



# Redfern-Keily Park

## Management Plan

June 2021



BC Parks

# Redfern-Keily Park Management Plan

**Approved by:**

A handwritten signature in blue ink, reading "G. Heyman", is written over a solid black horizontal line.

Honourable George Heyman  
Minister of Environment and Climate Change Strategy

June 14, 2021

## Foreword by BC Treaty 8 First Nations

*WELCOME to our homeland. The Beaver (Dunne-za, Dane-zaa), Cree, Sauteau, Slavey (Dene), and TseK' hene indigenous groups have occupied these lands since time immemorial. Treaty 8 was signed in the spirit of Peace and Friendship on June 21, 1899. British Columbia Treaty 8 Territory is hundreds of thousands of square kilometres in size and includes 8 groups: Blueberry River First Nations, Doig River First Nation, Fort Nelson First Nation, Halfway River First Nation, McLeod Lake Indian Band, Prophet River First Nation, Sauteau First Nations and West Moberly First Nations. Our relationship to the land has and continues to be the spiritual basis for our mode of life. The land has always, and will continue to, provide shelter, food, clothing, and the economic resources for our livelihood. As a First Nation, we have an obligation to implement our inherent rights that are affirmed by the Constitution Act, 1982. This includes sustainability of our resources in order for us to hunt, trap, fish, and continue our mode of life. Prior to the arrival of the Europeans we were actively involved in the management of our territories: the lands understood us and we understood the land. Today, we continue to manage our Territory.*

*BC Treaty 8 First Nations would like neighbouring First Nations, outdoor enthusiasts and other visitors to our land who are enjoying the bounties of this Park to acknowledge and respect that you are on Treaty 8 Territory. Please act as a steward of Treaty 8 Territory so that together we will maintain its natural beauty, and cultural resources. This maintenance will be respectful to our current use and for future generations. Please conduct yourself in a manner that respects cultural heritage resources and values. Treaty 8 Territory will always be the home of First Nations for as long as the sun shines, the grass grows and the water flows.*



## Foreword by BC Kaska Dena First Nations

*The Kaska traditional territory is 24 million hectares and includes portions of three provinces and territories (British Columbia, Yukon and Northwest Territories). The majestic northern boreal forest regions of interior British Columbia and the Yukon have some of the continent's most expansive and impressive wilderness areas, with a great diversity of terrestrial and aquatic ecosystems. Extensive mountain ranges and wild rivers frame pristine boreal forest watersheds. Large free ranging populations of Caribou, Moose, Dall's Sheep, Stone Sheep, a full suite of large carnivores and hundreds of thousands of migrating neo-tropical songbirds and waterfowl make their home in these diverse boreal landscapes.*

*Since human beings have inhabited this landscape, we have been here. As long as human beings inhabit this landscape, we will remain here. Our occupancy of this land establishes both our right and our responsibility to ensure this land remains intact and able to support our people and culture. We emphasize it is now time to secure its permanent protection in order to protect a broad diversity of resources and values that are critical to our culture and our economic opportunities within our homeland.*

*The health of Kaska culture requires large intact landscapes which support healthy populations of traditional plants and animals. Furthermore, a central facet of our identity requires large unfragmented landscapes for our families to be on. This is where our traditional knowledge is passed on from parent to child, from generation to generation. As well, our physical health requires continued access to healthy wildlife populations as a key component of the diet to which we are accustomed and adapted.*

*Permanently protected areas and parks can play an important role in ensuring the long term health of First Nations cultures, and thus the Kaska are generally supportive of the concept of "parks" as a mechanism to protect our cultural interests. As well, the Kaska are supportive of parks within their traditional territories, with some caveats, as a contribution to the overall richness and core spiritual values of Canadian culture.*



## Foreword by Tsay Keh Dene Nation

*The Tsay Keh Dene people are culturally “Sekani”, often translated as “people of the rocks” or “people of the mountains”. The Sekani are the original inhabitants of the Rocky Mountain Trench and surrounding areas in British Columbia.*

*Like their ancestors, Tsay Keh Dene people make regular and extensive use of their lands and waters in their territory for hunting, fishing, trapping, gathering and other traditional activities. Tsay Keh Dene asserts unextinguished rights and title to the lands, waters and resources within their traditional territory. Tsay Keh Dene oral history reveals that their ancestors were intimately familiar with their traditional territory, the resources it contained and how to use them – knowledge that could only be gained through regular and extensive use and occupation of their territory over countless generations. This traditional knowledge is a central feature of Tsay Keh Dene Nation identity and culture.*

*The Redfern Lake area features very prominently in Tsay Keh Dene oral history. This area was used and occupied, and continues to be used and occupied, by Tsay Keh Dene people for a wide range of traditional activities. Hunting of ungulates including Caribou, Moose, Stone Sheep, Mountain Goat and other species was and continues to be conducted on a regular and sustainable basis. Fishing is also an important source of food along with seasonal gathering of edible plants and roots. Tsay Keh Dene Elders vividly recall how they and their ancestors made extensive use of the abundant resources that Redfern Lake and surrounding areas provided to them.*

*Redfern Lake and surrounding areas remain very important to the Tsay Keh Dene people in sustaining their way of life and culture. Like their ancestors, Tsay Keh Dene people are determined to protect Redfern Lake and surrounding areas for present and future generations. Tsay Keh Dene Nation lands and waters are increasingly under threat from unsustainable, large scale industrial development. Yet despite the pressures of development within Tsay Keh Dene territory, Redfern-Keily Park has largely remained pristine. As stewards of the lands and waters at Redfern Lake and surrounding areas, Tsay Keh Dene Nation supports efforts to preserve the biodiversity and fragile ecosystems that are found in Redfern-Keily Park for the benefit of Tsay Keh Dene Nation members and visitors to the territory.*



## Vision Statement

The alpine meadows, forested valley bottoms, serrated peaks, glaciers, waterfalls and large valley lakes that dominate the mountainous Redfern-Keily Park landscape contribute to its appeal; Redfern-Keily Park remains a largely untouched, though relatively accessible, wilderness area situated in the Muskwa-Kechika Management Area.

Its proximity to other provincial protected areas provides habitat connectivity and ensures preservation of intact predator-prey systems and ecosystem functionality.

