

MANAGEMENT PLAN

October 2002



Moose Valley & Flat Lake Provincial Parks



BRITISH
COLUMBIA
Ministry of Water, Land &
Air Protection
Environmental Stewardship
Division

Moose Valley and Flat Lake Provincial Parks

MANAGEMENT PLAN

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**Moose Valley and
Flat Lake Provincial Parks**

Management Plan

Approved by:


Steve Mazur
Regional Manager

Date: January 27/03


Nancy Wilkin
Assistant Deputy Minister

Date: Feb. 24/03

This plan is a component of the *Cariboo-Chilcotin Land-Use Plan* and was developed through direction from that plan.

The management plan has been endorsed by the Cariboo Mid-Coast Interagency Management Committee and the Cariboo-Chilcotin Regional Resource Committee as being “consistent with the spirit and intent of the *Cariboo-Chilcotin Land-Use Plan*.”

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The plan was developed and written by Tracy Ronmark, Assistant Planner for Environmental Stewardship Division in the Cariboo Region.

Plan Highlights

- ✓ Moose Valley and Flat Lake Parks were designated as a result of *the Cariboo-Chilcotin Land-Use Plan*. Both areas were highlighted to protect wetland habitats for aquatic fur-bearers and waterfowl as well as to provide opportunities for backcountry recreation. This management plan was created with the challenge of balancing the protection of those important ecological values while providing for local and accessible recreation opportunities.
- ✓ This plan reflects the input of many local recreationists, tourism operators, ecosystem specialists and other members of the public with a variety of interests. It also reflects Government-to-Government involvement from the Northern Secwepemc te Qelmu cw, as part of a pilot project in parks management planning participation. The goal of this plan is to set management direction for these parks so that wilderness recreation opportunities, ecosystem integrity and protection of cultural heritage can exist in perpetuity.
- ✓ The right to hunt, trap, guide-outfit and fish have been confirmed as acceptable uses in Flat Lake and Moose Valley Parks. Existing levels of commercial use will be maintained.
- ✓ The parks will maintain a non-motorized “pocket wilderness” where no-trace camping will be allowed. Any future development will have to be compatible with the pocket wilderness setting.
- ✓ Future recreational use will be focused into Flat Lake Park. The BC Parks website information for Flat Lake Park will be improved, with a map showing portages and access. The website for both parks will focus on the undeveloped and sensitive nature of the parks.
- ✓ Public use will be managed to ensure use is not detrimental to the ecological integrity of the parks or to the cultural resources and activities located within them.
- ✓ An addition to Flat Lake Park will be pursued on Davis Lake. This addition will improve public access and improve the wilderness experience on the chain of lakes. Alternative routes to the east end of Moose Valley Park will be explored over the long term.
- ✓ The plan includes several small recommended additions and deletions to Moose Valley Park. These additions and deletions remove industrial roads from the park and result in more manageable park boundaries.
- ✓ Partnerships with local users, clubs, institutions and the Northern Secwepemc te Qelmu cw will be considered to help monitor recreational use and impacts, educate the public regarding the parks’ values, and promote key management messages.
- ✓ Access will be monitored to protect environmental and cultural values.

1.0 Introduction

1.1 Management Planning Process

The Moose Valley and Flat Lakes Provincial Parks Management Plan was developed through a process facilitated by Environmental Stewardship Division. This plan is intended to direct management of these parks for the next 10 to 15 years.

Environmental Stewardship Division compiled maps and other relevant background information on the parks and presented that information at a public workshop in 100 Mile House. Key stakeholders were contacted by invitation to attend the workshop; the workshop was also open to the general public. Environmental Stewardship Division worked to ensure that all major interests were included.

The workshops brought forward many of the key concerns surrounding the management of these parks, as well as ideas and possible solutions to address these concerns. It was important to the management planning process to collect local information and knowledge of the area to address the management issues that arose.

Much of the work in this planning process occurred in a Technical Working Group (TWG) comprised of Environmental Stewardship Division staff. Other agency representatives and members of the public were involved when appropriate.

Information from the public workshop and TWG was integrated to generate strategies and objectives appropriate to the conservation and recreational values of the parks. Feedback with the TWG was used to make changes to the objectives and strategies as required. A second public workshop in 100 Mile House was held to communicate the draft plan.

Environmental Stewardship Division also worked with the Northern Secwepemc te Qelmuw (NStQ) to include their input in the plan and reflect a Government-to-Government relationship, as part of a Treaty Related Measure. This included working with a NStQ member who acted as a liaison with Environmental Stewardship Division staff and was able to research and summarize NStQ past and current use of the area. The NStQ also provided management recommendations from their preliminary research of the park areas, review of this plan, and the *Northern Secwepemc te Qelmuw Land Use Plan* (2002).

1.2 Relationship with Other Land Use Planning

In 1995, the Cariboo-Chilcotin Land-Use Plan created 17 new parks and protected areas including Moose Valley and Flat Lake Provincial Parks. The *CCLUP 90 Day Implementation Process Report* contains a significant amount of direction on the management of these new areas. Direction included:

- Dominant ecological values should be protected, and that uses such as recreation, cattle grazing (except Junction Sheep Range), hunting, trapping and backcountry tourism, will be allowed.
- Mining tenures fully within the boundaries will be extinguished.
- The park will be available, in principle and where appropriate, for commercial tourism and recreation. Development opportunities will be identified during area-specific management

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planning which will recognize the protection of the special natural values of each area and the provision for public non-commercial recreation.

- Existing approved levels of cattle grazing will continue. The maximum level of animal unit months (AUMs) will be set at the existing level of authorized AUMs as of October 24, 1994.
- Opportunities for enhancing grazing for expressed management purposes may be addressed in subsequent management plans, which would be developed in consultation with affected operators.
- No private land will be included within protected areas unless the government negotiates a mutually-agreed purchase. Existing landowner use, development and access rights will be unaffected by protected areas.

2.0 The Role of the Parks

2.1 Provincial Context

Moose Valley Provincial Park is 2,322 hectares in size and is located about 30 km west of 100 Mile House. Flat Lake Provincial Park is 4,344 hectares in size and lies about 20 km south of 100 Mile House in the South Cariboo. Located on the high elevation Fraser Plateau, these parks are a matrix of small lakes, wetlands and dry forest.

Moose Valley and Flat Lake Parks are located in the Cariboo Basin (CAB) ecosection within the Fraser Plateau ecoregion of the Central Interior.¹ The Cariboo Basin ecosection is a rolling upland with dry Douglas fir forest, interspersed with wetlands and grasslands on south-facing slopes.

One goal of the Province's Protected Areas Strategy is to protect representative examples of all ecosections in the province. Currently only 1.12% of the Cariboo Basin ecosection is captured in the protected areas system, with Moose Valley and Flat Lakes comprising almost two-thirds of that 1.12%. (See figure 1) Other parks in the CAB ecosection include Big Bar Lake, Green Lake and Chasm.

Moose Valley and Flat Lake parks also fall within the Interior Douglas Fir (IDF) biogeoclimatic zone.² The Interior Douglas-fir Zone lies in the heart of British Columbia's southern interior. It is a land of rolling hills and valleys covered by dry grasslands and open forests. Although it is best known for cattle ranching and forestry, this zone also supports a rich diversity of natural communities and wildlife species. The dk3 means the area is a relatively dry and cool subzone within the IDF zone.

Currently only 1.33% of IDFdk3 is represented within the system, and Moose Valley and Flat Lake comprise almost half of that 1.33%. (Figure 1) Other protected areas within the IDFdk3 biogeoclimatic zone include Marble Range, Edge Hills, Churn Creek, Green Lake and Chasm.

The parks are located within the NStQ Territory, and within the Cariboo Tribal Council Statement of Intent area as identified for the BC Treaty Process.

¹ The Ecoregion Classification System is a framework for recognizing small scale ecosystems in BC. The most detailed unit of classification is the ecosection. Ecosection classification divides the province into units based primarily on climate, landforms, oceanography, hydrology, vegetation and wildlife potential. There are 112 land and marine ecosections in British Columbia.

² A Biogeoclimatic zone is defined as "a geographic area having similar patterns of energy flow, vegetation and soils as a result of a broadly homogeneous macro-climate." The Biogeoclimatic Ecological Classification (BEC) system is a principal tool used to classify and describe ecosystems in British Columbia. There are 14 biogeoclimatic zones in the province. Zones are divided into subzones (98 in BC) which have a more uniform climate than zones and have unique plant communities.

Figure One – Significance of Moose Valley and Flat Lake

	Biogeoclimatic Subzone or Variant	Total Amount in Province	Total Amount Protected in Province	% of IDFdk3 Protected Provincially	% of Provincial Total Protected in Park
Moose Valley Park	IDFdk3	874,293 ha	11,612 ha	1.3%	17.2%
Flat Lake Park	IDFdk3	874,293 ha	11,612 ha	1.3%	26.53%
	Ecosection	Total Size of CAB Ecosection	Total Amount Protected in Province	% of CAB Protected Provincially	% of Provincial Total Protected in Park
Moose Valley Park	Cariboo Basin	951,414 ha	10,630 ha	1.12%	22.48%
Flat Lake Park	Cariboo Basin	951,414 ha	10,630 ha	1.12%	40.08%

2.3 Protected Area Roles

Conservation

Moose Valley

Moose Valley Provincial Park encompasses relatively undisturbed wetlands nestled within a dry rolling landscape. These numerous wetlands and small lakes provide habitat for a variety of wildlife species, and are also very rich in delicate wetland mosses, which are an important part of the ecosystem.

The area also provides an example of the glacial history of the Cariboo Plateau. The lakes and small ponds were left behind following the melting of large chunks of buried glacial ice. They are annually replenished by snow-melt and underground springs. The forested rocky outcrops surrounding the park are also a product of the last ice age.

Flat Lake

The glacial history of Flat Lake Park has created numerous kettle lakes, small islands, marshes and fens. These features, when combined with the adjacent fir, pine and spruce forests, provide an excellent example of the area's natural history. Flat Lake is rich in biodiversity because of the variety of ecosystems found within its borders.

Cultural Heritage

There are a number of First Nations bands with interests in the area of Moose Valley and Flat Lake Provincial Parks. The area was used for residence, sustenance hunting and gathering, as well as for various ceremonial and recreational activities. A Cultural Heritage Overview was

completed for the Cariboo Forest Region in 1997³. This overview was based on a literature review of First Nations' land use activities. There were no cultural sites identified within either of the parks as a result of this review; however, the review did not include consultation with First Nations or on-the-ground assessments.

Traditional Use Studies and archaeological research carried out by NStQ communities (and outside consultants) since 1996 has demonstrated that the Flat Lakes and Moose Valley area have a high potential for cultural sites and activities. The research completed as part of NStQ participation in the development of this management plan has provided initial data to confirm that potential. This management plan provides a summary of that information. Detailed documentation of use remains with the NStQ communities and research in this area is ongoing.

Tourism and Outdoor Recreation

Moose Valley

The chain of lakes provides opportunities for day-use canoeing. In the winter months the area is used for cross-country/backcountry skiing and dog sledding. The cabin on Maitland Lake provides a sheltered stopover for lunch and getting warm. Hunting parties are also known to use the campground on Marks Lake as a staging area in the fall.

Flat Lake

With fewer formal developments, recreation in the park is centered mainly on the canoe chain. Being a larger park than Moose Valley, the Flat Lake chain may offer more opportunities for overnight trips, including canoeing in the summer and skiing in the winter. The high level of biodiversity in the park provides many opportunities for viewing wildlife, including ungulates, small mammals, songbirds and waterfowl.

³ Diana Alexander. 1997. A Cultural Heritage Overview of the Cariboo Forest Region. Prepared for the Cariboo Forest Region, Ministry of Forests. Williams Lake, BC.

2.4 Vision Statement

The vision statement outlined below is intended to provide direction for the long-term management of Moose Valley and Flat Lake Parks. **The vision statement describes the condition of the parks 50 years from now if the intent of the management plan is followed. It is not meant to describe the current condition of the parks.** The vision statement is used to provide context and guidance for park managers to make decisions about stewardship, recreation and other activities in the parks. The appropriateness of any new activities that may not have been contemplated when the plan was written should be considered in the context of the vision statement.

Since their designation in 1995, Moose Valley and Flat Lake Parks have continued to protect remnants of forest-wetland complexes of the Fraser River Plateau. Non-motorized recreation, particularly canoeing, continues to be enjoyed in the parks.

Moose Valley and Flat Lake Parks are known, and will continue to be known, as recreation parks in a pocket wilderness. The diverse ecosystems of the parks continue to be managed to maintain their integrity within the context of the surrounding land uses. The lake and wetland complexes protected within these parks have become increasingly significant as relatively undisturbed aquatic habitats that support a diversity of invertebrates, fish, waterfowl, ungulates and other mammals.

Recreation use at Moose Valley Park has remained low given management practices for the sensitive nature of the wetlands. Since the canoe route's development in the 1970s, new portage trails have been built to bypass some of the sensitive wetland areas. Recreation use of Moose Valley is concentrated around local user groups focused on day canoe and cross-country ski use. Successful partnerships with local user groups in monitoring impacts of recreation use have resulted in better understanding and management of use in the park.

Flat Lake Park use has increased slowly but steadily, with overall use remaining low, maintaining the wilderness experience of the park. There has been hardening of a few campsites, but sites remain primitive. Canoeists and birdwatchers alike have recognized the values of this park.

Local naturalist groups as well as researchers have worked with Environmental Stewardship Division in inventorying the natural values of the areas, increasing the baseline knowledge of the area to inform better management decisions. Trapping, hunting and grazing activities continue within the parks and have been managed to maintain the ecological integrity of the parks, in consideration of, and with the cooperation of, permit and tenure holders within the parks.

First Nations groups with interests in the area continue to work co-operatively with Environmental Stewardship Division to manage these parks in the context of the surrounding landscape. Working as stewards, these groups have taken a strong lead in preserving cultural and natural resources in the area. First Nations participation in the planning and management of these parks has provided a framework for other successful partnerships in park management planning in the region

2.5 Relationship with First Nations

Environmental Stewardship Division is committed to working with First Nations on a Government-to-Government basis. Where First Nations have Land Use Plans, Environmental Stewardship Division will work to coordinate park management planning where agreements are possible.

A number of First Nations have asserted traditional territories that encompass these parks. They include the Alkali Lake Band, Whispering Pines Band, Canoe Creek Band, Canim Lake Band, and High Bar Band.

Environmental Stewardship Division worked in cooperation with the Cariboo Tribal Council in developing this plan. Other bands were contacted and made aware of the process. Environmental Stewardship Division will endeavor to communicate on an ongoing basis with all First Nations regarding the management of these parks.

The creation of the parks and subsequent management planning, are without prejudice to any existing aboriginal rights, and are subject to the outcome of any treaty discussions.

The NStQ has provided the following summary:

NStQ Use of Flat Lake and Moose Valley Parks

The Northern Secwepemc te Qelmuw (NStQ) have been living in the Cariboo Region since time immemorial; according to archaeologists, our specific culture has been recognizable on the landscape for at least 4,000 years, as evidenced by pit house villages and other cultural markers. There is further evidence that our ancestors were here for at least 6,000 years before that. Our language connects us to the land through place names that describe our long-standing relationship with the land and its resources. For example, we have a name for the area around Flat Lakes and Moose Valley that means “Wild Horse Hunting Area” - *Tet'xelc*. There is also a name for Flat Lakes that means “Never-ending Lakes”. Our ceremonies demonstrate how closely our culture depends on the land and how our people are part of their territory, or *Secwepemculecw*.

