulates, including mule deer, moose and a resident population of mountain goats; carnivores including wolves, coyotes, grizzly and black bears, fisher, marten and wolverines; and numerous small mammals. Grizzly bears, fishers and wolverines are blue-listed species. The gentle terrain at the height of land from Mulwain Creek is likely an important movement corridor for wildlife moving between watersheds.

Of mammals, only mountain goats have been surveyed in the area. A single survey conducted in 1989 counted 256 goats (a minimum estimate) within a larger area that encompassed the park. A March 2002 distribution census noted 82 goats within the park. The Seven Sisters contains some of British Columbia's highest value goat habitat, typical of the Nass Mountains Ecosection. Although the mountain goat population is not at risk, the Seven Sisters Planning Group identified mountain goats as a species of concern.

Mountain goat winter habitat suitability mapping, based on the following aspects of mountain goat biology, has been completed for the Kispiox Forest District. Mountain goats use steep (45 - 80 degrees) cliff habitat ("escape terrain") to escape from predators.

In the Kispiox District, they tend to prefer southerly aspects, perhaps because of lower snow accumulation, denser texture snow pack or greater vegetative productivity. Mountain goats winter below tree line (below about 1,400 metres). They eat herbs and shrubs found within 500 metres (preferably within 200 metres) of escape terrain. Productive forage areas include old forest (with high snow interception and canopy gaps) and open areas (meadows, brushy areas and regenerating forest less than 20 years). Young forests (between 20 and 120 years old) have low food values and/or deep snow, and are used less.

Mountain goat populations are sensitive to increased access (leading to increased hunting pressure), to habitat fragmentation (particularly in travel corridors) and to noise disturbance. Seven Sisters mountain goats have been hunted by Gitxsan House members and Tsimshian people; a number of families still rely on this meat for sustenance. In addition, British Columbia residents have taken an average of one or two adult mountain goats (maximum of four in 1999) from the Seven Sisters each year over the last decade, in a limited entry hunt. There will be no new roads built into the Seven Sisters park; hence hunting pressure should not increase. Mountain goats are also sensitive to noise disturbance (see Issue, below).

Although moose travel through much of the park in summer, including high elevation meadows, in winter, they remain below 1,000 metres. They rely on shrubs (preferably willow and red osier dogwood) for winter forage, and hence prefer deciduous forest, forest under 20 years old, brush and swampy areas. They use forests in close proximity to food for cover. In the Seven Sisters, good winter moose habitat exists in the big burned areas containing deciduous trees. The habitat section is currently mapping moose habitat suitability in the Kispiox Forest District, including the Seven Sisters park.

Mule deer habitat within the Seven Sisters park has not been mapped recently. However, previous smaller-scale mapping exercises defined the low elevation 60 - 100-year-old forest between Oliver Creek and Watson Lake as important deer winter range. Historically, caribou passed through the Seven Sisters area. Local residents recall seeing caribou and finding sign, although none have been seen for decades. Habitat suitability has not been examined, given the extirpation of caribou from the area. The closest herd, of about 20 individuals, lives in the Telkwa Mountains. Caribou could potentially have moved between the Seven Sisters and the Telkwa Mountains through the Mulwain Creek drainage. It is unlikely that caribou will return to the Seven Sisters area due to small population density and high road density.

Wolverines are little-known predators living and suspected to be breeding in Seven Sisters park. The park has too few large mammals to be prime wolverine habitat (wolverines depend on carrion from large mammal kills for overwinter food)<sup>28</sup>. Wolverine home ranges are extensive - about several hundred square kilometres; likely only two breeding females live in the park. Wolverines are particularly sensitive to disturbance while denning (see Issue, below).

Grizzly and black bears roam over most of the park. Moderate ungulate populations and lack of major salmon populations mean that the Seven Sisters provides adequate, but not

<sup>&</sup>lt;sup>28</sup> Don Reid, BC Environment, personal communication.

exceptional bear habitat. The habitat section is currently mapping grizzly bear habitat suitability in the Kispiox Forest District, including the Seven Sisters park.

The status of fishers within the Seven Sisters park is unknown. The park is close to the western extent of fisher distribution (defined by consistent prey base of snowshoe hares and grouse). Fishers use stands of big cottonwoods for natal dens. No surveys have looked at fisher habitat suitability.

The park supports high marten populations.

The diversity of ecosystems suggests that Seven Sisters is also home to a diversity of birds. High elevation wetlands in the headwaters of Price and Oliver creeks may provide important habitat for migratory waterfowl, but suitability has not been surveyed. In 1996, a northern goshawk survey found no nests within the park. In the region, goshawks nest in ICH forest over 140 years old. In the Seven Sisters, most ICH forest is between 60 and 140 years. Hence, habitat capability (i.e. potential) may be high, although current suitability is low.

Tailed frogs (blue-listed) have not been surveyed within Seven Sisters park, but have been found across the Skeena River from Oliver Creek. Tailed frogs live in steep, fast-flowing, shaded, spring-fed streams. Tadpoles graze on algae, and are hence vulnerable to stream sedimentation. Although the large creeks within the park are fed by glaciers and hence contain too much sediment to be good habitat, small tributaries may be suitable.

#### **Objectives and Strategies**

To conserve natural populations of wildlife species.

To conserve species and habitats at risk.

To increase knowledge, understanding and management capabilities relating to wildlife, habitat and effects of recreation.

*To incorporate traditional ecological knowledge when appropriate.* 

To consider providing opportunities for viewing and interpretation of wildlife species that will not be negatively affected.

To provide regulated hunting opportunities for specified species that support sustainable populations.

- Involve First Nations in surveys and inventories, when practical.
- Work, where practical, with the Fish and Wildlife Science and Allocation Section, Ecosystems Section, other partners, agencies and as required seek funding to:
  - > Conduct inventories of possible fisher denning habitat;
  - Conduct inventories of special habitat features (e.g. mineral licks);
  - > Survey streams for tailed frogs;
  - ➤ Inventory, census or monitor wildlife populations and habitat as concern or opportunities arise;

- ➤ Manage limited entry hunts on mountain goats and grizzly bears; share information on mountain goat and grizzly bear sightings.
- Minimise disturbance to mountain goats and wolverines (see Objectives and Strategies below)
- Minimise sediment addition to creeks during park operations and trail construction. Design creek crossings to minimise sedimentation (e.g. install bridges). Pay particular attention to extremely small, non-glacial headwater streams over bedrock or cobble (i.e. potential tailed frog habitat).
- Share information with First Nations' representatives and the Gitxsan Rangers Program<sup>29</sup> to monitor wildlife, particularly mountain goat, populations.

#### **Issue – Mountain Goat Sensitivity to Disturbance**

Mountain goats are particularly sensitive to noise disturbance, likely because rock falls are a leading cause of death. Studies in Alberta have shown that mountain goats respond to helicopters up to 2 kilometres away. Disturbed mountain goats remain alert, do not forage, and may run, splintering herds<sup>30</sup>. Mountain goats appear more sensitive to helicopter traffic than other open-terrain ungulates, responding more strongly, and to more distant disturbance, than caribou, musk ox or bighorn sheep. Studies recommend that helicopters remain  $\geq 2$  kilometres away from mountain goat habitat.

Inventory data from the Fish and Wildlife Science and Allocation Section, Kootenay Region, suggests that areas in the Purcell Mountains with high levels of heli-hiking and heli-skiing have considerably lower mountain goat populations than expected <sup>31</sup>. Similar areas with less human disturbance have relatively higher populations. Open ridges provide suitable helicopter landing sites for heli-hiking and heli-skiing operations. These ridges are also used by mountain goats as travel corridors. Helicopter landings can fragment travel corridors and threaten mountain goat populations <sup>32</sup>. Mountain goats are relatively insensitive to hikers or skiers provided that the mountain goats are above them, although one study reported that mountain goats in hunted populations avoided suitable habitat in areas of intense hiker use <sup>33</sup>.

Currently, no heli-skiing and limited heli-hiking businesses operate in Seven Sisters park. Summer motorised use within the park is limited to two areas. The first area includes the open portion of the Meanskinisht Logging Road (see Access Management Section, p. 69) and does not conflict with mountain goat habitat. The second area is along the Coyote

<sup>32</sup> Lemke SL (1999) Cayoosh Range Mountain Goat Study. Report to BC Environment, Kamloops and Ainsworth Lumber, Savona.

<sup>&</sup>lt;sup>29</sup> The Git <u>x</u>san Rangers Program has primarily worked with the Department of Fisheries and Oceans to manage fisheries values. Gitxsan representatives, however, see a broader monitoring role for Rangers, acting as the eyes and ears for House chiefs (Art Loring, personal communication).

<sup>&</sup>lt;sup>30</sup> Côté S (1996) Mountain goat responses to helicopter disturbance. Wildlife Society Bulletin 24:681-685; Lemke SL (1999) Cayoosh Range Mountain Goat Study. Report to BC Environment, Kamloops and Ainsworth Lumber, Savona.

<sup>&</sup>lt;sup>31</sup> Bob Forbes, BC Environment, personal communication

<sup>&</sup>lt;sup>33</sup> Benzon TA, Rice LA (1987) Rocky mountain goat population status in the Black Hills, South Dakota. Project W75R28, South Dakota Dept of Game Fish and Parks.

Creek Trail where the exact motorised boundaries will be determined and will consider mountain goat impacts. An alpine bowl and access route is designated for snowmobile use (see Snowmobile Section, p. 63). This area overlaps with one small, isolated patch of moderate mountain goat habitat suitability, but otherwise does not conflict with mountain goat habitat. Backcountry hiking and skiing levels are low at present, but may increase as the park attracts more visitors.

#### **Objectives and Strategies**

To minimise displacement of mountain goats from preferred habitat.

- Designate summer helicopter landing sites in Seven Sisters park to allow backcountry access. As part of this strategy:
  - ➤ Initially designate two locations for helicopter access;
  - ➤ Prohibit helicopter landings elsewhere in Seven Sisters park except for emergency and expressed management purposes
  - ➤ Plan any landings to avoid high suitability mountain goat habitat and to avoid areas of mountain goat use during the sensitive kidding and early rearing period (May July).
- Request voluntary height restrictions from Transport Canada within 2 kilometres of
  mountain goat habitat. Exceptions to the 2 kilometre restrictions are allowed for
  expressed management purposes (e.g. mountain goat inventory). Designated flight
  lines will be considered for access to heli-hiking landing sites and specified within
  park use permits.
- If motorised activities are negatively affecting mountain goat behaviour, take steps to mitigate or eliminate offending activities. Use best management practices (e.g. consideration to reduce and or eliminate motorised activities within 2 kilometres of moderate and high suitability mountain goat habitat).
- Plan hiking/skiing trails to avoid moderate and high value mountain goat habitat, but to provide mountain goat viewing opportunities. In particular, avoid developing trails above escape terrain.
- Consider offering mountain goat awareness training (similar to that offered for Babine Mountains Park) to members of the Skeena Valley Snowmobile Association and other snowmobile organisations. Discuss any concerns with local snowmobile organisations.