Redfern-Keily Park plays an important role in providing backcountry recreation opportunities for local, national and international visitors. Development has been kept at a minimum and the few facilities that exist have been maintained with the goal of providing a wilderness experience. Levels of use, both public and commercial, are low, but are monitored to ensure that key park values and wilderness experiences are not negatively impacted.

Recognizing the traditional use of Redfern-Keily Park is important to the area's First Nation communities; Redfern-Keily Park remains a location where First Nations members practice their traditional social, ceremonial and cultural activities.



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# 1.0 Introduction

## 1.1 Management Plan Purpose

The purpose of this management plan is to guide the management of Redfern-Keily Park. This management plan:

- articulates the key features and values of Redfern-Keily Park;
- identifies appropriate types and levels of management activities;
- determines appropriate levels of use and development;
- establishes a long-term vision and management objectives for the park; and
- responds to current and predicted threats and opportunities by defining a set of management strategies to achieve the management vision and objectives.

## 1.2 Planning Area

Redfern-Keily Park, established as a Class A park in 1999 and encompassing 80,712 hectares, is located in the Muskwa-Kechika Management Area<sup>1</sup>(M-KMA)(Figure 1). The M-KMA, established in 1999 (*Muskwa-Kechika Management Area Act*), is an area of unique wilderness endowed with a globally significant abundance and diversity of wildlife. The long-term maintenance of the wilderness characteristics, wildlife and its habitat within the M-KMA is critical to the social and cultural well-being of First Nations and local communities. The long-term resource management objective for the M-KMA is to return the lands to their natural state as development activities are completed.

The Muskwa-Kechika Management Area is zoned into a number of different resource management zones, including protected areas, which are intended to maintain in perpetuity the wilderness quality and the diversity and abundance of wildlife and the ecosystems on which it depends while allowing for resource development and use in parts designated for those purposes. The integration of management activities especially related to road access is central to achieving the intent of the M-KMA. As a result, resource management within the M-KMA must be consistent with the Muskwa-Kechika Management Plan Regulation.

Within the M-KMA there are approximately 1.17 million hectares of protected land within twenty-three provincially protected areas of various designations. The three closest provincial protected areas, also located within the Muskwa-Kechika Management Area, are Northern Rocky Mountains Park, Prophet River Hot Springs Park and Sikanni Chief Ecological Reserve. Prophet River Hot Springs Park is located 13 kilometres to the north between Northern Rocky Mountains and Redfern-Keily parks;

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<sup>1</sup> For more information on the Muskwa-Kechika Management Area, visit <http://www.muskwa-kechika.com/>.

Sikanni Chief Ecological Reserve is located approximately three kilometres to the southwest.

The two large communities that are closest to the park are Fort Nelson (approximate population 4,000) and Fort St. John (approximate population 21,000). Fort Nelson is about 150 kilometres northeast of the park and Fort St. John is located about 200 kilometres southeast of the park.

Key features of Redfern-Keily Park include: Redfern Lake (often referred to as the “Lake Louise of the North”), a portion of the Redfern Lake Trail (an important access route into the park from Highway 97), significant ungulate populations and habitats, and important old-growth habitats for mustelids<sup>2</sup> (more commonly known as furbearers).

### **1.2.1 Fort St. John Land and Resource Management Plan**

In the mid-1990s, the Fort St. John LRMP Table was directed to recommend 4% of the Fort St. John Forest District as protected areas towards the regional goal of 9% for the Prince George Forest Region. Redfern-Keily Park was one of 11 sites that were recommended; and one of three that were identified for protection by local First Nations. For all the protected areas that were recommended, the Fort St. John LRMP recognized that trapping, hunting, fishing and guide outfitting would be acceptable uses. Additionally, the Fort St. John LRMP provided a number of specific objectives and strategies to guide the management of values and activities within Redfern-Keily Park for recreation, access, wildlife, biodiversity, fish, water, protected area and visual quality. Planning for an update to the Fort St. John LRMP began in 2019.

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<sup>2</sup> A mustelid is a small, carnivorous mammal with a long body and short legs and generally has musky scent glands under the tail (e.g., marten, wolverine, and fisher).





## 1.3 Legislative Framework

The Redfern-Keily area was first recognized for its recreation potential in 1969 when the province placed a recreation reserve around Redfern Lake; the size of this reserve was increased in 1973 and again in 1981. In 1986, conversion of the recreation reserve to a recreation area around Redfern and Fairy lakes was recommended by the provincial Wilderness Advisory Committee (the purpose of the committee was to review land use and make recommendations for the protection of British Columbia's wilderness).

Redfern Lake was identified as an Area of Interest in the province's Protected Areas Strategy in July 1993. The Redfern-Keily area was recommended for designation as a protected area through the Fort St. John Land and Resource Management Plan (LRMP)<sup>3</sup> process in 1999. Redfern-Keily Park was established as a Class A park by the *Park Amendment Act, 1999* on June 29, 1999. The park is presently named and described in Schedule D of the *Protected Areas of British Columbia Act*.

Class A parks are Crown lands dedicated to the preservation of their natural environments for the inspiration, use and enjoyment of the public. Development in Class A parks is limited to that which is necessary to maintain the recreational values of the park. Some activities that existed at the time a park was established (e.g., grazing, hay cutting) may be allowed to continue in certain Class A parks<sup>4</sup> but commercial resource extraction or development activities are not permitted (e.g., logging, mining or hydroelectric development).

### 1.3.1 Muskwa-Kechika Management Area Act

As a result of the dedicated work of land and resource planning table members during the 1990's in Fort Nelson and Fort St. John, and later in Mackenzie, the *Muskwa-Kechika Management Area Act* and the Muskwa-Kechika Management Plan Regulation, were adopted through Order-in-Council, and enacted in 1998. The purpose of this legislation was to provide guidance to managers in government agencies and non-government organisations, communities, and industry groups while conducting their activities in the M-KMA. As well, a public advisory board was appointed by the Premier, which has undergone an annual process of review and appointment/reappointment of members, to provide advice to government on planning and land use management. A trust fund was established to fund projects and is held by the University of Northern British Columbia (UNBC).