We followed a permanent seasonal round of resource procurement with recognized family and shared resource areas that were regularly returned to and managed over thousands of years. During the winter people lived in semi-subterranean “pit homes” - *sc7istktn* for warmth and subsisted mainly on stored salmon and root foods. This was a time for ceremonial activities. (In some cases First Nation people lived in the villages year-round.) A number of Interior Plateau village sites were occupied for over 7,000 years. During the spring, people moved out onto the Territory gathering plants, including the cambium layer of pine trees for vitamins. During the summer, salmon fishing and berry picking were the main sources of food. This was also a time for inter and intra-tribal gatherings and trade. Most hunting was done in the fall. The extensive network of trails, archaeological and traditional use evidence demonstrates that people utilized huge areas of territory, including the Flat Lakes/Moose Valley area, in regular patterns. This seasonal round and pattern of use

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and resource management continues to be followed today, with many community members providing much of their families' food from the land and enjoying social, ceremonial and recreational activities "out on the land".

The Moose Valley/Flat Lake area has been home and an important source of plant and animal resources for the Canim Lake Band (*Tsq'escen'*) and Canoe Creek Band (*Xag'tem/Stwecem'c*) in particular. (The area was also a key area for the Lac la Hache and Green Timbers people, the survivors of which are now absorbed into other Secwepemc bands.) The area has been, and continues to be, used for trout fishing, food and medicine plant gathering, trapping, haying, trade, deer and moose hunting, permanent, summer and winter occupation, social, recreational and ceremonial activities. The *Tsq'escen'* in particular continues to be dependent on lakes fisheries in the area as they have no direct access to salmon.

Thirty-four traditional cabin/hay meadow complexes have been documented in the area to date, many of which are located over top of ancient occupation sites. The hay meadows were used for recreational purposes as well as haying, including for stick hockey, which is a combination of football and lacrosse. (The latest stick hockey game occurred in the area in 2002 as part of the *Secwepemc Unity Ride* activities.) Joe Archie, a *Tsq'escen'* Elder, lived near Flat Lake and was contracted for fencing and haying in the 1950's and '60s. The area has also been used for commercial and recreational guiding by *Xag'tem/Stwecem'c* member Augustine Tenale since the 1960's. Other NStQ are also involved in informal guiding in the area to this day and members have expressed interest in developing cultural tourism ventures in the area.

The NStQ used the wild horses as competition to ride when they had days off from haying. The wild horses had an economic value as well and they were sold to the local ranchers for rodeo stock. They were also hunted for food, traded and used in prizes for lehal games. The horses were also trained to catch other wild horses, because "it takes one to catch one". They were trained (broke) for personal use, horseback riding, and workhorses to pull wagons, horse logging, and haying for the "sloops" (sleighs). They were used for packing wild game. The horses were also used to pull the scrapers to build the dams the First Nations built further down the creek for irrigating their hay fields at Dog Creek.

The types of heritage resources requiring protection within the parks are predicted (at this point) to include fishing sites, hunting cabins and trap lines, sweat lodges, camp sites, trails, locally rare or infrequent medicinal plants, including *Secwsqéqxe7ten* (*Ledum groenlandicum*), commonly known as Swamp Tea or Indian Tea, Culturally Modified Trees (CMTs) and cache pits or other cultural depressions (including pit homes). Other plants that have been identified in the area (to date) as being culturally important are listed in the table at the end of this box.

Swamp tea has been noted to be less and less available in the NStQ Territory; it is considered to be a threatened species by the Secwepemc. There is a general concern about continued access to all traditional use plants in the area due to the extensive logging that has occurred in the last few decades.

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Our hunters have been monitoring moose in the area. They are also especially concerned about the management and protection of moose and their habitat in the park area. The full life cycle from calving beds to rutting areas to salt licks requires protection. Logging and access roads in the area around the parks is a concern because it increases access to and impacts on wildlife, habitat and cultural resources.

Gustafson Lake or *Ts'peten* is a key cultural and natural resource area where extensive research has identified many important sites. NStQ community projects and the 2002 Cariboo Tribal Council Archaeology Field School with UNBC have located pit homes, cooking pits, CMTs, trails, fishing weirs, artifacts, cabins and many other features demonstrating continuous use and occupation of the lake and surrounding area. Work on the Flat Lakes and Moose Valley area is just beginning, in part through the work on this management plan. It is anticipated that with additional specific research on the Flat Lake and Moose Valley areas many more resources requiring protection and management will be identified, including past and current use areas. The NStQ will work with Environmental Stewardship Division and other concerned groups, including other First Nations as appropriate, to complete further research on this area and protect cultural and ecological values.

Common Name	Latin Name	Secwepemcstín
Soapberry	<i>Shepherdia Canadensis</i>	<i>Sxusém</i>
Kinnikinnick	<i>Arctostaphylos uva-ursi</i>	<i>Elk</i>
Common Juniper	<i>Juniperus communis</i>	<i>Punllp</i>
Common Dandelion	<i>Taraxacum officinale</i>	<i>Kwelkwákwelt</i>
Oval-leaved Blueberry	<i>Vaccinium ovalifolium</i>	<i>Sesep</i>
Wild Strawberry	<i>Fragaria Virginiana</i>	<i>Tqitqe</i>
Black Lichen	<i>Bryoria fremontii</i>	<i>Wile</i>
Yarrow	<i>Achillea millefolium</i>	<i>Qetsuye7e7llp</i>
Silverweed	<i>Potentilla anserina</i>	<i>Cilcel</i>
Douglas-fir moss	<i>Pseudotsuga menziesii</i> <i>var. glauca</i>	<i>Tsqellp</i>
Water lily	<i>Nuphar polysephalum</i>	<i>Qunllp</i>

2.6 Protected Areas Zoning

Environmental Stewardship Division uses zoning to assist in the planning and management of provincial parks and protected areas. In general terms, zoning divides an area into logical units to apply uniform and consistent management objectives for conservation and recreational values. The zones reflect a mix of intended land use, existing patterns of use, the degree of human use desired, and the level of management or development required.

Both Moose Valley and Flat Lake Parks are zoned entirely as Natural Environment. The main objective of the Natural Environment Zone is to protect scenic values and to provide for backcountry recreation opportunities in a largely undisturbed natural environment. Visitor access may be restricted to preserve the recreation experience or reduce impacts.

Facilities in the Natural Environment zone are only moderately developed for user convenience. In Moose Valley and Flat Lake Parks, this translates into facilities such as vehicle parking / staging areas, canoe portages and a few hardened, yet primitive, campsites. Facilities should be visibly compatible with the natural setting.

Allowable Activities and Levels of Use in the Natural Environment Zone

Activity/Use/Facility	Allowable in the Natural Environment Zone
Activity	
Beach activities (swimming, sunbathing)	Y
Boating (power)	N
Boating (non-power)	Y
Camping	Y
Commercial Recreation (facility-based)	N
Commercial Recreation (non-facility based)	Y
Fishing	Y
Hiking and walking	Y
Hunting	Y
Natural and cultural values appreciation (birding, photography, wildlife viewing)	Y
Recreational Gold panning and rock hounding	N
Scientific research (manipulative activities)	Y
Scientific research (specimen collection)	Y
Skiing (downhill or cross country tracked)	N
Skiing (helicopter or cat assisted)	N
Skiing (other – non-tracked cross country)	Y
Trapping	Y
Use	
Aircraft Access	Y
Exotic Insect/disease control	Y
Filming (commercial)	Y
Fire Management (prescribed fire)	Y
Fire Management (prevention)	Y
Fire Management (suppression)	Y
Fish Stocking and enhancement	N
Forest insect/disease control	Y
Grazing (domestic livestock)	Y
Guide outfitting (fishing)	Y

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Guide outfitting (hunting)	Y
Guide outfitting (nature tours)	Y
Horse use/pack animals (not exotic)	Y
Noxious weed control	Y
Off-road access (mechanical activities - bicycles)	Y (on trails only)
Off-road access (motorized – not snowmobiles)	N (for trapline management only)
Off –road access (snowmobiles)	N (for trapline management only)
Pack animals (exotic)	Y
Facility	
Administration buildings and compounds	N
Backcountry huts and shelters	N (existing only)
Boat launches	Y (non-motorboats only)
Campgrounds with picnic areas (vehicle accessed and serviced)	Y
Campgrounds (other)	N
Communication sites	N
Interpretation Signs	Y
Interpretation and information buildings	N
Roads and parking lots	Y (parking facilities)
Ski hills and snowplay areas	N
Lodges and other service accommodation	N
Trails (hiking, cycling, cross –country skiing)u	Y
Utility corridors	N (existing only)
Water control structures	N (existing only)

3.0 Natural Values Management – Moose Valley Park

3.1 Introduction

This section provides a brief description of primary natural attributes of Moose Valley Park and sets out resource management objectives and strategies to protect natural features and processes.

3.2 Land Uses, Tenures and Interests

Access Management

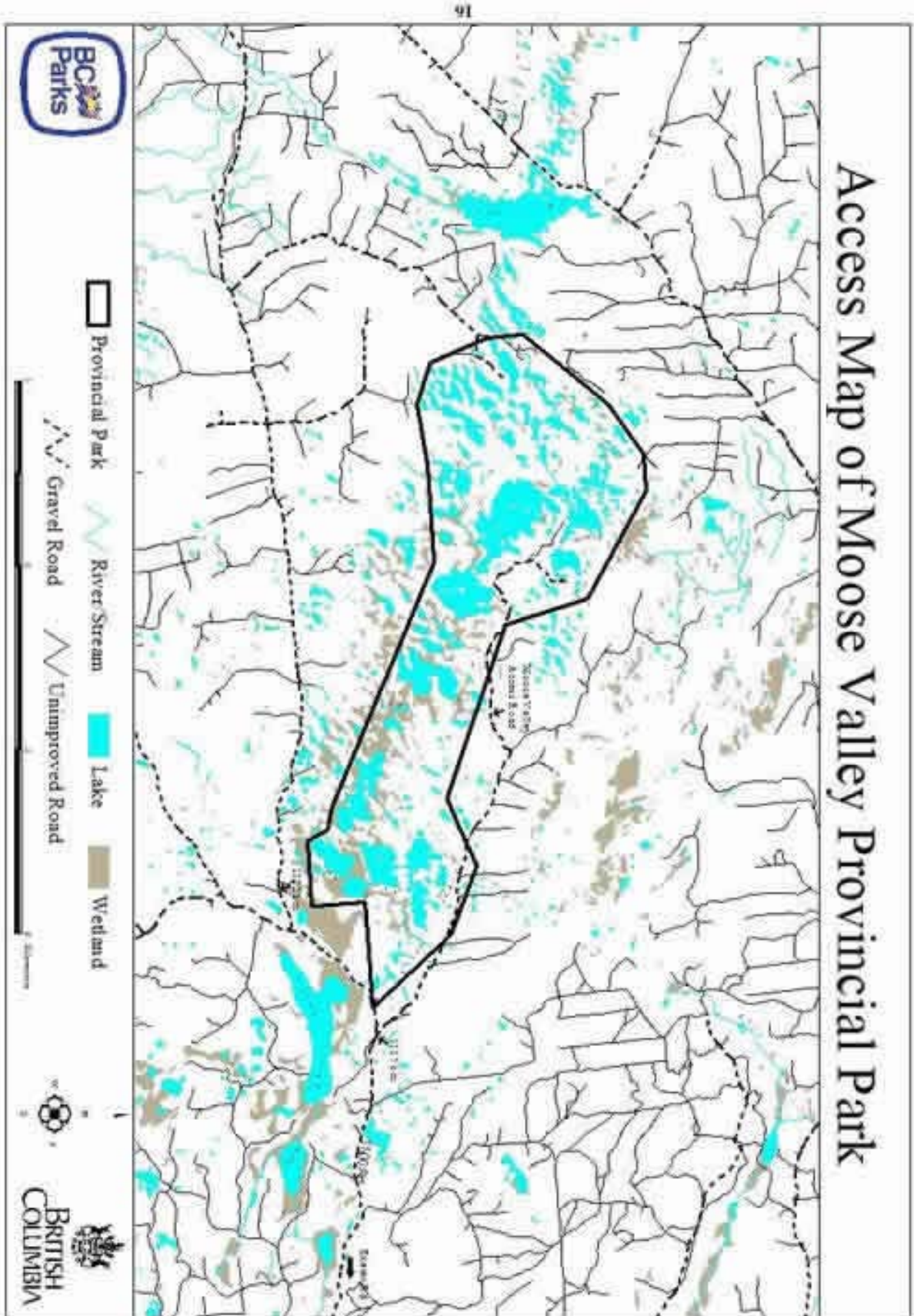
There is one main vehicle access to Moose Valley Park. This access follows Exeter Road and 1100 Road west from 100 Mile House. The 1100 Road forks at Holden Lake (1117 km), just east of the park. Following the rough road (Moose Valley Access Road) northwest will take visitors to the staging area/parking lot on Marks Lake.

The road from the 1117 km mark to the turn off to the Park has been under permit to forest licensees. This road will revert to Wilderness Road status once licensee obligations are complete. It is felt that the road will remain passable over the lifetime of this management plan and, as such this access to the park remains the best option.

Currently the main vehicle access road is rough and there is minimal signage directing visitors to the park. Directions can be attained through the BC Parks website.

There are other points of access to the park that are accessible by foot only. One foot trail goes from the 1100 Road south of the park (at the 1122 km sign), north into Canoe Lake. Another point of foot access is from the Moose Valley Access Road into Kirkland Lake.

When Moose Valley Park was created through recommendations of the Cariboo-Chilcotin Land Use Plan, the boundary contained a number of small irregularities resulting in small areas of parkland isolated by industrial roads. See Appendix A for recommended park boundary changes to remove Forest Service roads and create more manageable boundaries.



Moose Valley and Flat Lake Parks

Objectives	Strategies
<ul style="list-style-type: none"> ❑ Provide continued access to Moose Valley Park ❑ Maintain wilderness access road to Marks Lake. ❑ Minimize vehicle traffic within the park. ❑ Consider alternate access routes to the east end of the park to accommodate use of the east end of the chain during periods of low water levels and as a potential future alternative to the Marks Lake access. ❑ Maintain a minimal level of signage to Moose Valley Park. ❑ Identify and protect aboriginal trails. 	<ul style="list-style-type: none"> ❑ Work with the Forest Service and licensees to maintain the access road at its current (2002) condition. ❑ Maintain limited directional signage to the park from Exeter Road. ❑ Continue to use road to Marks Lake as main access to the park. Consider use of alternative routes if road to Marks Lake becomes impassible. ❑ Keep the road/path to the Maitland Lake cabin unimproved, closed to vehicle traffic beyond the campsite. Mark as 'Dead End Road' and do not improve road beyond the campground. ❑ Maintain the Marks Lake parking area as the key staging area in the park, however the trails may also be used to access the park by foot. ❑ Investigate access points to Long Lake and Deer Lake. ❑ No highway directional signs to the park will be erected. ❑ Signage to the park will start at 1117 km and from that point into the park. ❑ Complete, with First Nations, an inventory of aboriginal trails. Interpret, where appropriate, with First Nations. ❑ Pursue boundary changes to eliminate Forest service roads, and create more manageable boundaries.