To monitor the mountain goat population

- Work with volunteers and/or local community groups to monitor mountain goat populations. Develop a monitoring and recording protocol with observations summarised.
- Inventory mountain goat population at appropriate intervals.

#### Issue – Wolverine Sensitivity to Disturbance during Denning

Female wolverines den in the subalpine from February to April and are extremely sensitive to disturbance. Every time biologists have approached to within 200 metres of a den, the female has abandoned the den and moved, likely with survival costs to young and energetic costs to the mother<sup>34</sup>. Denning habitat is extremely similar to areas used by heli-skiers<sup>35</sup>. Impacts of disturbance by motorised recreation are unknown, but may be high. Present information is insufficient to be able to locate dens or good den locations.

Wolverines share snowmobile trails with low use levels as evidenced by tracks along the Oliver Creek Trail in winter<sup>36</sup>. The present low levels of winter recreational use (nonmotorised except for the designated snowmobile area) likely have minimal impacts on wolverines. Given the high backcountry recreation potential, and the relatively small size of the park (fitting two wolverine dens at most) it would be impractical to prohibit all recreation in the subalpine during the denning period. High levels of winter recreational use, however, particularly motorised activities, has the potential to displace wolverines from the park.

#### **Objectives and Strategies**

To minimise disturbance to wolverine denning habitat while allowing for moderate levels of backcountry recreation.

- Work with the other sections within the Ministry of Water, Land and Air Protection to investigate high suitability wolverine denning habitat as knowledge increases.
- Post information signs to warn people from approaching wolverine dens. Temporarily close trails or routes that run nearby known den sites.
- Prohibit aircraft landing in high suitability wolverine denning habitat.
- Allow snowmobiling only in designated area.
- Work with park visitors to record wolverine sightings and signs. Maintain record of sightings.

## Fish

Salmonids, including juvenile steelhead, use Price, Boulder, Whiskey, Coyote, Hells Bells and Oliver creeks at some time during the year. A steelhead tagged in the Copper River was recaptured in Oliver Creek. The creeks within the Seven Sisters park are not exceptionally productive because of their high gradient. Bull trout (blue-listed) have not been inventoried, but are likely present, living in cold streams with high gradients.

Watson Lake has been stocked biannually with juvenile rainbow trout (3,000 in 1995 and

<sup>&</sup>lt;sup>34</sup> Don Reid, BC Environment, personal communication.

<sup>&</sup>lt;sup>35</sup> Olliff T, Legg K, Kaeding B (Eds) (1999) Effects of winter recreation on wildlife of the Greater Yellowstone Area: a literature review and assessment. Report to the Greater Yellowstone Coordinating Committee. Yellowstone National Park.

36 Len Vanderstar, Habitat Section, personal communication.

1997, 1,000 in 1999). See Angling Section (p. 59) for discussion of stocking. One other lake has had the presence of cutthroat trout confirmed through sampling. No further inventories exist. Angling pressure in the creeks is extremely low. Many people fish the Skeena River at confluences, but few fish the creeks themselves.

The Skeena River itself is one of the world's best systems for salmonids. The small pieces of park on the Skeena are unlikely to impact the river or its productivity; similarly, activities on the Skeena are unlikely to impact the values of the rest of the park.

Because the creeks flow from glaciers within the Seven Sisters, no concerns exist about direct impacts of development outside the area on downstream habitat. Highway 16, however, running for the most part between the Skeena River and the Seven Sisters park (and through the park in a few small sections) may impact fish travelling upstream from the Skeena into creeks.

#### **Objectives and Strategies**

To maintain the current natural diversity and productivity of fish species.

- Minimise sediment addition to creeks during park operations and trail construction. Design creek crossings to minimise sedimentation.
- Manage activities to protect indigenous cutthroat trout and associated habitat.
- Do not introduce fish into lakes other than Watson Lake.

To monitor fish populations.

• Work with the Fish and Wildlife Recreation and Allocation Branch of the Ministry of Water, Land and Air Protection and First Nations, as appropriate, to inventory and monitor fish populations.

# Visual Features

The spectacular natural scenery of the Seven Sisters is one of its most important assets. In a hiking guidebook to trails in west-central British Columbia, the Seven Sisters are described as "without equal in the whole of west-central British Columbia... more beautiful, more impressive, more precipitous and in a sense more aloof than any other range in the area"<sup>37</sup>. The jagged east-west chain of peaks rise more than 2,500 metres, capping a vast icefield. Views of the peaks exist from Highway 16, Cedarvale backroad, Sedan Creek Forest Recreation Site, Kitwanga Mountain Park, VIA Rail Line and viewpoints within the park.

Natural scenery is also important to people travelling through the backcountry. Forest harvesting outside the park will be visible from some locations. The visibility of timber harvesting will be limited by the implementation of visual quality objectives from viewpoints on Highway 16<sup>38</sup>. Special attention will also be paid to viewscapes in

Blix E (1989) Trails to Timberline. Fjelltur Books, BC.
 Kalum LRMP.

Mulwain and Red Canyon watersheds in the Bulkley Forest District<sup>39</sup>. In the Flint Creek and Boulder Creek General Resource Development Zones, the Kispiox Forest District is expected to complete a visual landscape analysis and design.

#### **Objectives and Strategies**

To minimise unnatural changes to the scenery of the Seven Sisters.

- Work with Kispiox, Bulkley and Kalum forest districts and forestry companies to minimise the visual impacts of harvesting that occurs outside the park.
- Plan facilities to minimise impacts on natural scenery.

# **Cultural Heritage Values**

The Seven Sisters has provided physical, cultural and spiritual sustenance to people for millennia. The Gitxsan assert that ties to the land are at the base of the Gitxsan culture. Perhaps because of the dependence on wood, historical sites are known from stories rather than from archaeological evidence, although some cultural infrastructure (e.g. trails, settlement sites, and modified trees) remains. No inventory exists of cultural sites in the Seven Sisters. The frontcountry contains culturally modified cedars (most have been logged). Some trails (e.g. Cedarvale Trail) were originally traditional trapping, hunting and gathering trails. An old village site was located at the bottom of Coyote Creek. Some sites are still used for hunting and gathering berries and other plants. Gitxsan people have records of sites used for ceremonial and sacred purposes and a burial site (locations undisclosed). People hold traditional fishing sites on the Skeena River. According to the Gitxsan, House Chiefs are responsible for managing their land for the long-term benefit of House members. The Gitxsan see the ability for House members to benefit from any development in the Seven Sisters as an important cultural value.

## **Objectives and Strategies**

To ensure that First Nations' cultural sites are protected and managed in accordance with Gitxsan and Tsimshian values and interests.

- Work with Gitxsan and Tsimshian representatives to inventory sites that are historic to the First Nations. Ensure the First Nations are part of the process of documenting information. Jointly seek financial support from potential funding sources.
- Facilitate First Nations access to information on any employment and economic opportunities within the park
- Do not advertise the Cedarvale Trail for recreational use.
- Work with the Gitxsan and Tsimshian representatives to seek funding for and prepare a cultural study for the park. The study will describe cultural information and identify demand for cultural infrastructure, including signs, interpretative buildings, etc. within the park.

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<sup>&</sup>lt;sup>39</sup> Bulkley LRMP.

### **Recreational Features**

The Seven Sisters contains important recreational features, including mountains, forested and non-forested ecosystems and lakes. The feature most needing conservation, however, is less concrete: the backcountry provides opportunities for communion with nature, learning, solitude, personal challenge and therapeutic experiences. People value areas where they can enjoy natural sounds and sights, unmodified by contemporary humans. As resource development reaches throughout the province, these areas become rare and more valuable.

Backcountry values in the Seven Sisters are threatened by two factors. Firstly, as resource development continues around the park, access to the backcountry will be easier, leading to increased use and potential desire for motorised use. Secondly, as people look for shrinking unroaded backcountry areas, more visitors will travel to the Seven Sisters in search of solitude. Both factors will lead to pressure on the backcountry values of the Seven Sisters park. At current levels of use, people usually only meet other parties in the backcountry on holiday weekends.

#### **Objectives and Strategies**

To maintain the backcountry values of the Seven Sisters park.

- Monitor levels of backcountry use.
- As levels rise above an acceptable limit, manage visitor numbers to maintain backcountry values for visitors. Consider requiring visitor registration.
- Work with Ministry of Forests to manage access into the park through provincial forest land (see Backcountry Values Section, p.58).

# **Management of Outdoor Recreation Opportunities**

## Introduction

This section of the management plan describes the strategies for managing outdoor recreation and access in Seven Sisters park. It describes the various recreational activities enjoyed by people visiting the Seven Sisters and lists objectives that balance use of the Seven Sisters with protecting values for future generations.

Environmental Stewardship Division identifies four "outdoor recreation goals" for its provincial park system: 1) providing a range of regional recreation opportunities; 2) providing outstanding backcountry recreation opportunities; 3) providing a tourist destination for outdoor recreation; and 4) providing recreation opportunities along a major travel corridor. The Seven Sisters park contributes to all four goals, with easily accessed frontcountry recreation opportunities starting at Highway 16 and exceptional backcountry recreation opportunities close to large population centres.

Currently no developed campground facilities exist within the park. One private campground with electricity is located within 3 kilometres on Highway 16, and two provincial campgrounds are within a 30-minute drive each way on Highway 16. Historically, people have camped at three small lakes along the Watson Lake Trail, previously a BC Forest Service Recreation Site, and at a small lake along the Cedarvale Trail.

The management of visitor services must address current needs and also consider how to manage for changing visitor patterns. In British Columbia in1997, ecotourism accounted for \$892 million in revenue and employed 13,000 people (an 11% increase in employment from 1996) in the province. Globally, the World Tourism Organisation estimates that spending on ecotourism is increasing by 20% a year. These trends indicate that "wilderness" settings such as found in the Seven Sisters Provincial Park and Protected Area will be the focal point for more and more visitors, both from within and outside British Columbia. Upper Skeena residents wish to further develop tourism, and have established a small, but growing, cultural ecotourism sector <sup>40</sup>.

# **Outdoor Recreation Opportunities and Facilities**

# **General Objectives and Strategies**

To allow appropriate recreational activities while protecting natural, cultural and recreational values of the Seven Sisters park.

<sup>&</sup>lt;sup>40</sup> A-D Communications (1998) Action 2000: A journey into the human and economic potential of the Upper Skeena. A Forest Sector Economic Action Plan.

- Allow non-motorised, assisted recreational activities (e.g. horseback riding, mountain biking) on designated trails in the Natural Environment Zone. Allow winter motorised use in the designated area. Allow summer motorised use on designated, surfaced roads (Meanskinisht Logging Road, Coyote Creek Trail and access to trailheads).
- Incorporate Best Management Practices for all permissible recreational activities.
   Information kiosks, shelters and brochures can be used to educate the public on these practices.
- Monitor levels of use. If significant impacts are evident, consider options to manage numbers including reducing promotion, providing information, hardening resources and regulating use. Involve local residents and recreational users in monitoring and in considering best management options.

To ensure visitor safety.