The Act identifies the M-KMA as being a unique wilderness area of global significance and outlines the following management intent for the area:

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<sup>3</sup> To access the Fort St. John Land and Resource Management Plan, visit <https://www2.gov.bc.ca/gov/content/industry/crown-land-water/land-use-planning/regions/northeast/fortstjohn-lrmp>

<sup>4</sup> Applies only to Class A parks listed in Schedule D of the *Protected Areas of British Columbia Act*.

*“... the management intent for the Muskwa-Kechika Management Area is to maintain in perpetuity the wilderness quality, and the diversity and abundance of wildlife and the ecosystems on which it depends while allowing resource development and use in parts of the Muskwa-Kechika Management Area designated for those purposes including recreation, hunting, trapping, timber harvesting, mineral exploration and mining, oil and gas exploration and development ...”*

To support land management, the *Muskwa-Kechika Management Area Act* specified the creation of the Muskwa-Kechika Management Plan and five types of local strategic plans: a recreation management plan (completed), a wildlife management plan (completed), oil and gas pre-tenure plans (completed), park management plans (such as this plan) and local strategic forestry plans, referred to as landscape unit objectives (which are completed when there is forestry activity). As one of the local strategic plans, the Redfern-Keily Park management plan is consistent with the direction provided by the Muskwa-Kechika Management Plan; it also considers direction within the other strategic level plans.

BC Parks worked with the Muskwa-Kechika Management Area advisory board to ensure that the management objectives and strategies in this management plan are consistent with the objectives of the Muskwa-Kechika Management Plan. Part of the responsibilities of the advisory board are to support the initiation of park management plans and to ensure adequate public consultation in the preparation of these park management plans.

#### **1.4 Relationship with First Nations**

Redfern-Keily Park falls within the treaty area of the following Treaty 8 First Nations:

- Blueberry River First Nation
- Doig River First Nation
- Halfway River First Nation
- Prophet River First Nation
- West Moberly First Nations

Redfern-Keily Park falls within the asserted traditional territory of the following First Nations:

- Tsay Keh Dene Nation
- Kaska Dena Council First Nations

This park management plan and subsequent management actions within Redfern-Keily Park will respect the government-to-government agreements that have been signed with different First Nations as well as First Nations traditional harvesting, cultural activities, and other aboriginal rights and interests. The management of protected areas can be improved by incorporating First Nations' traditional ecological knowledge and

cultural knowledge. BC Parks' goal is to gather, collate and integrate local traditional knowledge with other scientific data to manage the park.

British Columbia is working collaboratively with Indigenous peoples to establish a clear, cross government vision for reconciliation to guide the adoption and implementation of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), the Truth and Reconciliation Commission's 94 Calls to Action, and the Tsilhqot'in Supreme Court decision. All BC Government ministries have been tasked with finding ways to implement the UNDRIP through a review of the province's policies, programs, and legislation.<sup>5</sup> Part of this review is guided by the recognition of Indigenous knowledge, cultures and traditional practises and their contributions to sustainable and equitable development and proper management of the environment.

#### **1.4.1 First Nation Government to Government Agreements**

The Province of British Columbia has entered into, or is negotiating, government-to-government agreements with a number of First Nations whose proven rights or asserted traditional interest areas overlap with Redfern-Keily Park.

The Strategic Engagement Agreement<sup>6</sup> between the Province of British Columbia and the Kaska Dena Council and the Government-to-Government Agreement<sup>7</sup> between the Province of British Columbia and Halfway River First Nation are examples of those agreements. The Government-to-Government Agreements are aimed at reducing land and resource sector conflicts, providing greater certainty, fulfilling specific legal obligations, and improving relationships.

The Tripartite Land Agreement between BC Hydro, the BC government and Prophet River First Nation commits to working together and with others to develop, recommend, and implement land management measures with the objective of improving protection for cultural values and the practice of Treaty 8 Rights in Redfern-Keily Provincial Park.

### **1.5 Relationship with Other Resource Agencies**

BC Parks works directly with other land and resource management agencies to address specific management issues in Redfern-Keily Park. These agencies include the ministries responsible for Crown land, fish and wildlife, range, and wildfire management. They manage the fish and wildlife values, wildfires, prescribed fire, range tenure, pest and disease problems, non park recreation, and access. BC Parks also works with the

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<sup>5</sup> Principles Accord on Transforming Treaty Negotiations in British Columbia. Government of British Columbia, The First Nations Summit, and the Government of Canada. December 1<sup>st</sup>, 2018.  
[https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/consulting-with-first-nations/agreements/principals\\_accord\\_signed\\_dec\\_1\\_2018.pdf](https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/consulting-with-first-nations/agreements/principals_accord_signed_dec_1_2018.pdf)

<sup>6</sup> [Kaska Dena Council Strategic Engagement Agreement](#) (Daylu Dena Council, Dease River FN, Kwadacha FN) - 2018

<sup>7</sup> [Halfway River Government to Government Agreement](#) - 2017

ministries responsible for authorizing industrial activities outside of the park to ensure that resource development applications include consideration of park values.

## 1.6 Adjacent Land Use

### 1.6.1 Land and Resource Management Plan Zones

Redfern-Keily Park is bordered on all sides by Crown land. The Fort St. John, McKenzie and Fort Nelson Land and Resource Management Plans (LRMP) delineated resource management zones within their respective planning areas. Activities permitted within the different resource management zones that surround Redfern-Keily Park have the ability to affect park values, particularly when those activities occur in close proximity to the park or are consumptive in nature (adjacent zones areas depicted in Figure 2).

The Besa–Halfway–Chowade Resource Management Zone (415,477 hectares) within the Fort St. John LRMP borders the Park to the south and to the east. This Resource Management Zone was identified in the plan as Special Management–Fish and Wildlife Habitat, Wilderness Values and Backcountry Recreation and will be managed with a high biodiversity emphasis. The visual quality strategy specifies that areas adjacent to protected areas will be managed to maintain the identified values.

To the north of Redfern-Keily Park is the Prophet Resource Management Zone (157,500 hectares). The management objectives and strategies for this zone are stated in the Fort Nelson LRMP. This zone has several special features, including the Eastern Rockies High Trail and the Bedaux Trail, and valuable large mammal habitats that require consideration during industrial development and timber management activities.