Existing Tenures, Alienations and Encumbrances

A number of activities have taken place in the area of the park prior to its designation. These activities require issuance of tenure by the Crown. These activities include grazing, trapping and guide outfitting. These activities will be allowed to continue under the *Park Act* and provisions of the CCLUP. Trapping and guide outfitting activities in the park, which are pre-existing tenures, require a park use permits.

Some previously logged areas in Moose Valley Park (harvested prior to park designation in 1995) fall within the park boundary. In order for the natural process of succession to occur,

Moose Valley and Flat Lake Parks

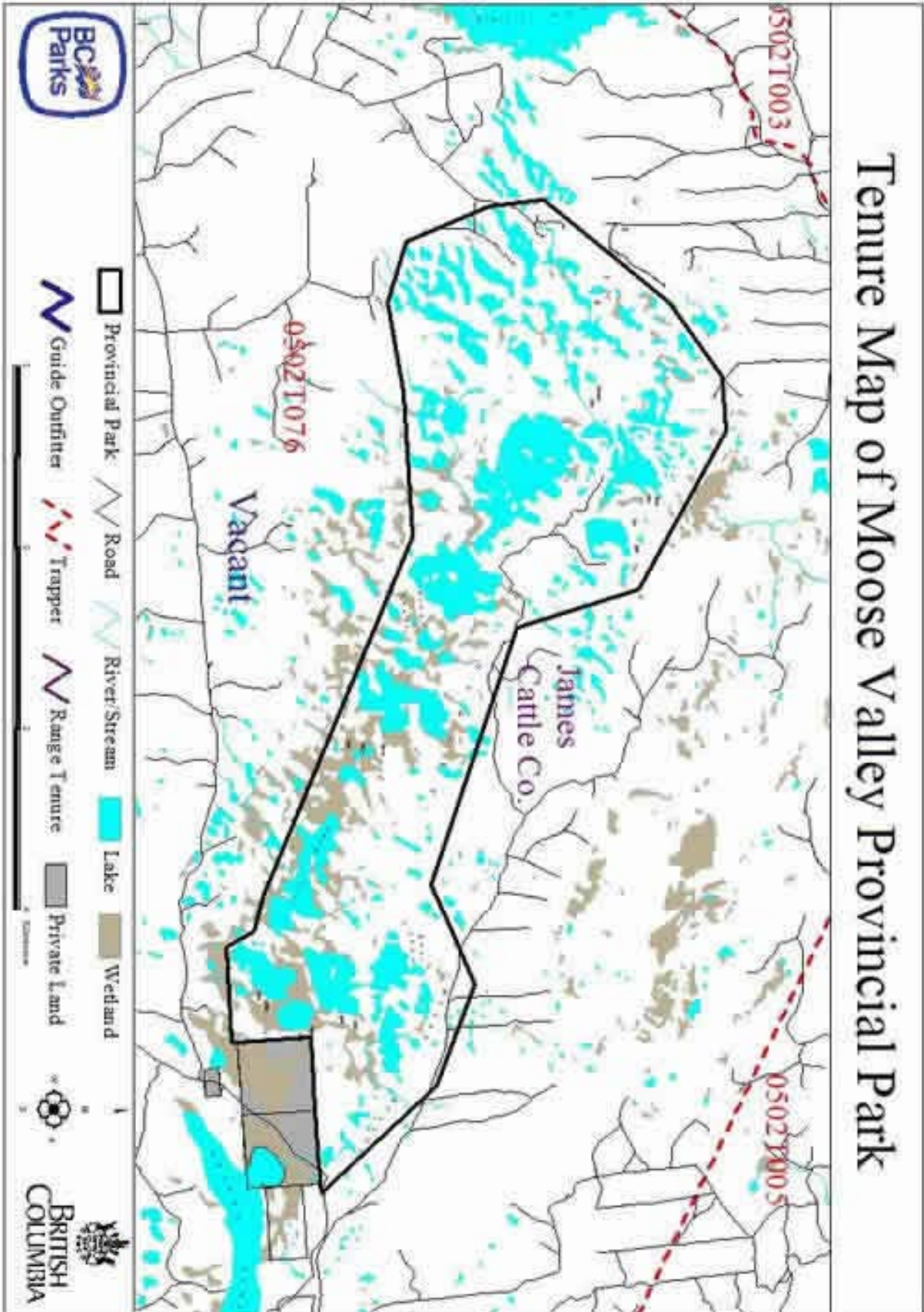
Environmental Stewardship Division does not require the Ministry of Forests and licensees to undertake silvicultural activities within the park boundary.

Cattle grazing occurred in and around Moose Valley Park for many years prior to the park's designation. Grazing activities will continue at October 1994 levels of Animal Unit Months.

Trapping and guiding activities are established uses within the park and operations will be managed in accordance with park management goals. In the case of trapping, if furbearer populations are under stress, Environmental Stewardship Division will work with the Fish and Wildlife Science and Allocation Section (Ministry of Water, Land and Air Protection) and the trapline holder to manage activities so that animal populations are not threatened.

NStQ trapped beaver in the Flat Lakes/Moose Valley area in the past. This was done to control the beaver population and the flooding of traditional hay meadows. NStQ traditional trap lines are located throughout the hay meadow/cabin complexes. Research into this area is underway.

Objectives	Strategies
<ul style="list-style-type: none"> ❑ Manage tenures to meet the conservation objectives of the park. ❑ Manage the park consistent with obligations under the CCLUP. ❑ Minimize the environmental and visual impacts of tenured activities within the park. ❑ Manage livestock activities to minimize impacts on water quality ❑ Protect traditional First Nations' trapping areas. 	<ul style="list-style-type: none"> ❑ Work within sub-regional land use planning processes for surrounding lands, and with other agencies to protect values in the park and adjacent to park boundaries. This includes minimizing impacts on scenic values, water and air quality and noise associated with activities such as logging. ❑ Logging roads not required for park management purposes will be deactivated. No silvicultural treatments will occur within the park boundary. ❑ Honor pre-existing backcountry recreation-related tenures and activities under park use permits. ❑ Work with the Ministry of Forests to manage grazing in the park. ❑ Work with the grazing tenure holder to adopt best practices for the protection of the riparian zone and water quality. ❑ Grazing activities will not be expanded from the October 1994 allotted Animal Unit Months (approximately 87 AUMs). ❑ Authorize current trapping and guide outfitting operations by issuing park use permits for activities and associated structures and camps. ❑ Trapping activities will be managed as per the BC Trappers Association Protocol Agreement (2002), related appendices and permits. ❑ Consider First Nations interests when tenures are renewed.



Adjacent Land Use

There are two private properties that are adjacent to the southeastern boundary of Moose Valley Park (District Lots 2152 and 113). They do not impede the current access to the park. The remainder of the land surrounding Moose Valley Park is crown land.

Objectives	Strategies
<ul style="list-style-type: none"> ❑ Inform adjacent landowners and land managers about park management issues. 	<ul style="list-style-type: none"> ❑ Ensure, through annual written communications, that adjacent landowners are aware of park management issues. ❑ Partner with Educo School to create opportunities for education (key interpretive messages to students) and monitoring (measuring the health of park ecosystems) to promote stewardship and understanding of park values to students.

3.3 Water

Moose Valley Park is comprised of a series of small lakes, wetlands and creeks. Generally, the water flows east toward Bridge Creek near 100 Mile House. This water flow increases the biodiversity of the area in both plant species and wetland habitats.

Objectives	Strategies
<ul style="list-style-type: none"> ❑ Maintain, and restore where appropriate, the quality and quantity of water resources in Moose Valley Park for their contribution to wetland habitats and the overall park ecosystem. 	<ul style="list-style-type: none"> ❑ Refer to tenures (Section 3.2.3), recreation (5.2) and communications (6.2) strategies for reducing impacts to water quality and quantity in the park. ❑ When managing water resources, consider First Nations use of aquatic plants.

3.4 Vegetation

Vegetation in Moose Valley Park is influenced by the glacier-formed depressions nestled within the dry, rolling landscape of the Fraser River Plateau. As a result of its kettled topography and flow-through watercourse, Moose Valley contains a very high density and diversity of wetlands.

Common wetland types include shallow open water, marshes and fens. Appendix B provides a detailed description of the wetland classes and types, as well as dominant vegetation, found in Moose Valley Park.

In natural ecosystems, fire, disease and insect infestations are fundamental disturbances that maintain ecosystem health and, as such, are generally allowed to continue within larger parks. However, because this park is small it must be managed in the context of the surrounding landscape to protect values inside and outside the park boundary.

Objectives	Strategies
<ul style="list-style-type: none"> ❑ Maintain natural plant communities for their inherent value and their 	<ul style="list-style-type: none"> ❑ Maintain the current <i>Initial Attack Fire Management Plan</i> for the Park. All fires will be

<p>contribution to wildlife habitat, biodiversity and visual esthetics.</p> <ul style="list-style-type: none"> ❑ Ascertain the diversity and relative importance of the wetland complexes within the larger landscape through low-impact studies and inventories. ❑ Manage wildfire and forest pests in the context of surrounding landscape objectives. ❑ Inventory and monitor vegetation values in the park, particularly in the areas of recreation use and related impacts. ❑ Protect and restore red listed plant species to the area. ❑ Work with NStQ to identify record and protect food, medicinal and resource plants, particularly where they are not readily available outside the park. 	<p>controlled in the park.</p> <ul style="list-style-type: none"> ❑ Maintain the current bark beetle management regime. Control insect infestations while they are still small and isolated through fall and burn technique. ❑ Assess, monitor and control noxious weeds through mechanical means or proven biological means, particularly in areas where weed establishment could have harmful effects on wildlife and livestock forage. ❑ Work in partnership with surrounding landowners, permit holders and volunteers to inventory and monitor vegetation values within the park, particularly in areas of recreational use and related impacts. ❑ Undertake BRIM (Backcountry Recreation Impact Monitoring) in recreationally impacted areas. ❑ Work with the NStQ to identify traditional use plant communities currently at risk. ❑ Involve NStQ in the management of Swamp Tea, Silverweed, Water Lilies and other plants identified as being of concern.
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3.5 Fish and Wildlife Management

Moose Valley Park is home to a number of wildlife species. The wetland communities provide excellent habitat for large mammals such as moose and mule deer as well as smaller mammals and waterfowl. Fish populations are limited to small non-game species.

Moose Valley Park encompasses important moose ranges, with its high summer habitat suitability and very high winter habitat suitability⁴. Mule deer summer range habitat is also rated high in the park, while winter range is limited by altitude and the availability of thermal cover and is rated low.

The Canada Land Inventory mapping system rates waterfowl habitat capability as moderate. The main limitations to the area are shallow, free flowing water and reduced marsh edges. These limitations impact feeding and nesting values. The area was noted to be important as a migration corridor stopover. Species such as loons, grebes, geese, mallards, and Blue-listed sandhill cranes, as well as other waterfowl, game birds and raptors use habitat in Moose Valley Park.

The forest-wetland matrix of the park is also important furbearer habitat. Species such as beaver, mink and muskrat use the area and are important to trapping activities that occur in the park.

⁴ Wildlife suitability mapping is interpretive mapping based on an overlay of site specific attributes (e.g. slope, aspect, dominant vegetation etc.) The combination of attributes (habitat features) is rated for overall habitat suitability for a specific species.

Moose Valley and Flat Lake Parks

Objectives	Strategies
<ul style="list-style-type: none"> ❑ Collaborate in identifying and conserving the natural diversity of wildlife species and populations within the park and over the landscape. ❑ Identify and protect rare, endangered, sensitive or vulnerable species and related habitat that may occur in the park. ❑ Monitor the impact of traditional, recreational and commercial uses on fish and wildlife species and habitat. ❑ Protect and maintain water quality for its contribution to fish and wildlife habitat within the park. ❑ Conserve and maintain natural fish populations and habitat within the park. ❑ Hunting will continue to be allowed within the park, including First Nations utilization of fish and wildlife, subject to meeting safety and conservation objectives. 	<ul style="list-style-type: none"> ❑ Work with the Ecosystems Section and Fish and Wildlife, Science and Allocation Section to develop a long-term wildlife management plan for the park. This plan should be consistent with larger management unit objectives. Key elements should include: <ul style="list-style-type: none"> - Inventory of fish populations, - Inventory of wildlife, especially those associated with wetland habitats such as amphibians and waterfowl, - Inventory of outstanding wetland-type habitats, - Inventory of rare and endangered species and populations, and - Strategies for minimizing impacts of invasive species on habitats. ❑ Consider opportunities and partnerships for research, inventory and monitoring programs. ❑ First Nations rights to continue hunting and trapping activities is guaranteed by this management plan. ❑ Allow non-motorized hunting activities to continue. ❑ Monitor and regulate hunting in conjunction with the Fish and Wildlife Science and Allocation Section to ensure healthy fish and wildlife populations are maintained. ❑ Where available, use Traditional Ecological Knowledge (TEK) in the management of natural values.

4.0 Cultural Heritage Management – Moose Valley Park

The area in which Moose Valley Park lies is of interest to a number of First Nations groups who have traditionally used, and continue to use, the area. Other than the preliminary information provided by the NStQ, there is a lack of public information on the cultural significance of the area. For the time being, and as more information becomes available, Environmental Stewardship Division will manage the park in a manner that is precautionary and sensitive to First Nations interests. Any future developments in the park will be subject to cultural heritage and archaeological assessment, which will be completed in collaboration with First Nations wherever possible. Any new information on the park encountered after the writing of the management plan will be considered in the management regime of the park. Park activities can be altered if impacts to cultural values are identified.

There are no sites identified through the Cultural Heritage Overview of the Cariboo Forest Region⁵.

Objectives	Strategies
<ul style="list-style-type: none"> ❑ Protect and manage important historical, cultural and archaeological resources, features and sites. ❑ Improve relationships and communications with those First Nations with asserted traditional territories in the park. ❑ Work with local residents and aboriginal communities to increase historical and cultural knowledge. ❑ Include interpretative information, including NStQ or other First Nations place names, where appropriate. 	<ul style="list-style-type: none"> ❑ Conduct reconnaissance work with First Nations groups prior to any developments (e.g. road improvements, trail relocation) to determine need for archaeological and cultural heritage assessments. (e.g. AIA's). ❑ Continue to work with First Nations to increase understanding of the values within the parks. Ensure sensitive information is handled respectfully and appropriately. ❑ Culturally Modified Trees (CMTs), including post-1846 CMTs, will be protected from cutting for any park management purpose. ❑ Alter location and intensity of recreational activities if there are impacts to cultural values. ❑ Work with local residents, agencies and organizations to increase knowledge of heritage values in the park. ❑ When available, use Traditional Ecological Knowledge (TEK) in the management of natural values.

⁵ Diana Alexander. 1997. A Cultural Heritage Overview of the Cariboo Forest Region. Prepared for Cariboo Forest Region, Ministry of Forests, Williams Lake, BC.

5.0 Recreation Management – Moose Valley Park

5.1 Introduction

This section describes the range of recreational opportunities in Moose Valley Park. It also deals with objectives and strategies for managing these activities into the future.

5.2 Recreation Opportunities and Facilities

Moose Valley Park provides an attractive setting for a variety of low-impact, non-motorized recreation opportunities. Some of the attributes that draw visitors to Moose Valley for recreation include natural beauty and tranquility, accessible wetland complexes and associated wildlife viewing, and a natural chain of small lakes that make the park a canoeing destination.