- Provide information and encourage visitors to obtain park information before venturing into the park.
- Use information shelters at trailheads, provide notices on trail conditions and update as practical.

# Frontcountry Hiking and Skiing

Almost everyone who ventures into the Seven Sisters park will travel along one of the established trails running from Highway 16 up to small lakes, viewpoints and alpine basins as well as to backcountry and mountaineering opportunities. These trails are critically important to peoples' enjoyment of the park. For some, the frontcountry trails are an introduction to further exploration; for others, the trails are an end in themselves.

Six trails run from Highway 16 into the Seven Sisters park: Boulder Creek Trail, Whiskey Creek Trail, Cedarvale Trail, Coyote Creek Trail, Watson Lake Trail and Oliver Creek Trail. Coyote Creek Trail is outside the Seven Sisters park (within the Flint Creek General Resource Development Zone), but is used for access; other trails are contained within the park. The Flint Creek Logging Road within the Flint Creek General Resource Development Zone is also used for access and recreation. A rough, muddy trail from the end of the logging road (the Flint Creek Extension) crosses Hells Bells Creek and links with Oliver Creek Trail.

The trails offer a wide variety of experiences. Families with small children and novice hikers can easily reach the scenic lakeside picnic/camping site 1 kilometre along the Watson Lake Trail. The Cedarvale Trail offers a half-day trip to treeline and mountain goat viewing. Oliver and Boulder Creek Trails provide more challenging hikes to treeline, and access to backcountry routes. Snowmobile users travel to an alpine basin along Flint Creek Road, the Flint Creek Extension and Oliver Creek Trail. Mountaineers use Coyote Creek Trail or the Flint Creek Road and Oliver Creek Trail to reach Weeskinisht Peak. A more detailed description of the various hikes is provided in Appendix III.

Trails have not been maintained consistently in recent years, and several have grown over or become braided. A recent assessment provides detailed descriptions and recommendations for work needed on each trail<sup>41</sup>. Oliver Creek Trail and the Flint Creek Extension (as well as Coyote Creek Trail outside the park) have been used by summer motorised vehicles, and are rutted and eroded in sections.

#### **Objectives and Strategies**

To maintain frontcountry hiking opportunities as an important part of peoples' experience of the Seven Sisters park.

- Control use if necessary to limit impacts to natural, cultural and recreational values (see Vegetation, p. 37 and Cultural and Historical Values, p. 51).
- Clear and upgrade trails to meet Environmental Stewardship Division's standards.
  Review recommendations of recent assessment and upgrade and/or reroute trails as
  appropriate. In general, manage Boulder Creek Trail, Whiskey Creek Trail and
  Cedarvale Trail as hiking trails or wilderness hiking trails, Watson Lake Trail as a
  walking trail (and possibly interpretative trail), Oliver Creek Trail, Coyote Creek
  Trail and the Flint Creek Extension as multi-use trails (see Sections on Horseback
  Riding, p. 61, Mountain Biking, p. 62, Snowmobiling, p. 63).
- Within the Natural Environment Zone, develop minimal facilities (e.g. trails, picnic sites, primitive campsites) as demand, safety and environmental protection require.
- Upgrade facilities at Watson Lake to meet Environmental Stewardship Division's standards for a rustic walk-in camp site.
- Investigate the possibility of linking trails (see Backcountry Hiking Section, below).
- Do not promote Cedarvale Trail on park brochures, maps or web pages (See Cultural Heritage Values).

Facilitate the development of multi-purpose (i.e. hiking, skiing, horseback riding, mountain biking) or interpretative trails based on the Meanskinisht Logging Road and between Boulder and Whiskey creeks respectively. Local communities should be involved in trail development and in the preparation of interpretative material. Follow standard review and impact assessment processes.

# **Backcountry Hiking and Skiing**

Although current use of the backcountry is low, the Seven Sisters park has outstanding potential for backcountry hiking, skiing and backpacking within the Wilderness Recreation Zone. The route to the east of the Seven Sisters peaks, through primitive and semi-primitive wilderness, near to population centres, is unmatched in the region. Backcountry hikers prefer low levels of use to maintain their wilderness experience.

<sup>&</sup>lt;sup>41</sup> Fell B (1997) Seven Sisters Mountains – Trails Assessments and Recommendations. Report to Ministry of Forests.

The weather in the Seven Sisters park is notoriously unpredictable. Backcountry travellers must be adequately prepared to spend unintended nights outside.

Backcountry hikers are interested in creating circular trips by linking existing trails. The local hiking community has several suggestions for appropriate and interesting routes.

#### **Objectives and Strategies**

To provide low intensity, non-motorised backcountry recreation opportunities that are compatible with conservation objectives.

- Control motorized use if necessary to protect natural, cultural and recreational values.
- Motorised use will occur only where specifically designated in the Wilderness Recreation Zone other than for emergency purposes and floatplane use where feasible.
- Prohibit mountain biking or horseback riding off designated trails in the Wilderness Recreation Zone.
- Refer to strategies in Recreational Features, p. 52, Commercial Recreation, p. 68, and Access Management, p. 69

To provide information and minimal rustic facilities to assist people who hike and ski in the backcountry areas of the Seven Sisters.

- Seek partnerships with local communities, other agencies, trusts, etc. to provide funding to upgrade and develop facilities consistent with this management plan.
- Develop minimal facilities (e.g. routes, trails, and primitive campsites) as demand, safety and environmental protection require.
- Maintain trails to appropriate Environmental Stewardship Division's standards.
- Recognise desire for unimproved, unmarked backcountry routes in addition to improved trails.
- Investigate possibility of linking trails to create circular trips (e.g. along the ridge between Boulder Creek Trail and Whiskey Creek Trail; joining Oliver Creek Trail and Boulder Creek Trail with a route around the peaks; improving the route between Oliver Creek Trail and Coyote Creek Trail). Work with local hikers, skiers and community groups to determine best options.
- Encourage no-trace camping in the backcountry.
- Monitor patterns of backcountry use, especially the impacts of unregulated camping
  in backcountry. Encourage park users to report environmental status near campsites.
  When use patterns have been established, and if use increases or environmental
  damage occurs, consider designating backcountry campsite locations. At that time,
  consider providing minimal facilities such as food caches to encourage camping at

designated sites.

• Develop and deliver brochure with trail descriptions and safety and conservation information for visitors (see Communication Section, p. 73).

#### **Issue – Facilities**

Interest exists in developing suitable facilities to accommodate recreation use within Seven Sisters Park. Many people see the provision of structures as important to increasing tourism and commercial structures as a method to diversify the local economic base. Provision of additional structures would also provide an opportunity for an increased park ranger presence. On the other hand, some visitors to the park would prefer no facilities in the backcountry.

Already several trappers' cabins are located in the park. Three registered cabins along the Oliver Creek Trail and headwaters are not available for public use, except under emergency conditions. Many members of the public are unaware that these cabins are private and have expressed an interest in the continued use of these structures and would like Environmental Stewardship Division to upgrade the cabins. Other cabins, in various states of collapse, are reported to exist in remote areas of the park<sup>42</sup>.

Considerable local interest also exists in developing a multi-day trail around the Seven Sisters supported by simple huts to allow recreation experience of the Seven Sisters for families or less able hikers. New facilities would also provide opportunities for local ecotourism endeavours. Mountaineers also support the concept of huts to lighten heavy loads and to provide emergency shelter during inclement weather.

The most popular location for a hut is along the headwaters of one of the tributaries to Oliver Creek, out of the snowmobile area and close to Weeskinisht. Local community groups could provide funds and workers to build huts.

People define "simple huts" in various ways, but generally agree that they should be small and blend well into the landscape. Most people would like the huts to contain a wood-burning stove, space for sleeping (possibly bunks) and space for drying clothes; others would prefer merely an empty shell providing shelter during inclement weather.

## **Objectives and Strategies**

To facilitate development of simple backcountry huts within Seven Sisters park.

- Review options for hut development with local communities and First Nations. Assist acceptable plans only after conducting an assessment under the BC Parks and Protected Areas Branch Impact Assessment Policy.
- Place huts to minimise visual impacts.
- Ensure that options remain to travel through backcountry areas without seeing huts or other facilities.

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<sup>&</sup>lt;sup>42</sup> Peter Caddy, personal communication.

To develop facilities and structures that accommodate appropriate backcountry use levels, allow for an increased parks presence and meet commercial stakeholder needs.

- Prior to any facility development beyond the hut to hut concept all potential structures
  must undergo a review governed by the BC Parks and Protected Areas Branch Impact
  Assessment Policy.
- Future public structures should consider the need to provide alternatives to existing
  use of private trappers cabins, the need for a park ranger presence and the level of
  public demand. Construction of structures to meet public demand should consider the
  need for a park ranger cabin or vice-versa and determine if the structures can be
  combined or constructed separately.
- Facility location should be selected to ensure that options exist for visitors to use the backcountry without having to encounter additional structures, particularly in the area near the headwaters of Big Oliver and Price creeks.
- All facility development should be designed to blend with the natural environment and be of a reasonably high standard of construction.
- Commercial structures should be encouraged to locate outside of the park boundaries if feasible. If a business case requires that facilities be located within the park then applications may be entertained subject to an impact assessment process that includes the elements above. Consideration should also be given to how the proposed project will benefit the park and local communities.

#### **Issue – Protection of Backcountry Values**

Forest management, particularly road development, in Mulwain Creek potentially threatens the backcountry recreation values of the park. Although summer motorised use will be controlled by gates and bridge deactivation, winter motorised use will not be controlled. Potentially, somebody could build a short, illegal, trail leading from the logging road to a series of wetlands, providing easy access to the backcountry. No terrain or vegetative impediments are found between the wetlands and the alpine.

Additionally, the Coast Mountain Crawlers, a local 4 by 4 vehicle organisation has expressed an interest in utilising the Oliver Creek Trail and possibly linking to the Coyote Creek Trail through an upgrade to the alpine trail and hardening of the Oliver Creek Meadows. Based on direction from the Seven Sisters Planning Group and the vision expressed by the majority of participants in the planning process, this will not be an accepted activity in the backcountry during the life of this management plan. The Coyote Creek Trail, however, may provide this opportunity as directed by the Seven Sisters Land and Resource Use Plansubject to future funding and planning by the Ministry of Forests.

# **Objectives and Strategies**

Prohibit all unauthorized motorised use in the backcountry region of the park (See Access Management)

• Work with the Ministry of Forests to prevent motorised use into the park from the

Mulwain drainage or other unauthorized access points.

 Post signs identifying the park boundary location and designating the area as nonmotorised use only.

Monitor motorised use in the backcountry region of the park (Wilderness Recreation Zone)

- Post signs on backcountry skiing routes requesting that people notify the Environmental Stewardship Division of any signs of motorised use.
- Summarise reports of motorised use.