Adjacent to the western boundary of Redfern-Keily Park is the Upper U kai (Upper Akie) Special Wildland Resource Management Zone within the Mackenzie LRMP. This zone is identified as having high Grizzly Bear (*Ursus arctos*) wildlife values. The intent of this zone is to manage for ecological conservation as a priority, while also managing for heritage and cultural values, wilderness characteristics, the provision of recreation opportunities, and oil and gas and mineral exploration opportunities. Timber harvesting is excluded in this zone. The plan also states that as this zone is adjacent to a park, resource development should be sensitive to the intended objectives of the park.



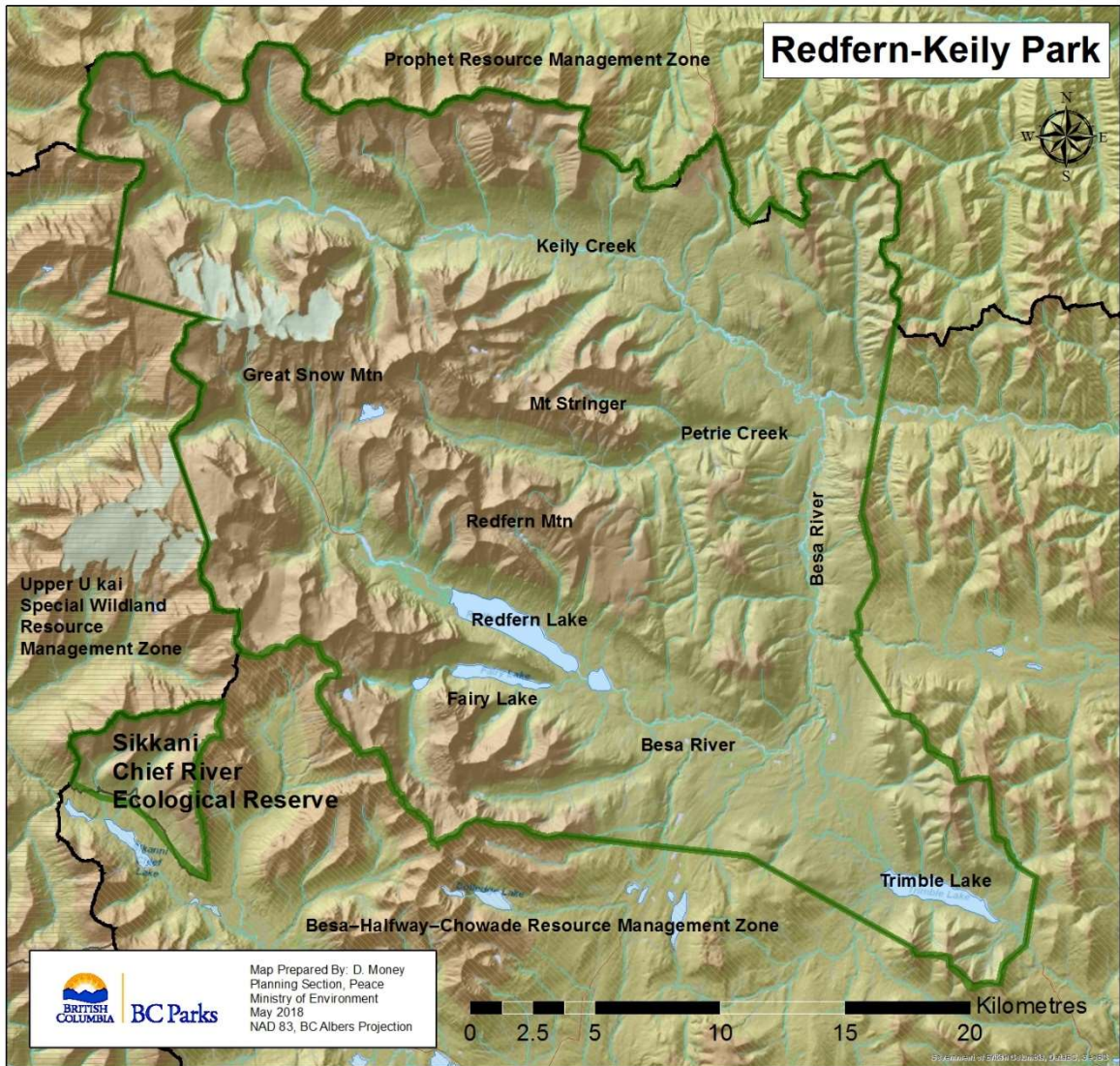


Figure 2: Map of Redfern-Keily Park

### 1.6.2 Authorizations Within and Adjacent to the Park

- Redfern Lake Trail and Sikanni River Trail are designated Muskwa-Kechika Access Management Area routes and provide important access to the park. Outside the park those trails are designated recreation trails under the *Forest and Range Practices Act* and are under the jurisdiction of the ministry that manages Crown land recreation. Redfern Lake Trail, outside of the park, is maintained to minimum standards by the Moose ATV and Northland Trail Blazers Snowmobile clubs.

- Redfern-Keily Park overlaps with three guide outfitting territories and there are five active park use permits for commercial recreation operators that offer a variety of services, including: angling, hiking, horseback riding, camping, snowshoeing, cross-country skiing, kayaking, boat tours, wildlife viewing, and canoeing. For hunting recreational services, guide-outfitter wildlife harvest levels are set by the ministry responsible for wildlife management, in collaboration with BC Parks. Guide-outfitter commercial recreation activities and facilities in the park are managed by BC Parks and authorized under a park use permit. All of the park use permits with commercial recreation operators include privately owned structures.
- Three range tenures<sup>8</sup> for horse grazing exist within Redfern-Keily Park; they are tenured under the *Range Act*. Range tenures for grazing can occur in parks listed in Schedule D of the *Protected Areas of British Columbia Act* and are managed by the Range Program under the *Range Act*. These tenures are associated with businesses that use horses for their operations, and include guide outfitters.
- Four trapline areas overlap with Redfern-Keily Park. Trapping is managed by the ministry responsible for wildlife management. That ministry also manages hunting regulations and harvest allocations at the management unit level and in collaboration with BC Parks. Currently, only one of the trapline holders actively traps within the park (authorized by a valid park use permit). This trapper's permit also includes trapline cabins for overnight use.
- There are four active park use permits allowing air transport into the park.
- Wildlife Habitat Areas for Caribou<sup>9</sup> (*Rangifer tarandus*) have been established adjacent to the park under the *Forest and Range Practices Act* and the *Oil and Gas Activities Act* (see Figure 3).
- Ungulate Winter Ranges for Mountain Goat (*Oreamnos americanus*), Caribou (*Rangifer tarandus*) and Stone's Sheep (*Ovis dalli stonei*) have been established adjacent to the park under the *Forest and Range Practices Act* and the *Oil and Gas Activities Act* (see Figure 3).
- There are no forestry or mining authorizations in the immediate vicinity of the park.
- There is one active petroleum and natural gas tenure 1 kilometre south of Redfern-Keily Park.