Recreational activities must be managed in a manner that is consistent with the roles and vision of the park; are compatible with Natural Environment zoning; are not detrimental to natural or cultural values; and are consistent with visitor expectations. Given the significant amount of motorized recreation in the park vicinity, Moose Valley Park will provide opportunities for visitors to enjoy a quiet, non-motorized wilderness experience.

Recreational activities in Moose Valley Park include: canoeing, swimming, camping, hiking, snow-shoeing, mountain biking, cultural and educational tours, untracked cross country skiing, hunting and nature appreciation. Commercial recreational activities include dog-sledding, aboriginal guiding and interpretive tours, and guided canoe tours. Overall, the area is mainly enjoyed for its relatively undeveloped, quiet, pocket wilderness environment.

There is a small campground and staging area on the north end of Marks Lake. This is the most common starting point for canoe trips as there is some parking available. There is a cabin on the northwest shore of Maitland Lake, used primarily in the fall and winter by recreationists. Informal camping also takes place on Long Lake and Canoe Lake.

Given the extensive marsh and fen wetland development around the open water, and the seasonal water level fluctuations, it is often difficult to navigate the entire chain of lakes by canoe/portage. Some trampling damage of wetland vegetation has occurred between the hardened shoreline and the open water in order to avoid wet sections of portages. Given the importance of this riparian vegetation to wildlife habitat (bird nesting, water purification etc), this plan will look at ways to minimize recreation impacts on the sensitive ecosystem. Silverweed, for example, may be damaged this way.

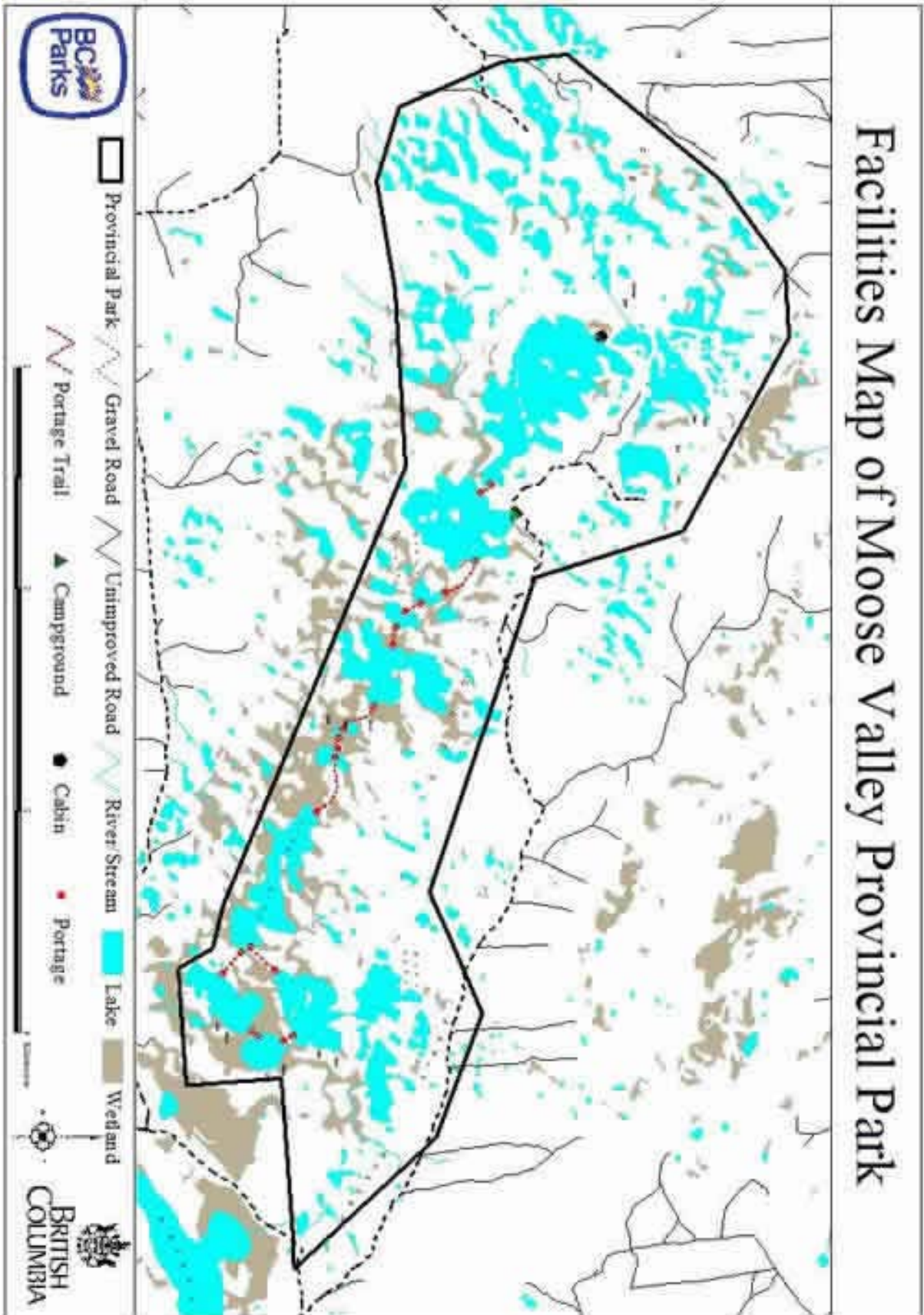
Objectives	Strategies
<ul style="list-style-type: none"> ❑ Maintain the “pocket wilderness” quality of the park while allowing for a range of low-impact, compatible public and commercial recreation uses. ❑ Ensure that public access to the parks is not pre-empted by commercial recreation 	<p><i>General</i></p> <ul style="list-style-type: none"> ❑ Enforce a pack-in / pack-out policy. Ensure that best-practices for human waste management are employed. ❑ Maintain closure of motorized recreation (snowmobile, ATV, powerboat, personal watercraft) in the park, except for public safety purposes and where authorized specifically in park use permits (e.g. trapline

<p>activities.</p> <ul style="list-style-type: none"> ❑ Provide a range of non-motorized activities that take their meaning from the natural environment. ❑ Minimize impacts of recreational activities on park values. ❑ Honour existing uses (uses present at the time of park designation), as specified in the CCLUP. ❑ Ensure that recreation information, developments and use are compatible with conservation values and recreational features. ❑ Monitor levels of recreation use. ❑ Maintain the cabin at Maitland Lake at a safe standard. 	<p>management).</p> <p><i>Canoe Route</i></p> <ul style="list-style-type: none"> ❑ Encourage use of canoe route during high water periods (late spring / early summer). ❑ In an effort to minimize damage and preserve sensitive marsh and fen edges, consider re-routing portages to higher ground where possible to avoid wetland trampling. Where alternative portages are not feasible, look at options for dock or boardwalk systems from the solid shore over the wetland vegetation to open water. ❑ Consider closing sensitive sections of the route during low water. ❑ Conduct Archaeological Impact Assessments for any ‘turf-turning’ recreational developments such as trails or campsites. <p><i>Camping</i></p> <ul style="list-style-type: none"> ❑ Consider identifying and hardening primitive campsites if damage occurs to minimize the footprint of several informal camping sites. ❑ Keep sites primitive to maintain the undeveloped wilderness atmosphere of the park. ❑ If the cabin at Maitland Lake is damaged beyond repair it will not be replaced or repaired. Likewise the cabin will be removed if it becomes a safety concern. <p><i>Mountain Biking</i></p> <ul style="list-style-type: none"> ❑ Mountain biking will be restricted to existing trails and roads and will be monitored for impacts. A commercial opportunity will be considered if it does not impact paddling experiences. <p><i>Monitoring Impacts</i></p> <ul style="list-style-type: none"> ❑ Monitor levels of use and impacts over time. Take remedial actions as required to protect park values. ❑ Implement BRIM (Backcountry Recreation Impact Monitoring) to assess affects of recreational activities on the natural ecosystem. ❑ Promote partnerships with recreational and other permit holders in the park in order to facilitate monitoring of recreational use.
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Commercial Recreation

The Cariboo-Chilcotin Land-Use Plan (CCLUP) states that opportunities for commercial tourism and recreation will be identified through the management planning process. As such, new recreation opportunities will be provided where compatible with the protection of natural and cultural values.

Objectives	Strategies
<ul style="list-style-type: none"> ❑ Maintain under park use permit all commercial outfitters operating in the park at the time of designation through the CCLUP. ❑ Determine levels of use and management practices for guiding outfitting activities that are consistent with park objectives and protect natural values. ❑ Provide opportunities for First Nations commercial tourism. 	<ul style="list-style-type: none"> ❑ Authorize, by park use permit, pre-existing commercial guide-outfitting and backcountry recreation opportunities at their historic levels of use. ❑ Monitor levels of use. Determine the potential for future commercial recreation operations by examining recreational impacts and the potential for adding further commercial operations over time. ❑ Prohibit commercial backcountry camp areas with permanent structures or facilities and promote use of wilderness-type camps. ❑ Consider the reconstruction of a pithouse somewhere in Moose Valley Park that could support a First Nations tourism opportunity.



6.0 Communications – Moose Valley Park

6.1 Introduction

Managing current information about Moose Valley Park is an important component of managing visitor safety, use and enjoyment. A suitable communications strategy can:

- Serve to set visitor expectations,
- Assist in planning and managing recreational uses,
- Promote backcountry ethics / etiquette and conservation of park resources, and
- Create an awareness of the unique, special and interesting natural and cultural features, habitats and ecosystems of the park.

Marketing or promotion of a park can affect the level of use and the type of visitor it attracts. Consequently, the information and promotion strategies must be consistent with the objectives and vision for the park. Management messages include promoting appropriate behaviour in wetland areas (e.g. no dredging or trail braiding, and travel not recommended at low water periods.)

The promotion and marketing of Moose Valley Park is currently limited to the BC Parks website and brochure/map available from the 100 Mile House Visitor Centre, and from brochure sponsors. Future promotion will be limited given the public’s desire to conserve the sensitive ecosystems, and maintain a wilderness setting and low numbers of visitors.

The natural, cultural and recreational values in the park have interpretation and educational potential. Interpretive information can build an appreciation for the features that this park has to offer and can promote stewardship and support for parks and their values.

6.2 Interpretive and Management Messages

Key management messages for Moose Valley Park include:

- The ecological importance of not disturbing wildlife, particularly nesting birds;
- Water quality preservation;
- Bear safety;
- Campfires are not encouraged in wilderness campsites; and
- Travel not recommended during low water periods in order to prevent damage caused by dredging.
- Avoid trail braiding during high water periods.

Important Interpretation messages for Moose Valley Park include:

- First Nations culture;
- The importance of the ecological values of wetland complexes;
- The formation of the area by glacial processes; and
- History of the canoe route, developed by Stuart Maitland and youth crew.

Objectives	Strategies
<ul style="list-style-type: none"> <input type="checkbox"/> Ensure that public information about Moose Valley Park is consistent with the park’s vision and roles. <input type="checkbox"/> Provide accurate and appropriate 	<p><i>Park Management</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Work with government agencies, commercial operators and tourism associations or groups to portray the park in a manner that encourages the

Moose Valley and Flat Lake Parks

<p>information for low use and low impact recreation.</p> <ul style="list-style-type: none">❑ Promote the role of the park in protecting important wetland ecosystems and associated habitats and species.❑ Promote backcountry ethics and stewardship for Moose Valley Park and its values.❑ Encourage visitor appreciation and understanding of the natural and cultural values of the park.	<p>awareness of the sensitivities of the area to increased visitation.</p> <ul style="list-style-type: none">❑ Public (website) information should warn visitors of the backcountry nature of the park, its sensitivities and importance in protecting wetland ecosystems; and the minimal facilities and services available.❑ Improve web page information on the natural values of the park and wilderness ethics.❑ Provide detailed directions to the park on the website.❑ Using the website, provide annual updates on park management activities in the park. <p><i>Interpretation</i></p> <ul style="list-style-type: none">❑ Keep information on the park focused on the sensitive nature of the wetland ecosystems and the importance of associated habitats to wildlife.❑ Work with commercial operators to pass on key interpretive messages to clients.❑ Work with community groups, First Nations, schools and businesses to develop materials that meet interpretive strategies if use increases such that these are needed.
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7.0 Natural Values Management – Flat Lake Park

7.1 Introduction

This section of this management plan provides a brief description of the primary natural attributes of Flat Lake Park. This section sets out resource management objectives and strategies to protect natural features and processes.

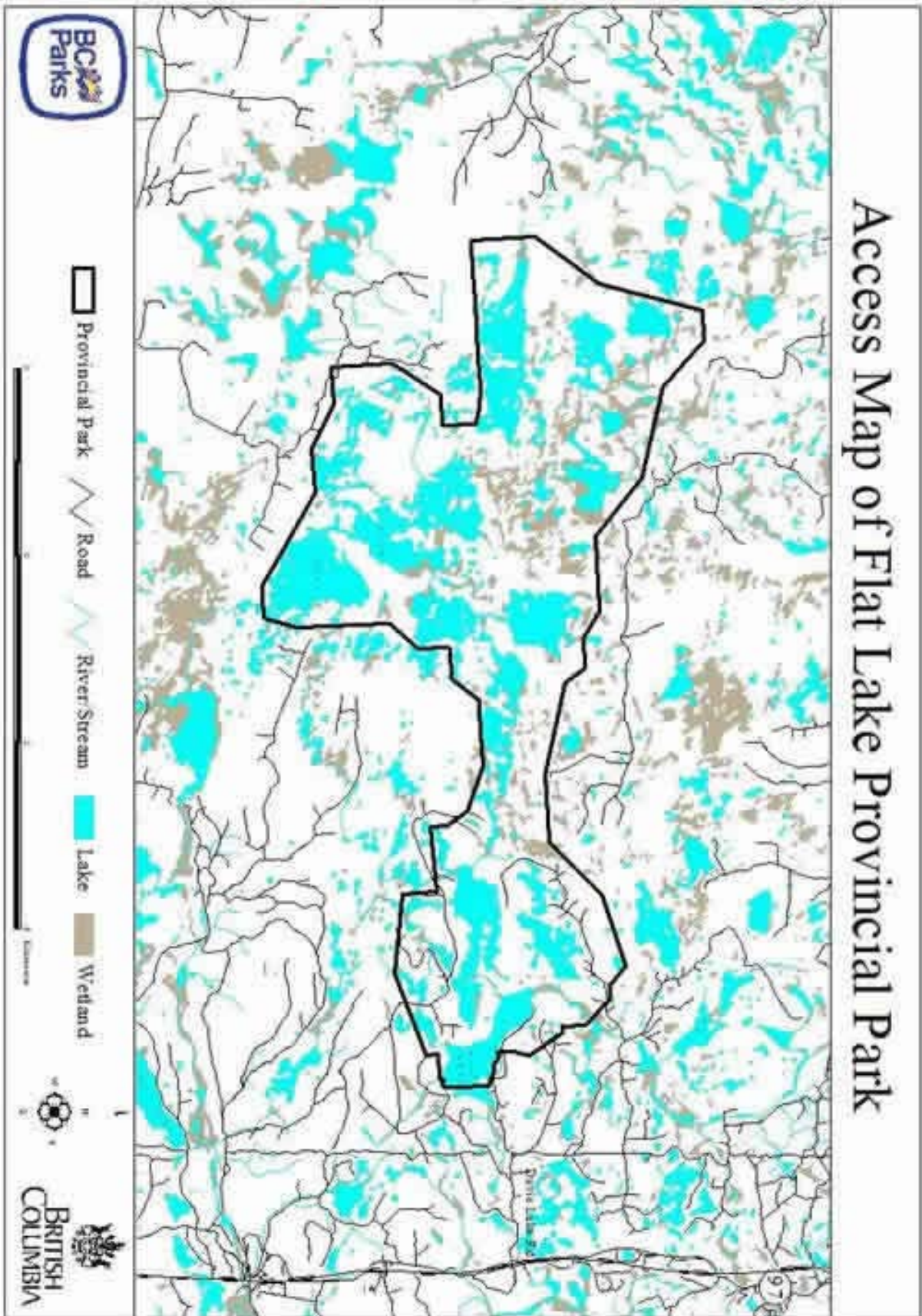
7.2 Land Uses, Tenures and Interests

Access Management

Access to Flat Lake Park is gained from Davis Lake Road, west off Highway 97 near the Begbie Summit south of 100 Mile House. Currently, the chain of lakes is best accessed via forest service roads to Lake #2. There is no signage to direct visitors to the park.