# **Mountaineering**

Mountaineering in the Seven Sisters park is popular among a small but active group of regional residents (from Smithers to Prince Rupert) and their acquaintances. The summits, particularly Weeskinisht, are the usual destination for mountaineers, although people also traverse across glaciers and rocks around the peaks. The first recorded ascent of Weeskinisht summit was in 1941<sup>43</sup>. Most people climb summits in summer, though winter ascents are possible. The mountaineering community views the lengthy access routes and rugged terrain of the Seven Sisters as a challenge rather than a drawback, and usually prepares adequately for the extremes in weather found in the park.

Mountaineers can travel to a ridge leading to the Weeskinisht summit accessed from the Flint Creek Road, by the Oliver Creek Trail or by the Coyote Creek Trail. Local mountaineers consider the present access to this route adequate, but are in favour of a backcountry hut along the headwaters of Oliver Creek. People also use the Cedarvale Trail to gain access to ice climbing and ski mountaineering opportunities and to traverse the glacier along the northern flank of the Seven Sisters.

# **Objectives and Strategies**

To provide opportunities for mountaineering that are compatible with conservation objectives.

• Refer to strategies under Backcountry Hiking, p. 55, and Skiing and Commercial Recreation, p. 68.

# **Angling**

Angling potential is low throughout most of the park (see Fish, p. 49). Since 1988, Watson Lake has been stocked every other year with juvenile rainbow trout. The goal of the stocking program is to provide easily accessible opportunities for family fishing.

The outlet of Watson Lake is a steep gradient creek, and trout are unlikely to travel down to the Skeena River<sup>44</sup>. Sterile stock, however, would be preferable.

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 <sup>&</sup>lt;sup>43</sup> Carter NM (1942) A first ascent in the Seven Sisters range. Canadian Alpine Journal Volume 28: 88-100.
 <sup>44</sup> Ministry of Water, Land and Air Protection staff.

Neither the biological or recreational success of the stocking program has been assessed. Environmental Stewardship Division should undertake creel surveying and environmental monitoring in consultation with the fisheries section every five years.

#### **Objectives and Strategies**

To maintain angling opportunities in Watson Lake.

To maintain the current natural diversity and productivity of fish species.

- Initially, work in co-operation with the Fish and Wildlife Recreation and Allocation Branch of the Ministry of Water, Land and Air Protection to maintain stocked rainbow trout in Watson Lake.
- Undertake creel surveying and environmental monitoring (e.g. overnight gill netting to assess stock age and size) to determine the success of the program and whether stocking should continue.
- Compile anecdotal information related by park visitors and share information with the Fish, Wildlife Science and Allocation Section.

# Hunting

Hunting is allowed within the Seven Sisters park. Most people hunt for mountain goats. Mountain goat hunting is an important traditional Gitxsan and Tsimshian activity. A number of local First Nations people rely on Seven Sisters mountain goats for meat. In addition, a fall/winter limited entry hunting season exists for mountain goat. The park falls within two Ministry of Water, Land and Air Protection management zones for mountain goats, making up about 25% of each of Management Unit 6-09 zone B and 6-09 zone J. Over the past decade, one or two adult mountain goats have been harvested under the limited entry hunt within the park each year, all by British Columbia residents. Non-residents have harvested no mountain goats in the past decade, in part because the guide-outfitter has not been operating.

Spring and fall limited entry seasons also exist for grizzly bears, but no bears have been harvested within the park over the last 10 years. The park makes up about 5% of Management Unit 6-09 zone B for grizzly bears. Moose and mule deer are hunted during hunting season as set out in annual hunting synopsis and regulations.

# **Objectives and Strategies**

To maintain opportunities for hunting that are compatible with conservation objectives and public safety.

- Recognise hunting as a pre-existing and acceptable activity in the Seven Sisters park.
- Recognize traditional hunting of First Nations people.
- Work with the Fish and Wildlife Recreation and Allocation Branch of the Ministry of Water, Land and Air Protection and consult with First Nations and other users, as appropriate, to regulate hunting activities to ensure healthy animal populations and

public safety.

• Follow established procedures to close areas to hunting if necessary for safety or conservation reasons.

# **Horseback Riding**

Currently, few people ride horses in Seven Sisters park, partly because riders must transport horses to the park via trailer. Local riders use an extensive trail system based on Kitwanga back roads and are unlikely to use the park. Local communities, however, are interested in providing short horseback riding trails to allow opportunities for guided trail rides, increasing economic diversity. Horse riders prefer dry, open trails for safety reasons and to minimise biting insects. Loop trails following old logging roads (e.g. Meanskinisht Logging Road within the park; Flint Creek Road outside the park) offer the best option. Oliver Creek Trail offers excellent potential for horseback riding provided that concerns about damage to sensitive vegetation can be reduced (see Issue, below).

#### **Issue – Minimising Damage to Meadows**

Horses prefer dry trails and walk around muddy spots. This behaviour leads to braided trails. Horseback riding off trails can compact soil and damage vegetation. On or off trails, horses introduce non-native invasive weeds via droppings. The damaged meadows near the Oliver Creek Trail (see Vegetation, p. 37) are particularly susceptible to weed introduction and soil compaction<sup>45</sup>. Parts of the Oliver Creek Trail are hard and suitable for horses, but other sections are muddy year-round. Horses would have to walk around the muddy sections, potentially compacting soil and introducing weeds to the damaged meadows. Presently, few people ride up the Oliver Creek Trail and no obvious damage from horses is evident. If use increases following designation of Oliver Creek Trail as a multi-purpose trail, horseback riding may damage the natural vegetation of the Seven Sisters Park.

## **Objectives and Strategies**

To provide horseback riding opportunities that are compatible with conservation objectives.

- Limit horseback riding to hard-packed, multi-purpose trails (these include Meanskinisht Logging Road and Coyote Creek Trail within the park and Flint Creek Logging Road outside the park; Oliver Creek Trail and the Flint Creek Extension would be suitable after trail hardening and meadow recovery).
- Consider developing and promoting non-motorised, multi-purpose loop trails. Initially, investigate the possibility of using the existing logging road (Meanskinisht Logging Road). Work with the local community to define the best trail location
- Review with local communities options for developing a multi-purpose trail, including interpretative information, based on the Meanskinisht Logging Road. Assist development where required.

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<sup>&</sup>lt;sup>45</sup> Jim Pojar, Ministry of Forests, personal communication.

- Prohibit horseback riding along Oliver Creek Trail unless the meadows have recovered and the trail is properly upgraded and hardened.
- Monitor ecological damage (see Vegetation, p. 37) and user conflicts.
- Work with local horseback riders to determine the best means to reduce damage and conflicts (e.g. education/information, resource hardening, visitor restrictions).

# **Mountain Biking**

Currently, few mountain bikers ride within the Seven Sisters park. Given the rise in popularity of this sport over the past decade, however, demand for mountain biking opportunities will likely increase. Responsible mountain biking on hard, dry, wide trails poses little threat to ecological integrity or to the experience of other visitors. Unregulated, irresponsible or careless mountain biking, however, can compact soil, produce ruts, damage vegetation and create conflict with other visitors <sup>46</sup>. In wet conditions, mountain biking can degrade and widen trails as cyclists avoid soft spots. Fast riding can pose safety hazards to hikers, horseback riders and other cyclists, particularly if visibility is limited by narrow, winding trails.

Multi-purpose trails on existing roads (i.e. Meanskinisht Road, Coyote Creek Trail within the park and Flint Creek Road outside the park) provide safe, benign mountain biking opportunities, but are unlikely to provide sufficiently long, scenic or exciting experiences to attract mountain bikers to the park. Excellent potential for a mountain bike loop involves the Flint Creek Road, Flint Creek Extension and Oliver Creek Trail (a challenging day trip). As noted in the Vegetation and Horseback Riding sections of this management plan, however, portions of the Oliver Creek Trail are muddy and meadows around the trails have already suffered damage from recreational use.

Mountain biking and horseback riding are compatible activities, particularly on one-way, loop trails with good visibility. Local community groups are interested in developing short multi-purpose loop trails to attract tourism.

# **Objectives and Strategies**

To provide safe opportunities for mountain biking that are compatible with conservation and backcountry recreation objectives.

- Limit mountain biking to hard-packed, multi-purpose trails (these would include Meanskinisht Logging Road, Coyote Creek Trail (within the park) and Flint Creek Logging Road outside the park; Oliver Creek Trail and the Flint Creek Extension would be suitable after trail hardening and meadow recovery).
- Consider developing and promoting non-motorised, multi-purpose loop trails. Initially, investigate possibility of using existing logging road (Meanskinisht Logging Road). Work with community to locate trail optimally.

<sup>46</sup> Chavez DJ (1996) Mountain biking: issues and actions for USDA Forest Service managers. USDA Forest Service research paper PSW-RP-226.

- Review with local communities options for developing a multi-purpose trail, including interpretative information, based on the Meanskinisht Logging Road. Assist development as required.
- Prohibit mountain biking along Oliver Creek Meadows unless the meadows have recovered and the trail is properly upgraded. Monitor success of the closure and work with local mountain biking groups to ensure compliance. Close the Oliver Creek Trail if mountain bikes continue to use the meadows.
- Monitor ecological damage and user conflicts.
- Work with local mountain bikers to encourage responsible mountain biking and to determine appropriate means to reduce damage and conflicts (e.g. education/information, resource hardening, visitor restrictions).

# **Snowmobiling**

Seven Sisters park attracts snowmobile users from Terrace, Kitwanga and Hazelton. On weekends, about 10 trailers a day are parked at the end of the Flint Creek Road. Snowmobile users travel up the Flint Creek Road, through the Flint Creek Extension to the Oliver Creek Trail, and up the Oliver Creek Trail to a spectacular alpine bowl on the southwest flank of the Seven Sisters. The Seven Sisters is not the prime snowmobiling area for Terrace residents <sup>47</sup>, but is enjoyed for a change of scenery. Conversely, some Kitwanga residents visit the Seven Sisters every weekend throughout the season.



Many studies have documented impacts of snowmobiling on wildlife and on other recreationists<sup>48</sup>. Current relatively moderate levels of use and limited area of activity<sup>49</sup> mean that the Seven Sisters park can adequately accommodate snowmobile users, wildlife and other recreationists. The snowmobile area contains no high suitability mountain goat habitat and only a small,

<sup>&</sup>lt;sup>47</sup> Ranked 6<sup>th</sup> out of 7 areas used by members of the Skeena Valley Snowmobile Association.

<sup>&</sup>lt;sup>48</sup> Olliff T, Legg K, Kaeding B (Eds) (1999) Effects of winter recreation on wildlife of the Greater Yellowstone Area: a literature review and assessment. Report to the Greater Yellowstone Coordinating Committee. Yellowstone National Park.; US National Park Service (2000) Air quality concerns related to snowmobile usage in National Parks.; US National Park Service (2000) Statement of finding: temporary closure of the form Mt. McKinley National Park area of Denali National Park and Preserve to the use of snowmobiles for traditional activities.

<sup>&</sup>lt;sup>49</sup> Area designated matches map provided by Skeena Valley Snowmobile Association showing area used by members.

isolated patch of moderate suitability labitat. The importance of this area to mountain goats is unknown. The well-defined bowl limits impacts to wolverines in other parts of the park. Some skiers may travel along the snowmobile route, but current levels of use have not led to conflict.