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<sup>8</sup> One of the tenures is on the periphery of the park.

<sup>9</sup> Caribou (*Rangifer tarandus*) in the park area are part of the Northern Mountain Caribou population or Designatable Unit, and the Pink Mountain subpopulation. The term Caribou will be used throughout the document to refer to the Pink Mountain subpopulation.



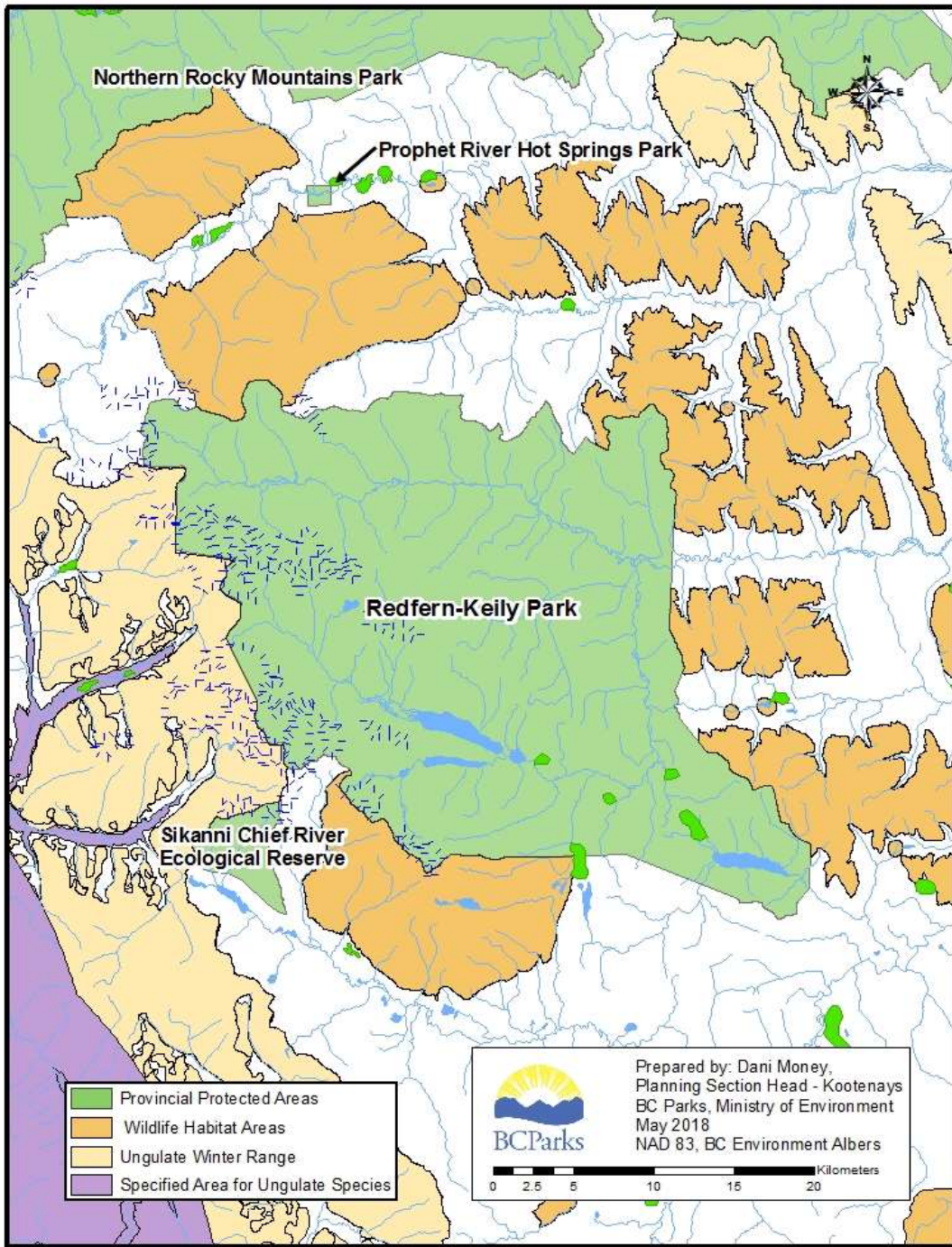


Figure 3: Adjacent Wildlife Habitat Areas and Ungulate Winter Ranges

## 1.7 Park Access

The park is in a remote area and mainly accessed by ORV (off-road vehicle), snowmobile or horse (Figure 4). The park can also be accessed by fixed wing aircraft, both floatplane and wheeled, and helicopters. The closest major road is Highway 97, approximately 50 kilometres, on a straight line, east of the park.