When Flat Lake Park was created through recommendations of the Cariboo-Chilcotin Land Use Plan, the boundary did not accommodate the need to provide long term public access to the park. See Appendix A for a recommended boundary change to ensure long term access is provided.

Objectives	Strategies
<ul style="list-style-type: none"> ❑ Create a vehicle access point to the east shore of Davis Lake. ❑ Maintain minimal signage to Flat Lake Park. ❑ Identify and protect aboriginal trails. 	<ul style="list-style-type: none"> ❑ Pursue a map reserve (Use, Recreation and Enjoyment of the Public) for creating a vehicle access to the east shore of Davis Lake. ❑ Continue to use access to second lake until map Reserve/UREP is available. ❑ Once Davis Lake property is acquired, remove berm and provide informal access to Davis Lake. Remove reference to second lake. ❑ In the long term, develop improved access to Davis Lake for Day Use only. ❑ No directional highway signs to the park will be erected. ❑ Sign only the final turn off from Davis Lake road to the park. Once new access point to Davis Lake is established, sign landing as access to park. Until Davis Lake access is established, temporarily sign access to park at second lake. ❑ Complete, with First Nations, an inventory of aboriginal trails. Interpret, where appropriate, with First Nations. ❑ Pursue boundary changes to ensure long term access is provided.



Existing Tenures, Alienations and Encumbrances

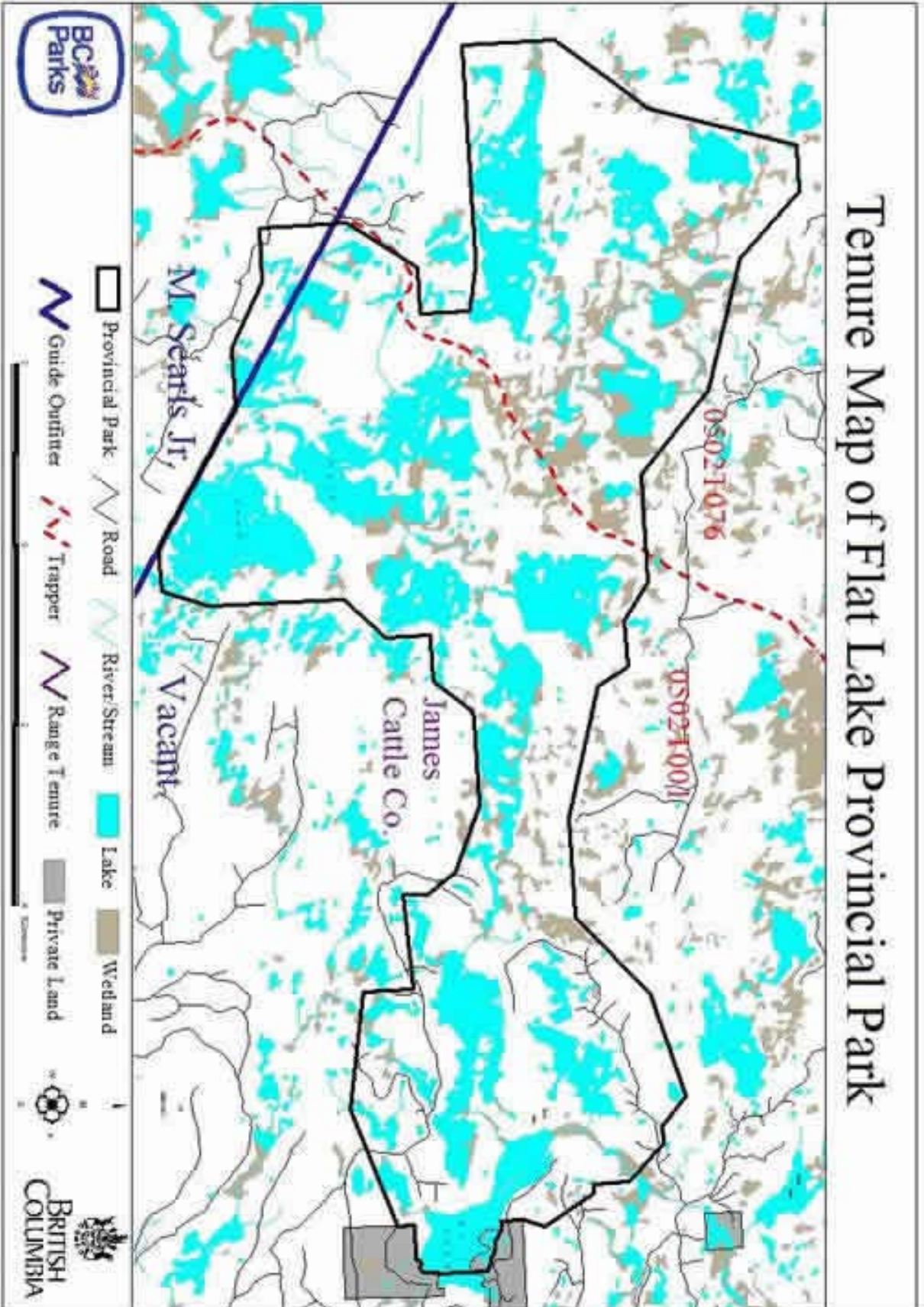
A number of activities have taken place in the area of the park prior to its designation. These activities require issuance of tenure by the Crown. Those activities include livestock grazing, water use and recreational guiding. These activities will be allowed to continue under the *Park Act* and provisions of the CCLUP. Trapping activities in the park, which are a pre-existing tenure, require a park use permit.

Some previously logged areas in Flat Lake Park (harvested prior to park designation in 1995) fall within the park boundary. In order for the natural process of succession to occur, Environmental Stewardship Division does not require the Ministry of Forests and licensees to undertake silvicultural activities within the park boundary.

Cattle grazing occurred in and around Flat Lake Park for many years prior to the park’s designation. Grazing activities will continue at October 1994 levels of Animal Unit Months (AUMs). The estimated use within Flat Lake Park is 640 AUMs.

Trapping and guiding activities are established uses within the park and operations will be managed in accordance with park management goals. In the case of trapping, if furbearer populations are under stress, Environmental Stewardship Division will work with the Fish and Wildlife, Science and Allocation Section (Ministry of Water, Land and Air Protection) and the trapline holder to manage activities so that animal populations are not threatened.

Objectives	Strategies
<ul style="list-style-type: none"> ❑ Manage tenures to meet the objectives of the park. ❑ Manage the park consistent with obligations under the CCLUP. ❑ Minimize the environmental and visual impacts of tenured activities. ❑ Manage livestock activities to minimize impacts on water quality ❑ Protect traditional First Nations’ trapping areas. 	<ul style="list-style-type: none"> ❑ Work within sub-regional land use planning processes for surrounding lands, and with other agencies to protect values in the park and adjacent to park boundaries. This includes minimizing impacts on scenic values, water and air quality and noise associated with activities such as logging. ❑ Logging roads not required for park management purposes will be deactivated. ❑ Work with the Ministry of Forests to manage grazing in the park. ❑ Work with the grazing tenure holder to adopt best practices for the protection of the riparian zone and water quality. ❑ Grazing activities will not be expanded from the October 1994 allotted Animal Unit Months (approximately 640 AUMs). ❑ Authorize current trapping and guide-outfitting operations by issuing park use permits for activities. ❑ Trapping activities will be managed as per the BC Trappers Association Protocol Agreement (2002). ❑ Consider First Nation interests when renewing tenures.



Adjacent Land Use

Forestry activity surrounds much of Flat Lake Park. There are also two private properties adjacent to the park boundary on Davis Lake.

Objectives	Strategies
<ul style="list-style-type: none"> ❑ Discuss park management issues with adjacent land owners and land managers. 	<ul style="list-style-type: none"> ❑ Ensure, through annual written communications, that adjacent land owners and land managers are aware of park management issues.

7.3 Water

Flat Lake Park is comprised of a series of small lakes, wetlands and creeks. Flat Lake is a basin with little flow-through. Water levels fluctuate based on snowmelt and the water is generally captured in lakes and absorbed into the ground. Water bodies in Flat Lake tend to be alkaline because of the basin and groundwater recharge.

There is one water license that falls inside the park. There is a dam at the outlet of Flat Lake (part of a series of dams between Flat Lake, Bullock Lake and Bishop Lake used for irrigation south of the park). Flat Lake is a point of storage for this irrigation system.

Objectives	Strategies
<ul style="list-style-type: none"> ❑ Maintain the quality and quantity of water resources in Flat Lake Park for their contribution to wetland habitats and the overall park ecosystem. ❑ Manage grazing activities to minimize impacts on water quality. ❑ Investigate the purpose and current use of water control structures. 	<ul style="list-style-type: none"> ❑ Refer to tenures (section 7.2.2), recreation (9.2) and communications (10.2) strategies for reducing impacts to water quality and quantity in the park. ❑ Work with the water license holder to determine the nature and condition of the water control structure on Flat Lake. Take appropriate course of action to meet safety and management objectives. ❑ When managing water resources, consider First Nations use of aquatic plants.

7.4 Vegetation

Vegetation in Flat Lake Park is influenced by the glacier-formed wetlands nestled within the dry, rolling landscape of the Fraser River Plateau. The area of Flat Lake Park itself is within a basin with less water flow-through than Moose Valley.

Appendix B provides a detailed description of the wetland classes and types, as well as the dominant vegetation found in Flat Lake Park.

In natural ecosystems, fire, disease and insect infestations are fundamental disturbances that maintain ecosystem health and, as such, are generally allowed to continue within larger parks. However, because this park is small it must be managed in the context of the surrounding landscape to protect values inside and outside the park boundary.

Objectives	Strategies
<ul style="list-style-type: none"> ❑ Maintain natural plant communities for their inherent value and their contribution to wildlife habitat, biodiversity and visual esthetics. ❑ Ascertain the diversity and relative importance of the wetland complexes within the larger landscape through low-impact studies and inventories. ❑ Manage wildfire and forest pests in the context of surrounding landscape objectives. ❑ Inventory and monitor vegetation values in the park, particularly in the areas of recreation use and related impacts. ❑ Work with NStQ to identify, record, and protect food, medicinal and resource plants, particularly where they are not readily available outside the park. 	<ul style="list-style-type: none"> ❑ Maintain the current <i>Initial Attack Fire Management Plan</i> for the park. All fires will be controlled in the park. ❑ Maintain the current bark beetle management regime. Control insect infestations while they are still small and isolated through fall and burn technique. ❑ Assess, monitor and control noxious weeds through mechanical means or proven biological means, particularly in areas where weed establishment could have harmful effects on wildlife and livestock forage. ❑ Work in partnership with surrounding landowners, permit holders and volunteers to inventory and monitor vegetation values within the park, particularly in areas of recreational use and related impacts. ❑ Undertake BRIM (Backcountry Recreation Impact Monitoring) in recreationally impacted areas. ❑ Work with NStQ to identify traditional use plant communities currently at risk. ❑ Involve NStQ in the management of Swamp Tea, Silverweed, Water Lilies and other plants identified as being of concern.

7.5 Fish and Wildlife Management

Flat Lake Park is home to a number of wildlife species. The wetland communities provide excellent habitat for large mammals such as moose and mule deer as well as smaller furbearers and waterfowl. Fish populations are limited to small, non-game species.

Flat Lake Park encompasses critical habitat for moose with its high summer habitat capability and very high winter habitat capability⁶. Mule deer summer range habitat is also rated high in the park, while winter range is limited by the availability of thermal cover and is rated low.

The Canada Land Inventory mapping system rates waterfowl habitat capability as moderate. The main limitations to the area are shallow, free flowing water and reduced marsh edges. These limitations impact feeding and nesting values. The area was noted to be important as a migration corridor stopover. Species such as loons, grebes, geese, scoters, mallards, and blue-listed sandhill cranes as well as other waterfowl, game birds and raptors use habitat in Flat Lake Park.

⁶ Wildlife suitability mapping is interpretive mapping based on an overlay of site specific attributes (e.g. slope, aspect, dominant vegetation etc.) The combination of attributes (habitat features) is rated for overall habitat suitability for a specific species.

Moose Valley and Flat Lake Parks

The forest-wetland matrix of the park is also important furbearer habitat. Species such as beaver, mink and muskrat use the area and are important to trapping activities that occur in the park.

Feral horses are known to inhabit the area in and around Flat Lake Park. Environmental Stewardship Division conservation program policy regarding non-native species states: *Exotic or non-native wildlife species will be managed or controlled as necessary to protect, and without jeopardizing, ecosystem health and biodiversity.*

Objectives	Strategies
<ul style="list-style-type: none"> ❑ Collaborate in identifying and conserving the natural diversity of wildlife species and populations within the park and over the landscape. ❑ Identify and protect rare, endangered, sensitive or vulnerable species and related habitat that may occur in the park. ❑ Minimize the impact of traditional, recreational and commercial uses on fish and wildlife species and habitat. ❑ Protect and maintain water quality for its contribution to fish and wildlife habitat within the park. ❑ Conserve and maintain natural fish populations and habitat within the park. ❑ Hunting will continue to be allowed within the park. 	<ul style="list-style-type: none"> ❑ Work with the Ecosystems Section and Fish and Wildlife, Science and Allocation Section to develop a long-term wildlife management plan for the park. This plan should be consistent with larger management unit objectives. Key elements should include: <ul style="list-style-type: none"> - Inventory of fish populations, - Inventory of wildlife, especially those associated with wetland habitats such as amphibians and waterfowl, - inventory of outstanding wetland-type habitats, - Inventory of rare and endangered species and populations, and - Strategies for minimizing impacts of invasive species on habitats. - Inventory feral horse population. ❑ Consider opportunities and partnerships for research, inventory and monitoring programs. ❑ Work with Ministry of Forests Range staff to control feral horses in context with larger landscape objectives. ❑ Allow non-motorized hunting activities to continue. ❑ Monitor and regulate hunting in conjunction with the Fish and Wildlife Science and Allocation Branch to ensure healthy fish and wildlife populations are maintained. ❑ Where available, use Traditional Ecological Knowledge (TEK) in the management of natural values.

8.0 Cultural Heritage Management – Flat Lake

The area in which Flat Lake Park lies is of interest to a number of First Nations groups who have traditionally used, and continue to use, the area. Other than the preliminary information provided by the NStQ, there is a lack of public information on the cultural significance of the area. For the time being, and as more information becomes available, Environmental Stewardship Division will manage the park in a manner that is precautionary and sensitive to First Nations interests. Any future developments in the park will be subject to cultural heritage and archaeological assessment, which will be completed in collaboration with First Nations wherever possible. Any new information on the park encountered after the writing of the management plan will be considered in the management regime of the park. Park activities can be altered if impacts to cultural values are identified.