Parking is adequate for current levels of use, and trails are in adequate condition. Steep ridges clearly define natural boundaries for the snowmobile bowl.

Snowmobile organisations are willing to work with Environmental Stewardship Division and to report observations of wildlife, trail conditions and inappropriate activities.

#### **Objectives and Strategies**

To allow for winter motorised recreation while ensuring that effects on natural resources and features and conflicts with other users are minimised. This objective must be compatible with conservation and backcountry recreation objectives.

- Designate snowmobile area as the bowl at the headwaters of Oliver Creek and access route to this area (see Map 4). Discuss any arising issues with local snowmobile organisations. Outside the designated area, prohibit use and manage as required.
- Work with local snowmobile users to encourage responsible snowmobiling and to
  determine appropriate means to reduce damage and visitor conflict (e.g.
  education/information, resource hardening, visitor restrictions). Maintain good
  relationship with local snowmobile organisations. Encourage members to report
  observations to Environmental Stewardship Division.
- Manage for current levels of snowmobile use. Do not encourage increased use. Do not enhance trail or parking facility without performing impact assessment.

To monitor snowmobile use.

- Monitor levels of use (number of trailers parked, observations within park), any arising conflicts between visitors and any observed impacts on wildlife.
- Monitor snowmobile use outside of the designated area

# **Nature Study and Research**

The Seven Sisters park has high potential for informal nature study and research. For many visitors, both to the frontcountry and backcountry, opportunities to view and study natural values form an important part of any recreational outing. Any reasonably large tract of land removed from resource extraction activities is useful for baseline ecological research and for comparison with extraction areas. In addition, the high recreational values of the Seven Sisters provide ample opportunities for research into social or cognitive science.

Although currently no interpretative facilities exist, local communities are interested in developing an interpretative trail in the northern section of the park. In the south, the present trail to Watson Lake is well used by families and also provides an excellent opportunity for interpretative information.

#### **Objectives and Strategies**

To encourage ecological and social research in the Seven Sisters park.

• Support proposals for research projects that match the vision and management objectives of the park.

To consider providing facilities and information to encourage nature study.

- Investigate providing interpretative information along the existing Watson Lake Trail.
- Review with local communities options for developing an interpretative trail
  including the small lakes and viewpoint between Boulder Creek and Whiskey Creek.
  Assist interpretative trail development as appropriate. See Special Needs –
  Interpretative Trail, below.

## **Special Needs—Interpretative Trail**

There is considerable local interest in developing a short interpretative trail to a small lake and viewpoint between Whiskey and Boulder creeks. Such a trail would provide 1) opportunities for less active, disabled or older people to enjoy the Seven Sisters park; 2) a location for educational and cultural activities; and, 3) opportunities for local economic development. Also, planning and constructing an interpretative trail would be an excellent way to explore new relationships between Environmental Stewardship Division and local communities. Developing an interpretative trail is the highest priority for neighbouring communities to the north of the park.

#### **Objectives and Strategies**

To consider developing an interpretative trail between Whiskey and Boulder creeks.

- Discuss options and suggestions for the trail with local community groups and members, including Kitwanga Valley Community Association, Gitwangak Education Society and Upper Skeena Tourism Association.
- Ensure that Environmental Stewardship Division has support from appropriate First Nations representatives prior to preparing, releasing or displaying any information relating to First Nations culture or history.

## **Frontcountry Camping**

No developed campgrounds are located within the Seven Sisters park. Economic analysis of British Columbia provincial parks along Highway 16 between Burns Lake and Prince Rupert suggests that campgrounds bear considerable financial costs (deficit of ~\$500/site/year)<sup>50</sup>. It is not felt that a developed campground is necessary now because the private sector provides facilities. A private campground within 3 kilometres of the park is usually full.

Over time, if tourism increases as projected or if the private sector ceases to provide

<sup>&</sup>lt;sup>50</sup> Price K, Daust D (1999) Highway 16 frontcountry parks: values, use, costs and management options. Report to BC Parks, Skeena District.

camping opportunities, demand for a developed campground may increase.

Unofficial undeveloped frontcountry campsites along the Watson Lake Trail and Cedarvale Trail receive moderate use. Watson Lake Trail is extremely popular with families. Campsites within 1 kilometre of the trailhead provide excellent opportunities for people with young children or less able hikers to experience camping in a wilderness setting. The Cedarvale Trail campsite (less than 3 kilometres from the trailhead) is used by mountaineers, mountain goat hunters and family groups. Local Gitxsan people also use this site for educational camps. Mushroom pickers and backcountry visitors also camp near trailheads and along the Meanskinisht Logging Road.

#### **Objectives and Strategies**

To consider developing a frontcountry campground over the mid- to long-term, if sufficient demand exists and if partnered funding can be secured.

- Monitor number of visitors to neighbouring campgrounds at Kleanza Creek and Seeley Lake provincial parks to determine demand.
- If demand is high, study potential impacts of mushroom picking industry, consider suitable sites and conduct community consultation and impact assessments. Site selection should include consideration of Agricultural Land Reserve Guidelines as part of the impact assessment process.
- Work with community groups, other agencies, First Nations, etc., to develop partnered funding for the future campground project.
- Work with local campground(s) to assess the impact of a campground on their business.

To allow camping in the Natural Environment Zone that is compatible with conservation and recreation objectives.

- Designate campsite locations along the Watson Lake Trail.
- Upgrade facilities at Watson Lake to Environmental Stewardship Division standards for rustic campsites.
- Facilitate community initiatives to develop rustic campsites on Cedarvale Trail, if appropriate.
- Monitor camping and the impacts of camping on the natural, cultural and recreational
  values of the park. If park values are degraded, take appropriate site-specific action,
  including reducing promotion, providing education and information, managing visitor
  numbers and prohibiting camping in some areas.

## **Scenic Viewing**

While many visitors will view the Seven Sisters scenery from within the park, others will merely stop to admire the mountains from Highway 16. Currently a single small highway pullout provides a spectacular view, but no facilities, while rest areas with facilities do

not have a view. Scenic pullouts including interpretative information or day-use facilities would attract visitors to stop within the park.

#### **Objectives and Strategies**

To provide opportunities for scenic viewing of the Seven Sisters park.

- Investigate the possibility of developing partnerships to provide a scenic pullout adjacent to Highway 16.
- Consider developing partnerships to provide interpretative information and day-use facilities (see Day-use Area, below).

## **Day-use**

Currently, a pullout on the southeast side of Highway 16 between Price Creek and Boulder Creek (2.5 kilometres before the highway meets the park) provides an excellent view of the Seven Sisters peaks. The pullout, however, is small, with no facilities beyond a garbage container. Within the park, a Ministry of Transportation rest area exists on the northwest side of the highway. The rest area, within one of the pieces of land considered for a future campground, offers pit toilets and picnic tables within a forest setting, but does not have a view of the spectacular scenery for which the park was created. The mouth of Whiskey Creek provides the only view of the peaks from the highway adjacent to the park.

Local residents feel that a well-designed, scenic day-use area would attract highway travellers to stop. Residents are interested in being involved in the development of a day-use area. Community organisations may have access to funding sources.

A day-use area would provide a focal point for park identification and interpretation. Facilities accessible from vehicles would allow disabled visitors to experience part of the park.

Options include investigating the possibilities of providing facilities at the scenic pull-out and/or developing an area between the highway and the Skeena River near Oliver Creek or at one location within the Natural Environment Zone. British Columbia Parks should also work with the Ministry of Transportation to ensure that the existing rest area provides an attractive stopping point. Development should consider the potential for incorporation into a future campground and Agricultural Land Reserve guidelines for development if applicable.

## **Objectives and Strategies**

To consider developing an attractive day-use and interpretative area next to Highway 16 to act as a focal point for the Seven Sisters park.

- Investigate available options as described above and identify if partnerships can be developed.
- Work with local communities and organisations to facilitate development of a day-use area.

## **Commercial Recreation Opportunities**

Direction from the previous Seven Sisters Planning Group in regards to commercial recreation noted that "Commercial recreation use (tourism) should be encouraged where it is consistent with the management objectives of a zone, including objectives for environmental and cultural heritage quality and for non-commercial recreation. Future planning should identify and coordinate the activities of commercial recreation operators and public recreationists so that potential conflicts are ameliorated" <sup>51</sup>. The plan's commercial recreation section also directed commercial recreation towards "high quality low impact, low infrastructure commercial recreation businesses. Private land planning will be encouraged to reflect local goals for the types of appropriate commercial recreation ventures that will be compatible with non-commercial recreation management".

Environmental Stewardship Division plans for and manages commercial recreation uses with the goals of providing opportunities while protecting ecological integrity. Commercial recreation differs from other recreation in terms of how it is managed by Environmental Stewardship Division. To operate in parks, commercial recreation businesses require a Park Use Permit; an authorization under the *Park Act*. Evaluations and impact assessments may also be required in assessing the appropriateness of commercial recreation opportunities.

In terms of effect and presence on the land, commercial recreation is usually similar to independent recreation. Guided groups of park visitors on foot, skis or cycle are much the same as other groups. Public huts and commercial huts in parks have similar effects on the landscape. In consultation leading to the development of this plan, interest was expressed in ensuring that commercial recreation should not significantly displace or limit opportunities or the qualities desired for independent or non-commercial recreation.

Current levels of guided and non-guided recreation are low; consequently, there should be few conflicts between the two groups initially. Over time, however, as trails become developed and advertised, guided and non-guided use may increase substantially. As use increases, it will be necessary to remain aware of potential conflicts and limits to capacity.

## **Objectives and Strategies**

To encourage commercial recreation that is consistent with management plan direction.

- Recreation guiding operations consistent with management plandirection will be considered. Guided opportunities may include:
  - > Hunting

➤ Hiking

> Skiing

> Mountaineering

➤ Nature Study

> Photography

Canoeing (e.g. Watson Lakes)

Cycling (e.g. Coyote Trail, Meanskinisht Rd)

<sup>&</sup>lt;sup>51</sup> Seven Sisters Planning Group (1997). <u>Land Use Recommendations for the Seven Sisters Planning Area</u>. Hazelton (pg. 63).

- ➤ Heli-hiking
- ➤ Angling guiding
- Ground motorised drop-off and access (see Access Management section below)
- ➤ Hut to hut trips (following development)
- Cultural camps/interpretive centres run by First Nations

Location of permanent facilities aside from hut to hut opportunities described in the management plan is encouraged outside of the park and protected area. If the business case requires permanent facility development within the park, it should be consistent with management plan direction (see Issue - Facilities). The location of potential facilities must consider other relevant uses and values. Consideration should also be given to how the proposed project will benefit the park and local communities.

Proponents are encouraged to involve local communities and First Nations in commercial opportunities.