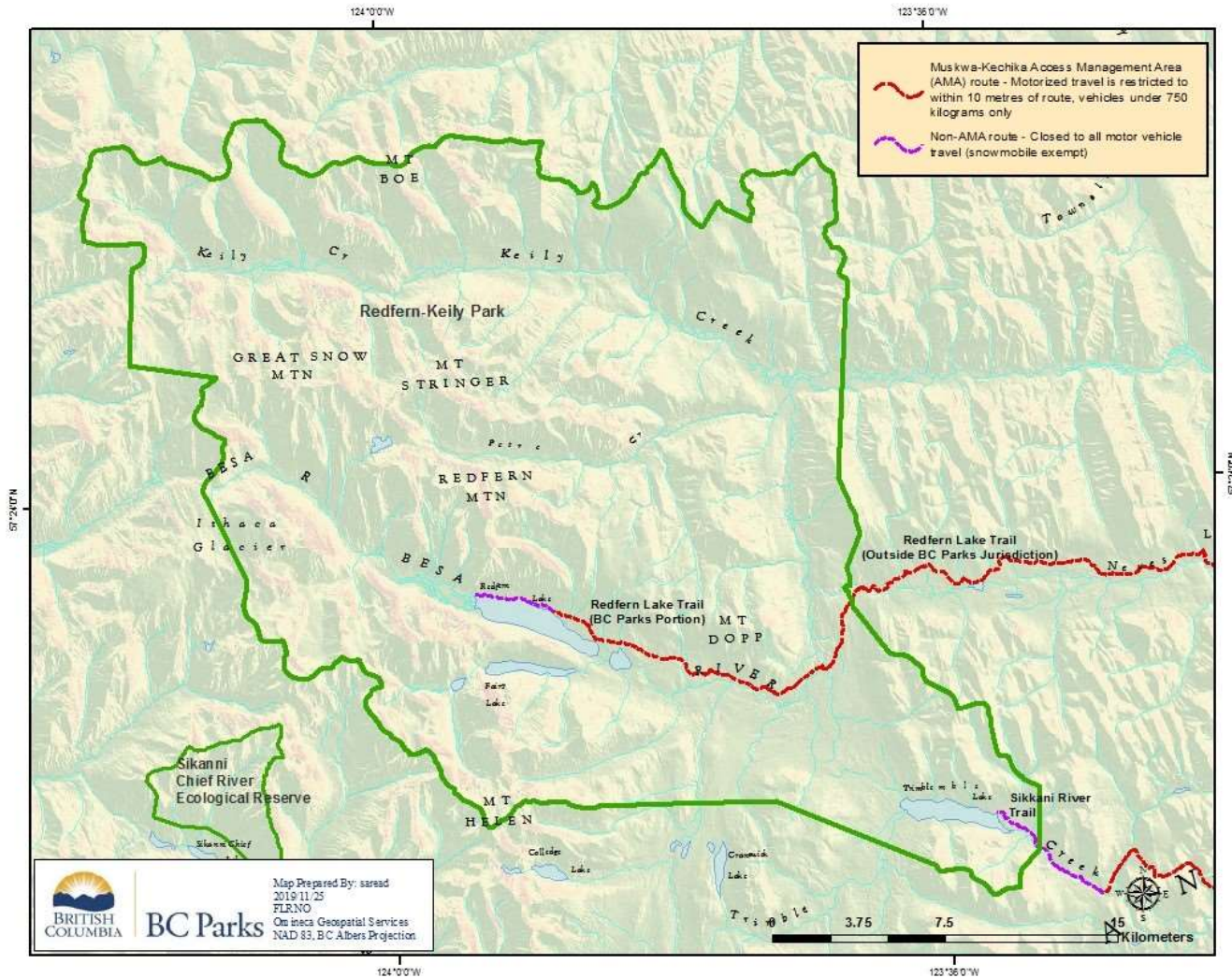


Figure 4: Access map for Redfern-Keily Park

### 1.7.1 Redfern Lake Trail

The main access into Redfern-Keily Park is along the 80-kilometre long Redfern Lake Trail. Redfern Lake Trail starts at Highway 97, runs along Neve Creek then up the Besa River to Redfern Lake. It is open to both motorized and non-motorized access and is popular for hiking, ORV use, horseback riding and snowmobiling. The first 65 kilometres of the trail are outside of the park with the last 15 kilometres being within the park. There is a bridge over the Besa River along the portion of the trail in the park. The



portion of the trail that falls outside of the park is managed by the ministry responsible for recreation and trails on Crown land and it is designated as a user-maintained trail.

This trail is a Muskwa-Kechika Access Management Area route which has restrictions under the *Wildlife Act*, Public Access Prohibition Regulation on motorized vehicle weight and travel proximity from the trail (excluding snowmobiles). Users must familiarize themselves with the Muskwa-Kechika Access Management Area restrictions prior to using the trail. Currently, both inside and outside of the park, Redfern Lake Trail users must use a vehicle that weighs less than 750 kilograms. Within the Muskwa-Kechika Management Area users of the Redfern Lake Trail are restricted to travel within 10 metres of the trail.

### **1.7.2 Sikanni River Trail**

A second access route into the park is along the Sikanni River Trail. This 32 kilometre long trail starts at Highway 97 and runs along Sikanni Chief River to Trimble Lake. The first section of this trail up to Trimble Creek (27 kilometres), is also a Muskwa-Kechika Access Management Area route that is motorized; currently this section has a 750 kilogram legal vehicle weight restriction, and motorized users must travel within 10 metres of the route. From Trimble Creek to Trimble Lake (5 kilometres) the trail is for hiking or horse use only, with the exception of snowmobiles. Only the final two kilometres of the trail is in the park.

## **1.8 Management Planning Process**

Direction for the plan has been provided by the *Muskwa-Kechika Management Area Act*, the Fort St. John LRMP, the Muskwa-Kechika Wildlife Management Plan and the Muskwa-Kechika Recreation Management Plan.

This plan is the completed product of a process that was initiated prior to 2000. During development of the draft management plan, public, stakeholder and First Nations engagement occurred at various stages. This included opportunities for public input through a public mail-out process, website comment form, consultative meetings and open houses. The draft document was made available for public review and comment on the BC Parks webpage in 2018. Consultative discussions with interested First Nations occurred throughout the process and draft documents were provided for review and comment in 2018 and 2020. Information and feedback received during the development of the plan was used to inform and revise the content of the final management plan.

## **2.0 Values and Roles of the Park**

### **2.1 Significance in the Protected Areas System**

Redfern-Keily Park provides extensive and diversified wildlife habitat for large mammals such as Caribou, Elk (*Cervus elaphus*), Grey Wolf (*Canis lupus*), Grizzly Bear, Moose

(*Alces americanus*), Mountain Goat and Stone's Sheep. Its proximity to Northern Rocky Mountains Park to the north functions to enable habitat connectivity for wide-ranging species.