There are no sites identified through the Cultural Heritage Overview of the Cariboo Forest Region⁷.

Objectives	Strategies
<ul style="list-style-type: none"> ❑ Protect and manage important historical, cultural and archaeological resources, features and sites. ❑ Improve relationships and communications with those First Nations with asserted traditional territories in the park. ❑ Work with local residents and aboriginal communities to increase historical and cultural knowledge. ❑ Include interpretive information, including NStQ or other First Nations place names, where appropriate. 	<ul style="list-style-type: none"> ❑ Conduct reconnaissance work with First Nations groups prior to any developments (e.g. road improvements, trail relocation) to determine need for archaeological and cultural heritage assessments. (e.g. AIA's). ❑ Continue to work with First Nations to increase understanding of the values within the park. Ensure sensitive information is handled respectfully and appropriately. ❑ Culturally Modified Trees (CMTs), including post-1846 CMTs, will be protected from cutting for any park management purpose. ❑ Alter location and intensity of recreational activities if there are impacts to cultural values. ❑ Work with local residents, agencies and organizations to increase knowledge of heritage values in the park. ❑ When available, use Traditional Ecological Knowledge (TEK) in the management of natural values.

⁷ Diana Alexander. 1997. A Cultural Heritage Overview of the Cariboo Forest Region. Prepared for Cariboo Forest Region, Ministry of Forests, Williams Lake, BC.

9.0 Recreation Management – Flat Lake Park

9.1 Introduction

This section describes the range of recreational opportunities in Flat Lake Park. It also deals with objectives and strategies for managing these activities into the future.

9.2 Outdoor Recreation Opportunities and Facilities

Flat Lake Park provides an attractive setting for a variety of low-impact, non-motorized recreation opportunities. Some of the attributes that draw visitors to Flat Lake Park for recreation include natural beauty and tranquility, accessible wetland complexes and associated wildlife viewing, and a natural chain of lakes that make the park a prime, multi-day canoeing destination.

Recreational activities must be managed in this small park so that they are consistent with the roles and vision of the park; are compatible with Natural Environment zoning; are not detrimental to natural or cultural values; and are consistent with visitor expectations. Given the significant amount of motorized recreation in the area, Flat Lake Park will provide opportunities for visitors to enjoy a quiet, non-motorized wilderness experience.

Recreational activities in Flat Lake Park include: canoeing, swimming, camping, hiking, snowshoeing, mountain biking, cultural and educational tours, untracked cross-country skiing, hunting and nature appreciation. There are currently no commercial recreational activities in this park, but aboriginal guiding and interpretive tours would be considered appropriate. Overall, the area is mainly enjoyed for its relatively undeveloped, quiet, pocket wilderness environment.

An established, but unmarked portage system guides canoeists through the park. Access to Flat Lake proper is, at this point, difficult to locate and maneuver due to the tall, emergent lake vegetation, topography and distance between lakes. Alternative portages to Flat Lake are being explored. There are no formal staging areas, campsite developments, cabins or outhouses at Flat Lake Park.

Significant increases in levels of use may impact the wetland ecosystem of the park. Given the importance of the wetland vegetation communities to wildlife habitat (bird nesting, water purification etc), this plan will look at proactive opportunities to involve park users in monitoring and reducing recreational impacts.

Objectives	Strategies
<ul style="list-style-type: none"> ❑ Maintain the “pocket wilderness” quality of the park while allowing for a range of low-impact, compatible public and commercial recreation uses. ❑ Ensure that public access to the park is not pre-empted by commercial recreation activities. 	<p><i>General</i></p> <ul style="list-style-type: none"> ❑ Enforce a pack-in/pack-out policy. Ensure that best-practices for human waste management are employed. ❑ Maintain closure of motorized recreation (snowmobile, ATV, powerboat, personal watercraft) in the park, except for public safety purposes and where authorized specifically in park

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<ul style="list-style-type: none"> ❑ Provide a range of recreation opportunities that take their meaning from the natural environment. ❑ Minimize impacts of recreational activities on park values. ❑ Honour existing uses (uses present at the time of park designation), as specified in the CCLUP. ❑ Ensure that recreation information, developments and use are compatible with conservation values and recreational features. ❑ Monitor levels of recreational use. 	<p>use permits (e.g. trapline management).</p> <p><i>Canoe Route</i></p> <ul style="list-style-type: none"> ❑ Develop a detailed map of the Flat Lake canoe chain, with portages, to be posted on the website. ❑ Consider an alternate route into Flat Lake (proper). Expand the system to include portages to more lakes in the west end of the park. <p><i>Camping</i></p> <ul style="list-style-type: none"> ❑ Consider identifying and hardening primitive campsites if damage occurs to minimize the footprint of several informal camping sites. ❑ Keep sites primitive to maintain the undeveloped wilderness atmosphere of the park. <p><i>Mountain Biking</i></p> <ul style="list-style-type: none"> ❑ Mountain biking will be restricted to existing trails and roads and will be monitored for impacts. A commercial opportunity will be considered if it does not impact paddling experiences. <p><i>Monitoring Impacts</i></p> <ul style="list-style-type: none"> ❑ Monitor use levels and impacts over time and take remedial actions as required to protect park values. ❑ Implement BRIM (Backcountry Recreational Impact Monitoring) to assess affects of recreational activities on the ecosystem. ❑ Promote partnerships with recreational and other permit holders in the park in order to facilitate monitoring of recreational use.
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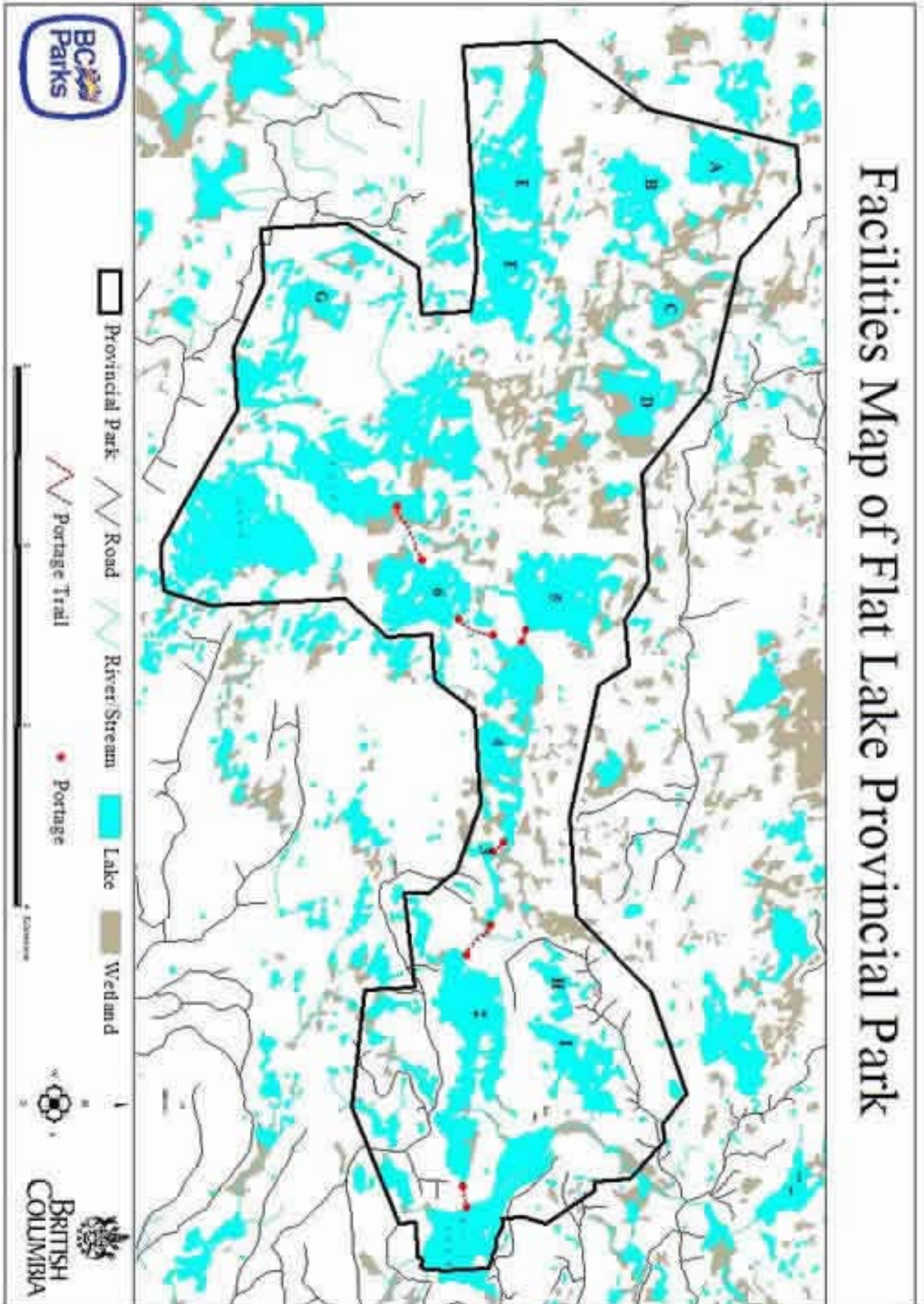
Commercial Recreation Opportunities

The Cariboo-Chilcotin Land-Use Plan (CCLUP) states that opportunities for commercial tourism and recreation will be identified through the management planning process. As such, new commercial recreation opportunities will be provided where compatible with the protection of the park's ecological values.

Currently (as of April 2002) there are no commercial operators in Flat Lake Park. However, there may be potential for commercial tourism opportunities in the park. These may include, but are not limited to, guided canoe or skiing trips. New commercial opportunities will be evaluated based on their compatibility with the park's objectives and vision, and will be accommodated, providing natural and cultural values are not compromised.

Moose Valley and Flat Lake Parks

Objectives	Strategies
<ul style="list-style-type: none"> ❑ Determine levels of use and management practices for guiding outfitting activities that are consistent with park objectives and protect natural values. ❑ Consider proposals for new commercial tourism operations. ❑ Provide opportunities for First Nations commercial tourism. 	<ul style="list-style-type: none"> ❑ Monitor levels of backcountry use. Determine the potential for future commercial recreation operations by examining recreational impacts and the potential for adding further commercial operations over time. ❑ Prohibit commercial backcountry camp areas with permanent structures or facilities. Promote wilderness-type camps. ❑ Evaluate new commercial tourism operations on their compatibility with the park’s vision and ensure the protection of natural and cultural values.



10.0 Communications – Flat Lake

10.1 Introduction

Managing current information about the Flat Lake Park is an important component of managing visitor safety, use and enjoyment. Information management can:

- Serve to set visitor expectations,
- Assist in planning and managing recreational uses,
- Promote backcountry ethics / etiquette and conservation of park resources, and
- Create an awareness of the unique, special and interesting natural and cultural features, habitats and ecosystems of the park.

Marketing or promotion of a park can affect the level of use and the type of visitor it attracts. Consequently, the information and promotion strategies must be consistent with the objectives and vision for the park.

The promotion and marketing of Flat Lake Park is currently limited to the BC Parks website. Future promotion will be limited given the public’s desire to conserve the sensitive ecosystems, and maintain a wilderness setting and low numbers of visitors. However, in an effort to focus visitor use at Flat Lake (thus easing pressure on Moose Valley Park’s sensitive ecology) a greater effort will be made to produce a map / brochure of the park and enhance website information.

The natural, cultural and recreational values in Flat Lake Park have interpretation and educational potential. Interpretive information can build an appreciation for the features that this park has to offer and can promote stewardship and support for parks and their values.

10.2 Interpretive and Management Messages

Important interpretation messages for Flat Lake Park include:

- Wetland complexes and their ecological values;
- First Nations culture;
- Describe the variety of bird species found in the park, appropriate behaviour around birds and in nesting areas; and
- Interpret formation of the area by glacial processes.

Key management messages for Flat Lake Park include:

- The importance of not disturbing wildlife, particularly nesting birds;
- Water quality preservation;
- Bear safety,
- Campfires are not encouraged in wilderness campsites,
- Travel not recommended during low water periods in order to prevent damage caused by dredging; and
- Avoid trail braiding during high water periods.

Objectives	Strategies
<input type="checkbox"/> Ensure that public information about Flat Lake Park is consistent with the park’s vision and roles.	<i>Park Management</i> <input type="checkbox"/> Work with government agencies, commercial operators and tourism associations or groups to

Moose Valley and Flat Lake Parks

<ul style="list-style-type: none"> ❑ Provide accurate and appropriate information for low use and low impact recreation. ❑ Promote the role of the park in protecting important wetland ecosystems and associated habitats and species, while providing outstanding recreational opportunities such as canoeing. ❑ Flat Lake should provide the recreational focus between Moose Valley and Flat Lake in co-management strategies. ❑ Promote backcountry ethics and stewardship for Flat Lake Park and its values. ❑ Encourage visitor appreciation and understanding of the natural and cultural values of the park. 	<p>portray the park in a manner that encourages the awareness of the sensitivities of the area to increased visitation.</p> <ul style="list-style-type: none"> ❑ Increase the current level of promotion of the park through enhancement of website information. ❑ Marketing information should warn visitors of the backcountry nature of the park and the minimal facilities and services available. ❑ Update the Flat Lake Park web page to include a map, directions to the park, and general information on the canoe route and facilities. ❑ Develop a map and brochure of the park depicting portage routes, potential campsites and information on wilderness ethics for the park. <p><i>Interpretation</i></p> <ul style="list-style-type: none"> ❑ Improve web page information on the natural values of the park and wilderness ethics. ❑ Using the website, provide annual updates on park management activities in the park. ❑ Work with commercial operators to pass on key interpretive messages to clients. ❑ Work with community groups, First Nations, schools and businesses to develop materials that meet interpretive strategies as use increases and are required.
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11.0 Plan Implementation

The implementation of strategies in this management plan is dependent on the availability of staff and resources within the Environmental Stewardship Division. Approval of this plan does not constitute automatic approval of funding for implementation. NStQ will be involved, where appropriate and subject to the availability of staff and resources, in the implementation of the management plan.

11.1 High Priority Strategies

	Moose Valley Park	Flat Lake Park
Natural Values Management	<ul style="list-style-type: none"> Mark road as ‘Dead End’ beyond the campground / staging area. Do not improve road beyond this point. 	<ul style="list-style-type: none"> Pursue a map reserve for creating a vehicle access to the east shore of Davis Lake. Work with the water license holder to ensure the dam structure on Flat Lake meets safety and management objectives.
	<ul style="list-style-type: none"> Work within sub-regional land use planning processes for surrounding lands, and with other agencies to protect values in the parks and adjacent to park boundaries. Consider First Nations Land Use Planning Processes and recommendations Authorize current trapping and guide outfitting operations by issuing park use permits for activities and associated structures and camps, subject to identified park values. 	
Recreation Management	<ul style="list-style-type: none"> Consider re-routing portages and options for dock or boardwalk systems to avoid wetland trampling. Consider closing sensitive sections of the route during low water. Authorize, by park use permit, pre-existing commercial guide-outfitting and backcountry recreation opportunities at their historic levels of use, subject to a review to ensure that these use levels do not negatively affect cultural and natural values. 	
Communications	<ul style="list-style-type: none"> Improve web page information on the natural values of the park and wilderness ethics. 	<ul style="list-style-type: none"> Update the Flat Lake web page to include a map, directions to the park, and general information on the canoe route and facilities.