To provide appropriate conditions for the development of commercial recreation opportunities:

- Heli-hiking landing sites (initially two sites) will be designated to allow backcountry access. The designated sites will avoid high suitability mountain goat habitat and avoid areas of mountain goat use during the sensitive kidding and early rearing period (May July).
- Guided recreational activities will not have exclusive use of any portion of the park or public facilities. If use levels require, commercial activity may be limited in the future and exclusive commercial use will be granted through a process consistent with Ministry policy. Non-commercial activity will continue to be allowed in all areas.
- If required, commercial operators and Environmental Stewardship Division will work together to examine timing of trips.
- Opportunities for commercial operators to provide assistance in monitoring natural values (e.g. mountain goat sightings) will be considered as part of the permitting process.
- Commercial operators should include a report detailing number of trips and comments on an annual basis.

## **Access Management**

Access issues extend outside the park. Coyote Creek Trail (an old mining road) and Flint Creek Road (a logging road) within the General Resource Development Zone between the park and Highway 16 are popular for summer and winter motorised travel. A "cattrail" (the Flint Creek Extension) extending the Flint Creek Road and joining with Oliver Creek Trail within the park has provided access to the park for both summer and winter motorised activities. ATV and motorcycle use have damaged sensitive wet meadow ecosystems within the park. ATV and motorcycle users reach the meadows primarily

from Flint Creek Road and Oliver Creek Trail. See Vegetation, p. 37, for objectives and strategies designed to prevent further damage.

Forest development in Mulwain Creek will facilitate access to the park from the Smithers area. A concern related to increased access is that the unique backcountry recreation experience of the Seven Sisters park will be altered by winter motorised recreation reaching the park via Mulwain Creek logging roads and cutblocks. See Backcountry Values, p. 58 for objectives and strategies designed to mitigate this concern.

A logging road along an unmaintained portion of the old highway between Coyote Creek and Meanskinisht Creek (the Meanskinisht Logging Road) travels a few kilometres into the park. This road has not been maintained and has deteriorated (see Issue below).

Other access issues include maintaining adequate access to trailheads and providing sufficient parking spaces for recreational use. Parking is adequate for current levels of recreational use. Most parking is undeveloped, consisting of pulling off the side of an old logging road or section of old highway or parking next to a gravel pit off Highway 16. The only areas requiring expanded parking in the short-term are those where management activities will close roads for conservation purposes. Use of the park during mushroom harvesting season far exceeds recreational use for the rest of the year. Providing ample parking for mushroom pickers would take considerable space and development.

Portions of the access roads (old highway) to the Watson Lake Trail and the Cedarvale Trail run through private property. Park boundary signs should minimise potential trespass on to private land.

Air access to the park has been very limited in the past with infrequent access by helicopters. There is likely little feasible access to the park by floatplane or wheeled access due to terrain and small size of lakes.

## **Objectives and Strategies**

To delineate areas within the park as suitable for motorised recreational activities and to work with the Ministry of Forests to delineate motorised areas outside of the park.

- Coyote Creek Trail within and outside of the park is designated for both summer
  motorised and non-motorised use. Environmental Stewardship Division will work
  with local summer motorised users to delineate a suitable corridor along this trail/road
  within the park for motorised use. Motorised use along the designated section will be
  conditional upon motorised users not impacting adjacent resources, monitoring and
  reducing impacts to the mountain goat population and ensuring that access to the
  sensitive Oliver Creek Meadows is restricted.
- Meanskinisht Road is suitable for motorised use until road deactivation occurs.
   Further motorised use along this trail will then be dependent on local community support and funding to allow continued motorised use. One exception is provided for the trapper to continue to access his cabin 3 km inside the park by ATV.
- Outside of the park, Flint Creek Road is open to motorised traffic up to the cat trail which provides access to the park. At the cat trail access the road is gated and only

winter motorised access is allowed beyond this point.

- The designated snowmobiling area, accessed from Flint Creek Road, within the park is open to winter motorised use.
- Access roads to designated trailhead locations remain open
- The remainder of the park is closed to motorised use with the exception of the designated helicopter landing locations.

To provide adequate parking when management activities close or restrict roads.

• Develop parking areas at Meanskinisht Logging Road closure (see Issue below) and at Flint Creek Road access control point.

To provide adequate parking as recreational use increases.

- Maintain appropriate access to trailheads.
- Design sufficient parking at all trailheads as patterns of recreational use develop over time.
- Monitor times and location of overflow parking as a guideline for improving parking.
- Work with Ministry of Transportation and Highways to ensure continuation of adequate parking near the gravel pit at the head of the Oliver Creek Trail.

To provide for limited aircraft access in the park.

- Initially designate two landings for helicopter access. Prohibit helicopter access elsewhere in the park except for emergency and management purposes.
- Recognize that floatplane and wheeled aircraft access is not prohibited but not likely
  feasible except for floatplanes along the Skeena River where such access is permitted
  prior to development of campground facilities.

### Issue - Meanskinisht Logging Road Access Management

The Meanskinisht Logging Road runs for 7 kilometres from Highway 16 into the park. The road was built 15-20 years ago and has deteriorated with time. A road slump currently prevents 4 wheel drive access beyond 5 kilometres. Another road failure within 1 kilometre of the highway intersection is likely to prevent access without further maintenance  $^{52}$ .

The road crosses nine culverts in the first 5 kilometres. The culverts are not deteriorating and should have a lifespan of about another 10 years. All culverts require regular maintenance. Residents downstream are concerned that past forest harvesting and the logging road have increased the sediment in their domestic water supply. An assessment

<sup>&</sup>lt;sup>52</sup> McElhanney Consulting Services Ltd. (2000) Assessment of roads in Seven Sisters Protected Area. Report to BC Parks, Skeena District.

found the culvert at Tomlinson Creek to be too small. In addition, a back-up cross ditch adjacent to the culvert is prone to washing out<sup>53</sup>.

Hikers drive 3 kilometres along the logging road to the Cedarvale Trailhead, just before the road passes over Tomlinson and Meanskinisht creeks. Local residents travel in 4 wheel drive trucks or ATVs for recreation and to view scenery. Mushroom pickers also use the road. The Seven Sisters Planning Group recommends allowing motorised use on surfaced roads, including the Meanskinisht Logging Road.

Road deactivation and watershed restoration beyond the Cedarvale Trailhead would allow passage along the most popular section of the road and protect water supply. Because some of the culverts are extremely deep (more than 3 metres), deactivation would prevent motorised use past the trailhead. Bridges over the creeks, designed for foot and/or ATV and horse use would allow travel along the entire road while protecting water.

Local communities are interested in developing a multi-purpose loop trail based on Meanskinisht Logging Road. Such a trail may not be compatible with motorised use of the road.

### **Objectives and Strategies**

To review and aid community options to develop a multi-purpose trail along the Meanskinisht Logging Road, while maintaining the natural quality and quantity of water in streams used for residential supply.

- Deactivate the road beyond Cedarvale Trailhead and re-establish natural drainage patterns. Inform local residents before acting. Post signs and develop a parking area at the road closure.
- Maintain road for vehicle use up to the Cedarvale Trailhead.
- Review options and suggestions for a multi-purpose trail with local communities and facilitate development as appropriate, ensuring adequate community representation.
- Based on resources being available, construct bridges across creeks to provide foot and horse/ATV access.

To re-establish drainage patterns.

• Maintain road to re-establish natural drainage patterns and prevent further erosion on the section of road leading to the Cedarvale Trail.

<sup>&</sup>lt;sup>53</sup> McElhanney Consulting Services Ltd. (2000) Assessment of roads in Seven Sisters Protected Area. Report to BC Parks, Skeena District.

## **Communications**

### Introduction

Marketing, promotion and interpretation of a park affect the level of use and the type of visitor it attracts. Consequently, information and promotion strategies must be consistent with the objectives of the park. The Seven Sisters park plays important conservation and recreational roles. Because of its location on a major highway, the Seven Sisters park also has the potential to play an important educational role in introducing British Columbia's protected areas.

## **Marketing and Promotion**

Local communities, in general, welcome the opportunities for economic diversification provided by the park. They feel that well-developed, advertised trails, including short interpretative trails should attract visitors to stay nearby instead of merely stopping to admire the view. As use increases, it will be a challenge to manage activities to avoid harming the park's natural, cultural and recreational values. Hence, all promotion and interpretation should be accompanied by information on the park's values and on means of maintaining these values.

The Seven Sisters park has the capacity for a moderate increase in the numbers of visitors both in the frontcountry and backcountry. The backcountry cannot withstand large increases in use without compromising the values people visit the backcountry to experience - solitude, pristine wilderness, communion with nature - and hence should not be promoted actively. Frontcountry areas could support higher numbers, particularly on well-designed interpretative trails. The best form of promotion is through a series of highway signs, scenic highway pullouts or a day-use area with interpretative information (see Day-use, p. 67), a brochure showing trail locations and inclusion in an Environmental Stewardship Division map.

## **Objectives and Strategies**

To ensure that published public information about Seven Sisters is consistent with park vision and roles.

To introduce out-of-province visitors to British Columbia's protected areas.

- Design and post entrance portals at each end of the park and vehicle guide signs at selected trail access points (Boulder Creek Trail, Whiskey Creek Trail, Watson Lake Trail, Oliver Creek Trail, Coyote Creek Trail, Flint Creek Road).
- Develop a day-use area adjacent to Highway 16 as a focus for the park.
- Provide park brochures (see description below) and information at the Gitxsan Treaty Office, BC Tourism Info Centres, Ministry of Forests offices, Environmental Stewardship Division offices, at the scenic pull-out at north end of the park and at rest areas at both ends of the park.

• If capacity is exceeded or unacceptable impacts occur, reconsider brochure and advertisement and promotion strategies.

## **Pre-trip Planning**

Information about the Seven Sisters park can help people plan recreational activities in the park.

### **Objectives and Strategies**

To provide accurate, helpful information about the Seven Sisters park to assist people with planning recreational activities.

To supply information to orient visitors to the Seven Sisters and to supply information about other local recreation and tourism opportunities and provincial parks.

- Prepare brochure (see below).
- Work with local communities, recreational guides and organisations (e.g. Upper Skeena Tourism Association) in providing appropriate trip planning information and in providing regional tourism and outdoor recreation information.

## **Natural and Cultural Heritage Education**

Information about the Seven Sisters park can increase awareness of the natural, cultural and recreational values of the Seven Sisters and promote behaviour that protects these values (particularly important in relationship to the sensitive meadow ecosystems). It can also illustrate the importance of the Seven Sisters to local communities (First Nations and non-aboriginal).

In addition to the interpretative trail proposal by local communities (for an area between Boulder and Whiskey creeks, see Nature Study, p. 64, Special Needs – Interpretative Trail, p. 65), the short Watson Lake Trail passes through a variety of ecosystems and seral stages and would be ideal for a self-guided interpretative trail. Families often camp at the small lakes on the trail; hence it would be an ideal site for educational material relating to the park's conservation values and camping ethics.

## **Objectives and Strategies**

To encourage visitor appreciation and understanding of the natural, cultural and recreational values of the park.

To encourage activities that protect the natural, cultural and recreational values of the park.

To encourage visitor appreciation of the strong ties between local communities and the Seven Sisters Park.