There are only a small number of backcountry areas in the northern Rocky Mountains that are relatively easy for the general public to access. This park protects several of these areas, which are accessed by two very popular Muskwa-Kechika Access Management Area routes: Redfern Lake Trail and Sikanni River Trail.

Its wilderness character, coupled with its accessibility, make Redfern-Keily Park an important backcountry tourism destination to local, provincial, national and international users. The highly scenic landscape is popular with a wide variety of recreationists, from visitors interested in low-impact nature appreciation to hunters and ORV users. Nature appreciation includes experiencing alpine wildflowers in bloom in July and August and visiting old-growth forests on Keily Creek. Redfern Lake, one of the most notable features in the park, has been called the "Lake Louise of the North" by visitors because of its turquoise water.

## 2.2 Biodiversity and Natural Heritage Values

Spectacular geological structures, pristine freshwater values, and a diverse assemblage of vegetation, fish, and wildlife make this area significant in the provincial protected areas system. The brilliant blue colours of Redfern, Fairy and Trimble lakes are among the most outstanding features within the park.



### 2.2.1 Geology and Landforms

An important part of Redfern-Keily Park is the spectacularly exposed geological structures of the Rocky Mountains area. Thrust faults, rugged castellated peaks, and glacially sculpted U-shaped valleys are a primary component of the area's surface features. Hanging valleys, natural arches, cirques and horns (or pyramidal peaks) are also common. Stratified and sedimentary rock are predominant in the area with limestone, dolomite and shale being most common. Mountainous regions are composed of Palaeozoic rock, and the foothills are made of slightly younger Triassic rock. There are seven main mountains in the park, and Mount Ulysses (2,990 metres) is recognized as the highest peak in the Muskwa-Kechika Management Area.



The area has been significantly shaped by tectonic activity; folding and faulting can be seen in exposed rock. This is especially evident south of Trimble Lake to the west of Trimble Mountain where a thrust fault emerges. Erosion is a significant force that shapes surface features of the area. This can be seen in structures such as the hoodoos on Besa River below Mount Dopp.

Glaciers have also played an important role in shaping the current landscape (see section 2.2.2). The area was covered with ice during the last glaciation which lasted from 25,000 to 10,000 years ago. As the ice sheets receded, the area was inundated by a glacial lake that covered the lowlands between the Muskwa and Prophet rivers and the lower Sikanni Chief River. Valley bottoms are covered with a thin layer of glacial till.

### 2.2.2 Water

The main hydrological features of Redfern-Keily Park are Redfern, Fairy, and Trimble lakes. In addition, several waterfalls with heights from 5 to 50 metres are found on both main and side channels of all the creeks and rivers in the area and tarns are commonly found in the cirques.

Much of the freshwater is relatively pristine. The west side of the park contains several large ice fields and includes both the Ithaca and Achaean glaciers. Meltwater from these glaciers feed Besa River and Keily Creek. The entire watershed of Petrie Creek is also within the park.

The Besa River passes through Redfern Lake, the largest lake in the park (Table 1). There are two other relatively large lakes within the park: Fairy Lake (its tributaries feed into the Besa River drainage system) and Trimble Lake in the southeast corner of the park (its tributaries feed into the Upper Sikanni Chief drainage system). All of the waters in the park eventually drain into the Arctic Ocean. Both of the drainage systems represented in the park, the Besa and the Upper Sikanni Chief, are undeveloped.

**Table 1: Surface Area and Average Depth for Lakes in Redfern-Keily Park**

Lake	Surface Area (ha)	Average Depth (m)
Redfern	539	43.5



Trimble	314	13.9
Fairy	151	29.9

### 2.2.3 Biogeoclimatic Zones and Vegetation

Redfern-Keily Park contains mixed spruce and pine forests representative of the high mountain valleys of the eastern flank of the Rocky Mountains, as well as extensive alpine areas. There are three biogeoclimatic (BEC) subzones in the park (Table 2). The moist, cool Spruce-Willow-Birch (SWBmk) and moist, cool scrub Spruce-Willow-Birch (SWBmks) subzones are found along the valley bottoms (below 1,600 metres elevation for SWBmk and between 1,600 metres and 1,800 metres elevation for SWBmks). These subzones are predominantly forested with white spruce (*Picea glauca*) and sub-alpine fir (*Abies lasiocarpa*), with lesser amounts of lodgepole pine (*Pinus contorta* var. *latifolia*), black spruce (*Picea mariana*) and trembling aspen (*Populus tremuloides*). Scrub birch (*Betula nana*) and willow (*Salix* species) are also common. Areas with poor drainage contain white spruce and tall willow swamps, sedge fens, or marshes. Sections of old growth spruce forest can be found along river valley bottoms. There is an especially significant band of this along Keily Creek.

The third zone, the Boreal Altai Fescue Alpine (BAFA), is found at elevations greater than 1,800 metres. Vegetation consists mainly of shrubs, heathers, herbs, mosses, and lichens. White and Engelmann spruce (*Picea engelmannii*) and sub-alpine fir where they occur usually exhibit a stunted growth form due to the harsh environmental conditions.

All three of the BEC subzones are well-represented in the protected areas system (>20% protection), with Redfern-Keily Park protecting only small percentages of each - 2.8%, 4.0% and 2.0%, respectively (Table 2). From a climate change and species migration perspective, however, Redfern-Keily Park's true value is that there is strong connectivity for these three subzones within multiple parks and protected lands that are all in close proximity to each other.