11.2 Task or Project Strategies

	Moose Valley Park	Flat Lake Park
Natural Values Management	<ul style="list-style-type: none"> Investigate access points to Long Lake and Deer Lake. Partner with Educo School to create opportunities for education and monitoring to promote stewardship and understanding of park values to students. Pursue boundary changes to eliminate Forest service roads, and create more manageable boundaries. 	<ul style="list-style-type: none"> Once Davis Lake property is acquired, remove berm and provide informal access to Davis Lake.
	<ul style="list-style-type: none"> Assess, monitor and control noxious weeds through mechanical means or proven biological means. Work in partnership with surrounding landowners, First Nations, permit holders and volunteers to inventory and monitor vegetation values within the parks. Undertake BRIM (Backcountry Recreation Impact Monitoring) in recreationally impacted areas. Work with the Ecosystems Section and Fish and Wildlife, Science and Allocation Section to develop a long-term wildlife management plan for both parks. This plan should be consistent with larger management unit objectives. Consider opportunities and partnerships for research, inventory and monitoring programs. 	
Cultural Values Management	<ul style="list-style-type: none"> Conduct reconnaissance work with First Nations groups prior to any developments to determine need for archaeological and cultural heritage assessments. (e.g. AIA's). 	
Recreation Management		<ul style="list-style-type: none"> Consider an alternate route into Flat Lake (proper). Expand the system to include portages to more lakes in the west end of the park.
	<ul style="list-style-type: none"> Consider identifying and hardening primitive campsites if/as use increases in order to minimize the footprint of informal camping sites. Promote partnerships with recreational and other permit holders in the parks in order to facilitate monitoring of recreational use. 	

Moose Valley and Flat Lake Parks

Communications	<ul style="list-style-type: none"> Keep information on the park focused on the sensitive nature of the wetland ecosystems and the importance of associated habitats to wildlife. 	<ul style="list-style-type: none"> Increase the current level of promotion of the park through enhancement of website information. Develop a map and brochure of the park depicting portage routes, potential campsites and information on wilderness ethics for the park. Improve web page information on the natural values of the park and wilderness ethics.
	<ul style="list-style-type: none"> Work with government agencies, First Nations, commercial operators and tourism associations or groups to portray the park in a manner that encourages the awareness of the sensitivities of the area to increased visitation. Work with community groups, schools and businesses to develop materials that meet interpretive strategies if use increases such that these are needed. 	

11.3 Ongoing and Monitoring Strategies

	Moose Valley Park	Flat Lake Park
Natural Values Management	<ul style="list-style-type: none"> Work with the Forest Service and licensees to maintain the access road at its current (2002) condition. Honour pre-existing backcountry recreation-related tenures and activities under park use permits. 	<ul style="list-style-type: none"> Developed improved access to Davis Lake (Day Use only).
	<ul style="list-style-type: none"> Work with the Ministry of Forests to manage grazing in the parks. Work with the grazing tenure holder to adopt best practices for the protection of the riparian zone and water quality. Ensure, through written communications, that adjacent landowners are aware of park management issues. Monitor and regulate hunting in conjunction with the Fish and Wildlife Science and Allocation Section. When available, use Traditional Ecological Knowledge (TEK) in the management of natural values. 	

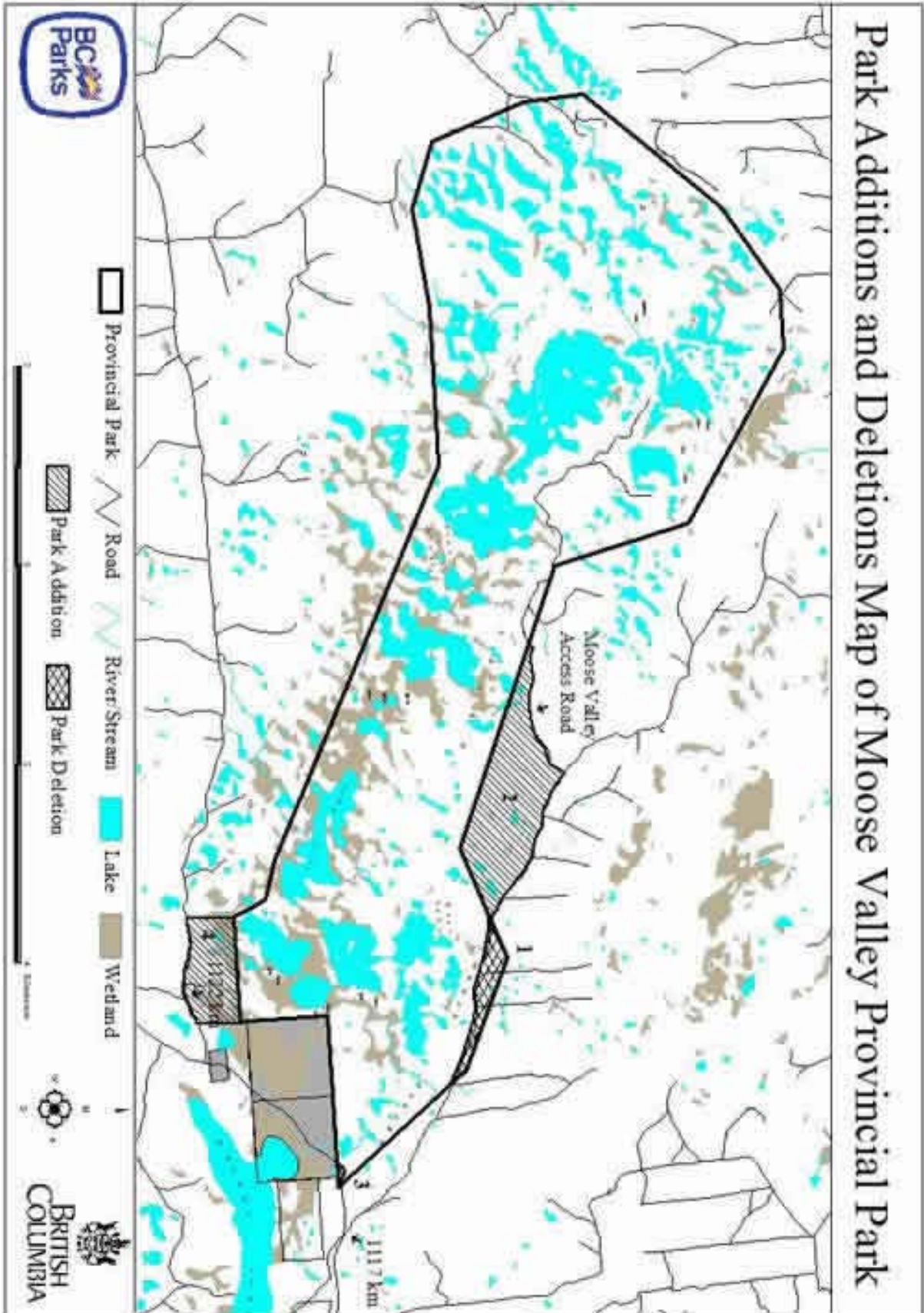
Moose Valley and Flat Lake Parks

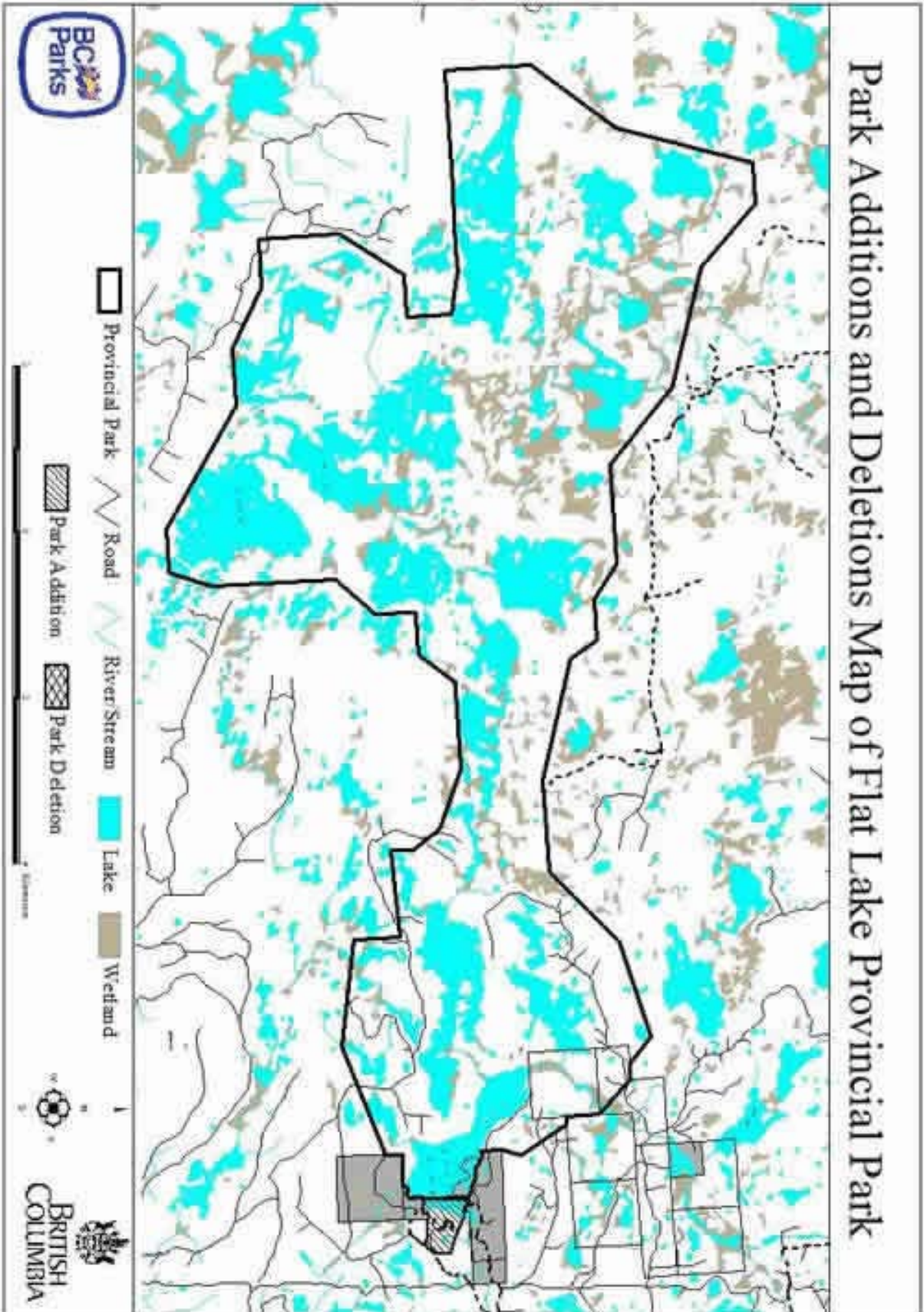
Cultural Values Management	<ul style="list-style-type: none"> • Continue to work with First Nations to increase understanding of the values within the parks. Ensure sensitive information is handled respectfully and appropriately. • Culturally Modified Trees (CMTs), including post-1846 CMTs, will be protected from cutting for any park management purpose. • Alter location and intensity of recreational activities if there are impacts to cultural values. • Work with local residents, First Nations, agencies and organizations to increase knowledge of heritage values in the parks. 	
Recreation Management	<ul style="list-style-type: none"> • Encourage use of canoe route during high water periods (late spring / early summer). 	<ul style="list-style-type: none"> • Keep sites primitive to maintain the undeveloped wilderness atmosphere of the park.
Communications	<ul style="list-style-type: none"> • Public (website) information should warn visitors of the backcountry nature of the park, its sensitivities and importance in protecting wetland ecosystems; and the minimal facilities and services available. 	<ul style="list-style-type: none"> • Marketing information should warn visitors of the backcountry nature of the park and the minimal facilities and services available.
	<ul style="list-style-type: none"> • Work with commercial operators (if/when there are any) to pass on key interpretive messages to clients. 	

Appendix A – Recommended Changes to Park Boundaries

When Flat Lake and Moose Valley Parks were created through recommendations of the Cariboo-Chilcotin Land Use Plan, the boundaries contained a number of small irregularities resulting in small areas of parkland isolated by industrial roads. As well, the boundaries did not contemplate longer term public access to Flat Lake Park, nor were First Nations' values fully considered in the creation of the parks. This management planning process recognizes these shortfalls and makes a number of recommendations to address them. (Refer to Park Additions and Deletions Maps on the following two pages.) The following five additions and deletions are suggested.

1. Delete the small section of Moose Valley Park north of the Moose Valley Canoe Road and remove this portion of the road from the park. This area is isolated from the main body of the park by this industrial road. Industrial and commercial traffic is not permitted on this road according to the *Park Act*. Deleting this area and making the southern boundary of the road right-of-way the new park boundary would permit industrial traffic as well as create a more manageable boundary. Total size of this deletion is 24 hectares.
2. Add a small section of forested land that is currently isolated between the north side of Moose Valley Park and the Moose Valley Canoe Road. The area is comprised of lodgepole pine and other forested vegetation typical of the area. Making the southern boundary of the road right-of-way the park boundary would make a more manageable and logical boundary. Total size of this addition is 119 hectares.
3. Delete a small section of Moose Valley Park that is currently isolated by the 1100 Road and remove this portion of the road from the park. Industrial and commercial traffic is not permitted on this road according to the *Park Act*. Deleting this area and making the northern boundary of the road right of way the new boundary would permit industrial traffic as well as create a more manageable boundary. Total size of this deletion is 1 hectare.
4. Add a small area on the southeast side of Moose Valley Park between the current park boundary and Gustafson-Dog Creek Forest Service Road right-of-way. This small addition, which is primarily a wet, boggy area, was suggested by the NsTQ as an area with a particularly high concentration of Labrador Tea, a highly valued food and medicinal plant and is easily accessed by the community. Concentrations of the plant are becoming increasingly rare in the vicinity and will benefit from protection. Total size of this addition is 52 hectares.
5. Add a small area on the east side of Flat Lake Park adjacent to Davis Lake. Environmental Stewardship Division has applied for a Use, Recreation and Enjoyment of the Public (UREP) reserve on this area to prevent any dispensations of the land. The intent for this area is that it will provide long term public access to Flat Lake Park. It may be upgraded to a day use area in the future. At the present time, there are no safe access points to Davis Lake that are located on Crown land – the only access points are located on other lakes farther down the chain, on roads that may not be maintained in the future. A private power line crosses this small parcel, and the park addition will have to have an easement placed on it. Total size of this addition is 26 hectares.





Appendix B – Wetland Types in Moose Valley and Flat Lake Parks

Wetlands of Moose Valley Provincial Park

Moose Valley Provincial Park contains a very high density and diversity of wetlands. The concentration of wetlands in the park is largely due to its pitted or kettled topography. This topography, with its numerous depressions in surficial materials, resulted from the melting of buried or partially buried glacial ice during final melting of the glacier.

Shallow water, marshes, and fens are the most common wetland classes that occur in the park. It is also likely that limited areas of swamps also occur. It is not known if wet meadows, shrub-carrs or saline meadows are present in the park. They are known to occur to the south of the park. If present, they are likely very uncommon.