• Prepare an information brochure. Focus on describing how to enjoy and protect the natural, cultural and recreational values of the Seven Sisters park. Provide a map of

the frontcountry trails (except for Cedarvale Trail) with designated trail use. Describe trail ethics (frontcountry and backcountry), no-trace camping practices, safety issues and environmental impacts of human use. Describe the values of riparian systems (see Water, p. 36). Describe the values of the meadow ecosystems, their sensitivity to disturbance, time to recover and means to avoid damage (see Vegetation, p. 37). Describe the role of fire in maintaining ecosystems (see Fire, p. 40). Include information about mountain goats, bears and wolverines.

- Distribute brochure primarily via the web and also initially provide copies to community organisations (i.e. Skeena Valley Snowmobile Association, Gitwangak Education Society, Kitwanga Valley Community Association, Upper Skeena Tourism Association, Terrace Hiking Club) if a sponsor can be located.
- Develop and provide appropriate information and interpretation facilities at trailheads.
- As patterns of use develop and trails are improved or developed, update the brochure.
- Ensure that the official Environmental Stewardship Division' web page for Seven Sisters has the same focus as the brochure.
- Develop interpretative themes for the park that focus on its contributions to the
  protected areas system, its ecosystems (forested and not), its transitional climate,
  mountain goat and other wildlife viewing, protection of vegetation, mountain goats
  and other natural values, Gitxsan and Tsimshian values, traditional ecological
  knowledge, protection of backcountry values, impacts of human use, multi-user ethics
  and safety.
- Work to involve local communities (First Nations and non-aboriginal) in development and presentation of interpretative information to the extent practical. Include local and practical as well as scientific knowledge.
- Provide opportunities for volunteer involvement where possible.
- Provide interpretative signage where appropriate (i.e. at highway pullouts and interpretative trails; see Interpretative Trail, p. 65). Provide safety and information signs at trailheads and wherever needed in the Intensive Recreation and Natural Environment zones.
- Maintain the natural character of the Wilderness RecreationZone by limiting signs to
  cases where they are necessary for visitor safety or for the protection of sensitive
  sites.
- Do not advertise Oliver Creek Trail for mountain biking or horseback riding until meadows have recovered and trail has been hardened.
- Do not promote Cedarvale Trail.

• Maintain and enhance the liaison role between the Park Area Supervisor and First Nations' representatives.

## **Implementation**

The Seven Sisters Park and Protected Area Management Plan forms the basis from which the Environmental Stewardship Division and other agencies can set priorities to meet management objectives. Follow through on strategies is dependent on the availability of financial and staffing capacity of the Environmental Stewardship Division. In addition, implementation of strategies is affected by the management needs of other parks in the Skeena Region and the entire protected areas system.

Timeframe indicates when action is initiated. An asterix (\*) means that the action is ongoing. Numbers after actions list appropriate sections within the management plan.

## Short Term(1 - 5 years)

#### Conservation

- Establish photo points to document changes in meadow vegetation (see Vegetation).
- Develop and initiate wildlife population and habitat monitoring programs (see Wildlife).
- Working with the recreation program, establish two landing sites to facilitate summer heli-hiking (see Issue Mountain Goat Sensitivity to Disturbance).
- Develop and initiate mushroom picking monitoring program (see Land and Resource Tenures).
- Deactivate Meanskinisht Logging Road culverts and restore watersheds (see Access).\*

### **Planning**

- Ensure that access management plans and forest development plans in the vicinity of the park include considerations for the protection of park values (see Land and Resource Tenures) \*
- Maintain a liaison for community groups to assist with stewardship of the Seven Sisters (see Community Relationships).
- Continue discussions with Git <u>x</u>san First Nation and Tsimshian First Nation (see Community Relationships) \*

#### Recreation

- Prohibit summer motorised access to sensitive wet meadows near Oliver Creek (see Vegetation) \*
- Prohibit motorised use of backcountry except for snowmobile use of designated area (see Backcountry Values, Snowmobiling).
- Develop and initiate recreation use and impact monitoring programs (see Land and Resource Tenures, Backcountry Hiking and Skiing, Horseback Riding, Mountain Biking, Snowmobiling, Frontcountry Camping).
- Authorise trapping and guide-outfitting by Park Use Permit (see Land and Resource

- Tenures).
- Authorise recreational guides as appropriate by Park Use Permit (Permit (see Land and Resource Tenures).
- Close Meanskinisht Logging Road and provide parking at closure (see Access).
- Working with the extension program design and provide entrance portals and vehicle guide signs at selected points (see Communication).
- Working with the conservation program, establish two landing sites to facilitate summer heli-hiking (see Issue Mountain Goat Sensitivity to Disturbance).

#### Extension

- Prepare and provide an information brochure (see Communication); do not advertise Cedarvale Trail (see Cultural Heritage); do not advertise Oliver Creek Trail as multiuse until trail has been hardened (see Vegetation, Horseback Riding, Mountain Biking).
- Develop a web page (see Communication).
- Design and provide entrance portals and vehicle guide signs at selected points (see Communication).
- Develop interpretative themes for the park (see Communication).
- Develop and provide basic interpretative signs in the park, working with local communities and First Nations where appropriate (see Community Relationships, Interpretative Trail, Communication).

## Medium Term (5 - 10 years)

#### Conservation

- Continue monitoring programs (see Wildlife).
- Prepare a vegetation management plan (see Vegetation).
- Prepare a fire management plan (see Fire).
- Monitor success of Watson Lake stocking program (see Fish, Angling).
- Work with First Nations to inventory cultural sites (see Cultural Heritage).
- Encourage research projects that match objectives (see Nature Study).

#### Recreation

- Determine capacity or limits of acceptable change for all recreational activities (see Recreation Features, Recreation Opportunities).
- Facilitate plans for backcountry huts (see Backcountry Hiking and Skiing).
- Continue monitoring programs (see Land and Resource Tenures, Backcountry Hiking and Skiing, Horseback Riding, Mountain Biking, Snowmobiling, Frontcountry Camping).
- Clear, upgrade and re-route trails as appropriate (see Frontcountry Trails, Backcountry Hiking and Skiing); protect water and sensitive habitats (see Water).
- Upgrade Watson Lake facilities to Environmental Stewardship Division' standards (see Frontcountry Trails).
- Consider developing day-use area (see Day-use).

• Offer mountain goat awareness training to snowmobile users (see Wildlife).

## Extension Provide interpretative signs at highway pull-outs and rest areas (see Communications)

• Discuss interpretative trail development with local community members and First Nations (see Community Relationships, Interpretative Trail).

## **Longer Term (10 years plus)**

#### Conservation

• Continue monitoring programs (see Wildlife); manage activities as required.

### **Planning**

• Undertake formal review of the management plan after at least ten years.

#### Recreation

- Continue monitoring programs (see Land and Resource Tenures, Backcountry Hiking and Skiing, Horseback Riding, Mountain Biking, Snowmobiling, Frontcountry Camping); manage activities as required.
- Investigate possibility of linking trails (see Backcountry Hiking and Skiing).
- Conduct an assessment of additional public and commercial structures and facilitate development, if appropriate (see Issue Facilities).
- Consider upgrading Oliver Creek Trail to allow horseback riding and mountain biking (see Vegetation, Horseback Riding, Mountain Biking).
- Consider developing multi-purpose trail based on Meanskinisht Logging Road (see Horseback Riding, Mountain Biking).
- Consider developing frontcountry campground (see Frontcountry Camping, Land and Resource Tenures).
- Design sufficient parking at all trailheads (see Access).

#### **Extension**

Revisit brochure, advertisement and promotion as patterns of use change and if limits of acceptable change are reached. (See Communications).

# Seven Sisters Park and Protected Area

## MANAGEMENT PLAN

 ${\it Appendix \ I}$  Seven Sisters Park and Protected Area Designation



## Appendix I Seven Sisters Park and Protected Area Designation

#### Protected Areas of British Columbia Act Schedule C

#### 353 SEVEN SISTERS PARK

All those parcels or tracts of Crown land, together with all that foreshore or land covered by water, situated in Cassiar District and Range 5, Coast District and contained within the described boundaries as shown on the Official Plan deposited in the Crown Land Registry as Plan 6 Tube 1840.

The whole park containing approximately 27 200 hectares.

#### Environment and Land Use Act Seven Sisters Protected Area Order In Council 58/2001

#### **Contents**

- 1. Definitions
- 2. Protected Area
- 3. Application of the Park Act
- 4. Management and Administration of Protected Area
- 5. Mushroom Harvesting Schedule

#### **Definitions**

1. In this order:

**"minister"** means, unless the context requires otherwise, the minister responsible for the *Park Act*, and includes a person designated in writing by the minister;

"protected area" means the protected area established under section 2.

#### **Protected Area**

2. Seven Sisters Protected Area, consisting of the land described in the Schedule, is established as a protected area.

#### **Application of the** *Park Act*

3. Subject to this order, sections 1, 2, 3, 6, 8 (1) and (2), 9 (1) and (2) and 13 to 30 of the *Park Act* and the regulations under the *Park Act* apply to the protected area as

though it is a "park" of Class A continued or established under section 2 of the *Protected Areas of British Columbia Act*.

#### **Management and Administration of Protected Area**

4. Subject to this order, the minister is authorized to and must manage and administer the protected area.

#### Mushroom Harvesting

5. Despite section 3, the minister may allow, subject to such terms and conditions and at such times as the minister may specify, the harvest of pine mushrooms (Tricholoma magnivelare) within the protected area.

#### Schedule

All those parcels or tracts of Crown land, together with all that foreshore or land covered by water, situated in the Cassiar and Range 5 Coast Districts and contained within the described boundaries as shown on the Official Plan deposited in the Crown Land Registry as Plan 7 Tube 1840; except (1) the right of way of Yellowhead Highway 16 shown on Plan 29 Tube 561, Plan 20 tube 566 and Plan 14 Tube 967 all on deposit in the Crown Lands Registry; and (2) the Boulder Creek West Rest Area as shown on Highway District Plan No. 54-16-75 and established by Gazette Notice No. 9653, November 1, 1984.

The whole protected area containing approximately 12,006 hectares.

# Seven Sisters Park and Protected Area

## MANAGEMENT PLAN

Appendix II
Environmental Stewardship Division Zoning
Policy and Descriptions



## Appendix II Environmental Stewardship Division Zoning Policy and Descriptions

	Intensive Recreation	Natural Environment
OBJECTIVE	To provide for a variety of readily accessible, facility-oriented outdoor recreation opportunities.	To protect scenic values and to provide for backcountry recreation opportunities in a largely undisturbed natural environment.
USE LEVEL	Relatively high density and long duration types of use.	Relatively low use but higher levels in association with nodes of activity or access.
MEANS OF ACCESS	All-weather public roads or other types of access where use levels are high (see "Impacts" below).	Mechanized (power-boats, snowmobiles, all terrain vehicles), non-mechanized (foot, horse, canoe, bicycle). Aircraft and motorboat access to drop-off and pickup points will be permitted.
LOCATION	Contiguous with all-weather roads and covering immediate areas, modified landscapes or other high-use areas.	Removed from all-weather roads but easily accessible on a day-use basis. Accessible by mechanized means such as boat or plane.
SIZE OF ZONE	Small; usually less than 2,000 ha.	Can range from small to large.
BOUNDARY DEFINITION	Includes areas of high facility development in concentrated areas.	Boundaries should consider limits of activity/facility areas relative to ecosystem characteristics and features.
RECREATION OPPORTUNITIES	Vehicle camping, picnicking, beach activities, power-boating, canoeing, kayaking, strolling, historic and nature appreciation, fishing, snowplay, downhill and cross-country skiing, snowshoeing, specialized activities.	Walk-in/boat-in camping, power-boating, hunting, canoeing, kayaking, backpacking, historic and nature appreciation, fishing, cross-country skiing, snowmobiling, river rafting, horseback riding, heli-skiing, heli-hiking, and specialized activities.