Shallow water Class

The shallow waters wetland class includes sites that are dominated by rooted, submerged and floating aquatic plants that are adapted to permanent flooding. In portions of some lakes and in some ponds this vegetation develops into such a dense mass of subsurface plants that it impedes the movement of canoes across the water surface. Common shallow water vegetation occurring or suspected to occur in the park includes:

- yellow waterlily (*Nuphar polysephalum*),
- water smartweed (*Polygonum amphibium*),
- coontail (*Ceratophyllum demersum*),
- pondweeds (*Potamogeton* spp.)
- native water-milfoils (*Myriophyllum* spp.)
- bur-reeds (*Sparganium* spp.)
- duckweeds (*Lemna* spp.)
- great duckweed (*Spirodela polyrhiza*)
- bladderworts (*Utricularia* spp.) .

Marsh Wetland Class

Marshes are semi-permanently to seasonally, shallowly flooded mineral wetlands dominated by emergent grass-like vegetation. These commonly occur along the shores of most lakes and ponds of the park. The vegetation of marshes in the park are commonly dominated by one or two emergent plant species. Common marsh vegetation includes:

- soft-stemmed bulrush (*Scirpus validus/acutus*)
- cattail (*Typha latifolia*)
- water sedge (*Carex aquatilis*)
- beaked sedge (*Carex utriculata*)
- marsh cinquefoil (*Potentilla palustris*)
- common spike-rush (*Eliocharis palustris*)
- water horsetail (*Equisetum fluviatile*)
- greater bladderwort (*Utricularia vulgaris*)
- hooked mosses (*Drepanocladus* spp)

Frequently shallow water vegetation, such as duckweeds and pondweeds, often intermingles into marshes as well.

Some of the more commonly occurring marshes in the park include:

- Beaked sedge – Water sedge marsh
- Cattail marsh
- Bulrush marsh
- Common spike-rush marsh.

Fen Wetland Class

Fens are peatlands that occur where permanent saturation results in peat accumulation. In these wetlands mineral bearing ground water flows through them maintains a relatively high nutrient content. Fens in the park are often dominated by sedges and brown mosses, giving them a grassy meadow appearance. Shrubs and grasses or reeds can also be abundant in some fens. Common vegetation of fens can include:

- scrub birch (*Betula glandulosa*)
- bog willow (*Salix pedicellaris*)
- buckbean (*Menyanthes trifoliata*)
- chordroot sedge (*Carex chordorrhiza*)
- shore sedge (*Carex limosa*)
- water sedge (*Carex aquatilis*)
- slender sedge (*Carex lasiocarpa*)
- marsh cinquefoil (*Potentilla palustris*)
- narrow-leaved cotton-grass (*Eriophorum angustifolium*)
- hooked mosses (*Drepanocladus* spp.)
- golden fuzzy fen-moss (*Tomentypnum nitens*)

Some of the more common fens in the park include:

- Scrub birch – Water sedge fen
- Scrub birch – Buckbean – Hook moss fen
- Slender sedge- Buckbean fen
- Slender sedge – Common hook moss fen
- Water sedge – Beaked sedge fen

Swamp Wetland Class

Given the nature of the topography in the park, swamps also likely occur in the park. Swamps are mineral or peatland ecosystems where there is significant groundwater flow through the site and adequate aeration of the soil surface to allow trees or tall shrubs to grow. In the park these will most probably be Spruce – Common horsetail – Leafy moss swamps and Bebb's willow – Bluejoint swamps.

Wetlands of Flat Lake Provincial Park

Flat Lake Provincial Park is representative of the high plateau areas south-east of 100 Mile House. Throughout the area of the park, glacial ice deposited loamy glacial till, which has a very complex hummocky surface with numerous enclosed hollows. The high concentration of shallow lakes and wetlands in the park is largely due to this pitted or kettled topography.

Shallow water, marshes, and fens are the most common wetland classes that occur in the park. Swamps although not common, occur where there is sufficient aerated groundwater flow, such as

in gullies and along streams. Moist graminoid meadow, and shrub-carr transition classes are also represented in the park. Moist graminoid meadows commonly occur on moist saline or alkaline sites that are rarely inundated or inundated for only brief periods early in the season. Shrub-carrs occur occasional in the park in moist frost prone depressions.

Shallow water Class

The shallow waters wetland class include sites that are dominated by rooted, submerged and floating aquatic plants that are adapted to permanent flooding. In portions of some lakes and in some ponds this vegetation develops into a such a dense mass of subsurface plants that it impedes the movement of canoes across the water surface. Common shallow water vegetation occurring or suspected to occur in the park includes

- yellow waterlily (*Nuphar polysephalum*),
- water smartweed (*Polygonum amphibium*),
- coontail (*Ceratophyllum demersum*),
- pondweeds (*Potamogeton* spp.)
- native water-milfoils (*Myriophyllum* spp.)
- bur-reeds (*Sparganium* spp.)
- duckweeds (*Lemna* spp.)
- great duckweed (*Spirodela polyrhiza*)
- bladderworts (*Utricularia* spp.) .

Marsh Wetland Class

Marshes are semi-permanently to seasonally, shallowly flooded mineral wetlands dominated by emergent grass-like vegetation. These commonly occur along the shores of most lakes and ponds of the park. The vegetation of marshes in the park are commonly dominated by one or two emergent plant species. Common marsh vegetation includes:

- soft-stemmed bulrush (*Scirpus validus/acutus*)
- cattail (*Typha latifolia*)
- water sedge (*Carex aquatilis*)
- beaked sedge (*Carex utriculata*)
- marsh cinquefoil (*Potentilla palustris*)
- common spike-rush (*Elyocharis palustris*)
- water horsetail (*Equisetum fluviatile*)
- greater bladderwort (*Utricularia vulgaris*)
- hooked mosses (*Drepanocladus* spp)

Frequently shallow waters vegetation, such as duckweeds and pondweeds, often intermingles into marshes as well.

Some of the more commonly occurring marshes in the park include:

- Beaked sedge – Water sedge marsh
- Cattail marsh
- Bulrush marsh
- Common spike-rush marsh.

Fen Wetland Class

Fens are peatlands that occur where permanent saturation results in peat accumulation. In these wetlands mineral bearing ground water flows through them maintains a relatively high nutrient content. Fens in the park are often dominated by sedges and brown mosses, giving them a grassy meadow appearance. Shrubs and grasses or reeds can also be abundant in some fens. Common vegetation of fens can include:

- scrub birch (*Betula glandulosa*)
- bog willow (*Salix pedicellaris*)
- buckbean (*Menyanthes trifoliata*)
- chordroot sedge (*Carex chordorrhiza*)
- shore sedge (*Carex limosa*)
- water sedge (*Carex aquatilis*)
- slender sedge (*Carex lasiocarpa*)
- marsh cinquefoil (*Potentilla palustris*)
- narrow-leaved cotton-grass (*Eriophorum angustifolium*)
- hooked mosses (*Drepanocladus* spp.)
- golden fuzzy fen-moss (*Tomentypnum nitens*)

Some of the more common fens in the park include:

- Scrub birch – Water sedge fen
- Scrub birch – Buckbean – Hook moss fen
- Slender sedge- Buckbean fen
- Slender sedge – Common hook moss fen
- Water sedge – Beaked sedge fen

Swamp Wetland Class

Given the nature of the topography in the park, swamps also likely occur in the park. Swamps are mineral or peatland ecosystems where there is significant groundwater flow through the site and adequate aeration of the soil surface to allow trees or tall shrubs to grow. In the park these will most probably be Spruce – Common horsetail – Leafy moss swamps and Bebb’s willow – Bluejoint swamps.

Moist Graminoid Meadow Transition Class

Moist graminoid meadows are ecosystems with moist, alkaline or saline soils that commonly occur within the drawdown zone of ponds and lakes. They can be shallowly flooded or merely saturated in the early season, with the watertable quickly falling below ground surface by early summer. These sites are dominated by salt-tolerant graminoids and forbs and commonly includes:

- Alkali salt grass (*Distichlis spicata*)
- Nuttall’s alkali grass (*Puccinellia nuttalliana*)
- foxtail barley (*Hordeum jubatum*)
- tufted white prairie aster (*Aster ericoides*)
- Baltic rush (*Juncus balticus*)
- field sedge (*Carex preae gracilis*)
- shore buttercup (*Ranunculus cymbalaria*)
- seablite (*Suaeda calceoliformis*)

- silverweed (*Potentilla anserina*).

The two most common moist graminoid meadow communities in the park are Alkali saltgrass and Nuttall's alkaligrass – Foxtail barley.

Shrub-carr Transition Class

Shrub-carrs are low shrub ecosystems that occur in frost-prone depressions on moist mineral soils. Soils are very moist but are never flooded and receive most of their water from runoff and seepage from surrounding basin slopes. Frost events are too frequent and severe on these sites for the establishment of trees. In the park these shrubby sites are relatively uncommon and are dominated by scrub birch (*Betula glandulosa*), and short-fruited willow (*Salix brachycarpa*) growing on hummocks. Kinnikinnick (*Arctostaphylos uva-ursi*), mat muhly (*Muhlenbergia richardsonis*), slender wheatgrass (*Elymus trachycaulus*), field sedge (*Carex praegracilis*) and star-flowered false Solomon's seal (*Smilacina stellata*).

Scrub birch – Kinnikinnick is the common shrub-carr plant community in the park.

Appendix C – Suspected Species at Risk in Moose Valley and Flat Lake Parks

Species at Risk in the IDF Zone in the 100 Mile House Forest District

**Note: This is not a list of *Listed Species* in Moose Valley and Flat Lake Parks. They are species that *may* occur in the area. The only confirmed species that has been found within the parks to date is the Blue-listed Sandhill crane.

Common Name	Scientific Name	Prov Listing
Fish		
White Sturgeon, Fraser pop.	<i>Acipenser transmontanus (pop 4)</i>	red
Cutthroat Trout, Lewisi ssp	<i>Oncorhynchus clarki lewisi</i>	blue
Cutthroat Trout, Clarki ssp	<i>Oncorhynchus clarki clarki</i>	blue
Bull Trout	<i>Salvelinus confluentus</i>	blue
Dolly Varden	<i>Salvelinus malma</i>	blue
Amphibians		
Great Basin Spadefoot Toad	<i>Spea intermontana</i>	blue
Reptiles		
Racer	<i>Coluber constrictor</i>	blue
Gopher Snake, desericola ssp	<i>Pituofis catenifer deserticola</i>	blue
Birds		
American Bittern	<i>Botaurus lentiginosus</i>	blue
Great Blue Heron, herodias ssp	<i>Ardea herodias herodias</i>	blue
Swainson's Hawk	<i>Buteo swainsoni</i>	red
Prairie Falcon	<i>Falco mexicanus</i>	red
Sharp-tailed grouse	<i>Tympanuchus phasianellus columbianus</i>	blue
Sandhill Crane	<i>Grus Canadensis</i>	blue
American Avocet	<i>Recurvirostra americana</i>	red
Long-billed Curlew	<i>Numenius americanus</i>	blue
Flammulated Owl	<i>Otus flammeolus</i>	blue
Short-eared Owl	<i>Asio flammeus</i>	blue
Lewis' Woodpecker	<i>Melanerpes lewis</i>	blue
Brewers Sparrow	<i>Spizella breweri breweri</i>	red
Bobolink	<i>Dolichonyx oryzivorus</i>	blue
Mammals		
Fringed myotis	<i>Myotis thysanodes</i>	blue
Western small-footed myotis	<i>Myotis ciliolabrum</i>	blue
Spotted bat	<i>Eudernum maculata</i>	blue
Grizzly bear	<i>Ursus arctos</i>	blue
Fisher	<i>Martes pennanti</i>	blue
Wolverine, luscus ssp	<i>Gulo gulo luscus</i>	blue
Badger	<i>Taxidea taxus</i>	red
Bighorn Sheep	<i>Ovis Canadensis</i>	blue
Vascular Plants		
Western dogbane	<i>Apocynum x floribundum</i>	blue

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woody-branched rockcress	<i>Arabis lignifera</i>	blue
blue grama	<i>Bouteloua gracilis</i>	red
short-beaked sedge	<i>Carex simulata</i>	blue
American chamaerhodos	<i>Chamaerhodos erecta ssp nuttallii</i>	blue
thyme-leaved spurge	<i>Chamaesyce serpyllifolia ssp serpyllifolia</i>	blue
dark lamb's quarters	<i>Chenopodium atrovirens</i>	red
fendler bluegrass	<i>Poa fendleriana ssp fendleriana</i>	red
five-leaved cinquefoil	<i>Potentilla nivea var. pentaphylla</i>	blue
Booth's willow	<i>Salix boothii</i>	blue
sprangle top	<i>Scollochoa festucacea</i>	red
Drummond's campion	<i>Silene drummondii var. drummondii</i>	blue

Plant Communities at Risk in the IDF dk 3 Subzone of the 100 Mile House Forest District

**Note: This is not a list of *Listed Communities* in Moose Valley and Flat Lake Parks. They are communities that *may* occur in the area.

Common Name	Scientific Name	Prov Listing
Awned sedge Fen - Marsh	<i>Carex antherodes Fen - Marsh</i>	interim blue
Slender sedge / dreplanocladus moss	<i>Carex lasiocarpa - Dreplanocladus aduncus</i>	interim blue
Salt grass / alkali grass	<i>Distichlis stricta - Puccinellia nuttalliana</i>	interim blue
Bluebunch wheat grass - june grass	<i>Elymus spicatus - Koeleria macrantha</i>	interim red
buckbean - slender sedge	<i>Menyanthes trifoliata - Carex lasiocarpa</i>	interim blue
Hybrid white spruce / prickly rose / sarsaparilla	<i>Picea englemanni x glauca / Rosa acicularis / Aralia nudicaulis</i>	blue
Hybrid white spruce / prickly rose / sedge	<i>Picea englemanni x glauca / Rosa acicularis / Carex</i>	blue
Douglas fir / bluebunch wheatgrass - needlegrass	<i>Pseudotsuga menziesii / Elymus spicatus - Stipa occidentalis</i>	blue
Douglas fir / common juniper / kinnikinnick	<i>Pseudotsuga menziesii / Juniperus communis / Arctostaphylos uva-ursi</i>	red
Douglas fir / common juniper / penstemon	<i>Pseudotsuga menziesii / Juniperus communis / Penstemon</i>	interim red
Douglas fir / feathermoss - step moss	<i>Pseudotsuga menziesii / Pleurozium - Hylocomium</i>	interim blue
Tall willow / Sartwell's sedge	<i>Salix ssp - Carex cartwelli</i>	interim blue
Bullrush marsh	<i>Scirpus lacustris Marsh</i>	interim blue
Arrowgrass marsh	<i>Triglochin maritimum Marsh</i>	interim blue

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RED LIST: Includes any indigenous species or subspecies that have, or are candidates for *Extirpated*, *Endangered*, or *Threatened* status in British Columbia. *Extirpated* taxa no longer exist in the wild in British Columbia, but do occur elsewhere. *Endangered* taxa are facing imminent extirpation or extinction. *Threatened* taxa are likely to become endangered if limiting factors are not reversed. Not all Red-listed taxa will necessarily become formally designated. Placing taxa on these lists flags them as being at risk and requiring investigation.

BLUE LIST: Includes any indigenous species or subspecies considered to be *Vulnerable* in British Columbia. *Vulnerable* taxa are of special concern because of characteristics that make them particularly sensitive to human activities or natural events. Blue-listed taxa are at risk, but are not *Extirpated*, *Endangered* or *Threatened*.