Special Feature	Wilderness Recreation	Wilderness Conservation
To protect and present significant natural or cultural resources, features or processes because of their special character, fragility and heritage values.	To protect a remote, undisturbed natural landscape and to provide backcountry recreation opportunities dependent on a pristine environment where air access may be permitted to designated sites.	To protect a remote, undisturbed natural landscape and to provide unassisted backcountry recreation opportunities dependent on a pristine environment where no motorised activities will be allowed.
Generally low.	Very low use, to provide solitary experiences and a wilderness atmosphere. Use may be controlled to protect the environment.	Very low use, to provide solitary experiences and a wilderness atmosphere. Use may be controlled to protect the environment.
Various; may require special access permit.	Non-mechanized; except may permit low frequency air access to designated sites; foot, canoe (horses may be permitted).	Non-mechanized (no air access); foot, canoe (horses may be permitted).
Determined by location of special resources; may be surrounded by or next to any of the other zones.	Remote; not easily visited on a day-use basis.	Remote; not easily visited on a day-use basis.
Small; usually less than 2000 hectares.	Large; greater than 5,000 hectares.	Large; greater than 5,000 hectares.
Area defined by biophysical characteristics or the nature and extent of cultural resources (adequate to afford protection).	Defined by ecosystem limits and geographic features. Boundaries will encompass areas of visitor interest for specific activities supported by air access. Will be designated under the <i>Park Act</i> .	Defined by ecosystem limits and geographic features. Will be designated under the <i>Park Act</i> .
Sight-seeing, historic and nature appreciation. May be subject to temporary closures or permanently restricted access.	Backpacking, canoeing, kayaking, river rafting, nature and historic appreciation, hunting, fishing, cross-country skiing, snowshoeing, horseback riding, specialized activities (e.g. caving, climbing).	Backpacking, canoeing, kayaking, river rafting, nature and historic appreciation, fishing, cross-country skiing, snowshoeing, horseback riding, specialized activities (e.g. caving, climbing).

	Intensive Recreation	Natural Environment
FACILITIES	May be intensely developed for user convenience. Campgrounds, landscaped picnic/play areas, trail accommodation or interpretative buildings; boat launches, administrative buildings, service compounds, gravel pits, disposal sites, wood lots; parking lots, etc.	Moderately developed for user convenience. Trails, walk-in/boat-in campsites, shelters, accommodation buildings may be permitted; facilities for motorised access e.g. docks, landing strips, fuel storage, etc.
IMPACTS ON NATURAL ENVIRONMENT	Includes natural resource features and phenomena in a primarily natural state but where human presence may be readily visible both through the existence of recreation facilities and of people using the zone. Includes areas of high facility development with significant impact on concentrated areas.	Area where human presence on the land is not normally visible, facility development limited to relatively small areas. Facilities are visually compatible with natural setting.
MANAGEMENT GUIDELINES	Oriented toward maintaining a high quality recreation experience. Intensive management of resource and/or control of visitor activities. Operational facilities designed for efficient operation while remaining unobtrusive to the park visitor.	Oriented to maintaining a natural environment and a high quality recreation experience. Visitor access may be restricted to preserve the recreation experience or to limit impacts. Separation of less compatible recreational activities and transportation modes. Designation of transportation may be necessary to avoid potential conflicts (e.g. horse trails, cycle paths, hiking trails).
EXAMPLES OF ZONING	Campground in Rathtrevor Beach Park; Gibson Pass ski area in E.C. Manning Park.	Core area in Cathedral Park; North beach in Naikoon Park.

Special Feature	Wilderness Recreation	Wilderness Conservation
Interpretative facilities only, resources are to be protected.	Minimal facility development for user convenience and safety, and protection of the environment e.g. trails, primitive campsites, etc.  Some basic facilities at access points, e.g. dock, primitive shelter, etc.	None.
None; resources to be maintained unimpaired.	Natural area generally free of evidence of modern human beings. Evidence of human presence is confined to specific facility sites. Facilities are visually compatible with natural setting.	Natural area generally free of evidence of modern human beings.
High level of management protection with ongoing monitoring. Oriented to maintaining resources and, where appropriate, a high quality recreational and interpretative experience. Active or passive management depending onsize, location, and nature of the resource. Visitor access may be restricted to preserve the recreation experience and to limit impacts.	Oriented to protecting a pristine environment. Management actions are minimal and notevident. Managed to ensure low visitor use levels. Visitor access may be restricted to protect the natural environment and visitor experience.	Oriented to protecting a pristine environment. Management actions are minimal and notevident. Managed to ensure low visitor use levels. Visitor access may be restricted to protect the natural environment and visitor experience.
Tidepools in Botanical Beach Park; Sunshine Meadows in Mount Assiniboine Park.	Quanchus Mountains Wilderness in Tweedsmuir Park; Wilderness Zone in Spatsizi Park.	Central Valhalla Wilderness in Valhalla Park; Garibaldi Park Nature Conservancy area.

# Seven Sisters Park and Protected Area

## MANAGEMENT PLAN

Appendix III
Seven Sisters Park Trail Descriptions



## Appendix III Seven Sisters Park Trail Descriptions

Boulder Creek Trail starts about 250 metres uphill from Highway 16, along a 2WD logging road that leaves the highway immediately west of Boulder Creek. The trail is long (9 kilometres; ~ 400 metre elevation gain; 7 – 9 hours return) with steep portions, and is difficult to follow past the 6 kilometre mark; hence it is suitable for experienced hikers. The trail passes through coniferous forests and open stream bed, ending with a spectacular view of the icefield and north face of the Seven Sisters Mountains. Experienced hikers, skiers and mountaineers use the trail to access the backcountry (between Boulder and Coyote creeks; a cirque on the east end of the Seven Sisters; a circle route around the peaks) and north face of the Seven Sisters. Vehicles are parked at the trailhead on weekends during summer, but use is low during the week.

Whiskey Creek Trail begins at a rock pit just north of Gull Creek on Highway 16. The first part of the trail, to Whiskey Creek, is short (3 kilometres; 200 metre elevation gain; 2 – 2.5 hours return), well-graded and easy to follow, suited for families and novice hikers. The Whiskey Creek crossing is difficult and sections of the trail beyond are indistinct; hence the entire hike (total 7.2 kilometres; 600 metre elevation gain; 6 - 7 hours return) is best suited for experienced hikers. The trail passes through coniferous and mixed forest, with occasional glimpses of the Skeena valley and the Seven Sisters Mountains. The trail ends with a complete view of the north face of the mountains. Day hikers, backcountry hikers, and occasionally mountaineers use the trail. From 2 - 8 vehicles are parked at the trailhead on sunny days from July to October.

Cedarvale Trail (Black Sister Trail/Turley Trail) is reached along 3 kilometres of a logging road (4WD) leaving the highway about 500 metres northeast of Coyote Creek. This trail is noted as originally being a Gitxsan hunting, trapping and gathering trail. The trail is short (3.2 kilometres; 370 metre elevation gain; 3 – 4.5 hours return), well-maintained and easy to follow, with moderate grades, and is suited for families and novice hikers. The trail ends at timberline at a terminal moraine of large boulders, with a view of the Seven Sisters Mountains, and often of mountain goats. The trail climbs through old hemlock and cedar forest with no viewscapes until the moraine. A picnic and camping site at a small lake is used by hunters and hikers. It is possible to scramble further up the mountain gully to the glacier; travel beyond the tip of the glacier involves technical rock climbing skills and equipment. Family groups, day hikers and mountain goat hunters use the trail. Two to five vehicles are parked at the trailhead on sunny weekends; fewer during the week.

Coyote Creek Trail begins from an old part of the highway, about 1 kilometre south of Coyote Creek. The trail is an old mining road and leads past the old Magnatron Mine site (outside the park). It is long (12 kilometres; 1,500 metre elevation gain; 8 – 11 hours return) and steep with eroded sections. The trail ends on an alpine slope on the southwest side of the Seven Sisters. No viewscapes occur until timberline. The alpine offers spectacular views of the Seven Sisters peaks, the Skeena valley and surrounding mountains. Experienced hikers and skiers can travel around a basin and on to a ridge to join with the Oliver Creek Trail. Mountaineers use Coyote Creek Trail. Coyote Creek Trail is also used by horseback riders, mountain bikers, snowmobile users and ATV riders. Although the trail is in a General Resource Development zone, it is used to reach

the park.

Watson Lake Trail is reached along 0.7 kilometres of old highway (2WD) leaving the Highway 16 about 2 kilometres south of Hells Bells Creek. The trail is very short (3 kilometres; 200 metre elevation gain; 2 – 3 hours return), well-graded and easy to follow, and is ideal for families and novice hikers. The trail passes three small lakes, each with scenic picnic or camping sites. The third lake, Watson Lake, is stocked with rainbow trout. The trail provides occasional scenic views of the Skeena valley and surrounding mountains. The trail receives high use by families on weekends.

Oliver Creek Trail begins from a gravel pit on Highway 16, about 6 kilometres north of Oliver Creek. The trail is an old mining road, wide and easy to follow. It is very long (17 kilometres; 1,500 metre elevation gain; 10-14 hours return), and well-graded, suitable for hikers and skiers of all levels, but better suited to an overnight backpack than a day trip. The trail passes through young forest, old-growth forest, subalpine meadows, and ends in a spectacular alpine basin with a panoramic view of the south face of the Seven Sisters peaks and glaciers. The Flint Creek Extension from the end of the Flint Creek Logging Road joins Oliver Creek Trail at Kilometre 6. A route across a ridge links Oliver Creek Trail to the top of the Coyote Creek Trail, leading back to the highway. Oliver Creek Trail provides access to the backcountry and mountain slopes for hikers and skiers. The trail has also been used by horseback riders, mountain bikers, snowmobile users and ATV riders.

Flint Creek Road, outside the park, provides snowmobile access to the park in winter and 4WD access to hiking in the summer. The Flint Creek Extension (a muddy "cat-track" built to reach a trapper's cabin) runs from the end of the road across Hells Bells Creek to link up with the Oliver Creek Trail at Kilometre 6. The Flint Creek Road does not provide good hiking or ski-touring access to the park, because of its length (12 kilometres to the extension) and lack of views.