**Table 2: Biogeoclimatic Ecosystem Classification (BEC) representation**

BEC Zone	BEC Subzone	Area of BEC Subzone in the Park (hectares)	Area of BEC Subzone Protected in the Province (hectares)	Percent of BEC Subzone Protected in the Province that is Contributed by the Park	Percent BEC Subzone Protected in the Province
Spruce-Willow-Birch	SWBmk	30,256	1,085,687	2.8%	26.1%
	SWBmks	15,440	382,153	4.0%	23.5%
Boreal Altai Fescue Alpine	BAFAun	34,023	1,698,463	2.0%	27.8%

Nine species of at-risk vascular plants (2 red-listed and 7 blue-listed<sup>10</sup>) have been documented within the park. In the vicinity of Fairy Lake they include the blue-listed Davis' locoweed (*Oxytropis campestris* var. *davisii*), Hornemann's willowherb (*Epilobium hornemannii* ssp. *behringianum*), Porsild's draba (*Draba porsildii*), and marsh felwort (*Lomatogonium rotatum*). East of Redfern Mountain they include the red-listed pink campion (*Silene repens*), and the blue-listed abbreviated bluegrass (*Poa abbreviata* ssp. *Pattersonii*), low sandwort (*Arenaria longipedunculata*) and rock-dwelling sedge (*Carex petricosa*). The red-listed smooth draba (*Draba glabella*) was found in both locations.



Ecosystem mapping has not been completed for the park, so there is no information available on at-risk ecological communities.

#### 2.2.4 Wildlife

Redfern-Keily Park, in association with other proximal protected areas and land management measures, protects large mammal predator/prey systems. Ungulates, such as Caribou (Northern Mountain population, specifically the Pink Mountain subpopulation - blue-listed), Elk, Moose, Mountain Goat, Mule Deer (*Odocoileus hemionus*), Stone's Sheep and White-Tailed Deer (*Odocoileus virginianus*), use the area as year-round habitat. Protecting habitat for ungulates is one of the key roles of the park. The ongoing health of those wildlife populations is important from conservation, cultural and recreation perspectives. Large carnivores, such as American Black Bears

<sup>10</sup> At-risk species and ecological communities include those that are extirpated, endangered or threatened species (Red List) or of special concern (formerly called vulnerable) (Blue List).

(*Ursus americanus*), Grey Wolves and Grizzly Bears (blue-listed), can also be found in the park.

There is a long history of predator management (specifically for Grey Wolf) having been used as a management tool in the park. BC Parks works with the ministry responsible for wildlife management to maintain consistency, where appropriate, with wildlife management initiatives and policy. Currently, provincial policy<sup>11</sup> supports the use of predator management to protect livestock and species at risk (i.e. Caribou).

A wild, free-ranging population of introduced Plains Bison (*Bos bison bison*) occasionally moves into the southeast corner of the park in the Trimble Lake area. Plains Bison are considered to be outside their normal range in Redfern-Keily Park; however they are within the historical range of Wood Bison. Bison find abundant food in the many natural meadows and areas that are in a state of post-fire regeneration. Plains Bison was assessed as Threatened by COSEWIC<sup>12</sup> in 2013, but has not yet been added to Schedule 1 of the *Species at Risk Act*.

Mineral licks are important features in the park. Ungulates congregate in these areas to ingest a variety of chemical components that are concentrated on the surface. Wet mineral licks are formed due to water movement (gravitational or upwelling) that concentrates materials leached from the surrounding rocks and soils. Dry licks are often formed through colluvial or aeolian exposure. Although they differ in their respective concentrations, wet and dry licks are natural sources of sodium, carbonates, magnesium, and sulfate.

Smaller furbearing mammals known as mustelids (e.g., blue-listed Fisher (*Pekania pennant*) and American Marten (*Martes americana*)) live in the old-growth forests associated with valley bottoms. The blue-listed Wolverine (*Gulo gulo luscus*) can be found throughout the park ranging from lower valley bottoms to alpine meadows.

Redfern-Keily Park also provides important habitat for many species of birds; the avian community changes seasonally as migratory species either nest or pass through the area. A regionally significant resting site for the Pacific Loon (*Gavia pacifica*) is known to exist within the park.

In addition to the above-mentioned wildlife, several species of rodents, reptiles, and amphibians, as well as many species of invertebrates, can also be found in the park.

### 2.2.5 Fish

Redfern-Keily Park has indigenous fish populations typical of many cold water systems. Redfern Lake contains Lake Trout (*Salvelinus namaycush*), Lake Whitefish (*Coregonus*

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<sup>11</sup> Management Plan for the Grey Wolf (*Canis lupus*) in British Columbia, 2014:

[http://www.env.gov.bc.ca/fw/wildlife/management-issues/docs/grey\\_wolf\\_management\\_plan.pdf](http://www.env.gov.bc.ca/fw/wildlife/management-issues/docs/grey_wolf_management_plan.pdf)

<sup>12</sup> The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) assesses the conservation status of species under the federal Species at Risk Act. Categories are extinct, extirpated, endangered, threatened, or special concern.

*clupeiformis*) and Pygmy Whitefish (*Prosopium coulterii*) (Table 3). The creeks and rivers have indigenous populations of Arctic Grayling (*Thymallus arcticus*), blue-listed Bull Trout (*Salvelinus confluentus*) and Mountain Whitefish (*Prosopium williamsoni*).

**Table 3: Fish species distribution in Redfern-Keily Park**

Lake or waterway name	Fish Species							
	Arctic Grayling	Bull Trout	Lake Trout	Lake Whitefish	Mountain Whitefish	Pygmy Whitefish	Rainbow Trout	Slimy Sculpin
Besa River	X	X			X		X	
Fairy Lake							X	X
Keily Creek		X			X			X
Nordling Creek							X	
Petrie Creek	X	X			X			
Redfern Lake			X	X		X	X	
Trimble Lake	X				X		X	

Trimble Lake contains Arctic Grayling and Mountain Whitefish that were illegally stocked into Trimble Lake in 1959. Redfern, Fairy, and Trimble lakes were stocked with Rainbow Trout (*Oncorhynchus mykiss*) in 1984 and are well-known for Rainbow Trout fishing. These fish have spread to the Besa River and at least two of its tributaries: Neves Creek and Nordling Creek.

There are several waterfalls in the park that act as barriers to fish migration. Two sets of falls downstream of Fairy Lake isolate Fairy Lake from the rest of the Besa River system, and Sikanni Falls restricts fish passage to Trimble Lake and parts of the Sikanni Chief River.

Bull Trout require specific spawning habitat, which is found within Redfern-Keily Park. Adult Bull Trout winter in the lower Prophet River mainstem and move to spawning tributaries by late summer. Petrie Creek has been identified as a potentially important spawning area for Bull Trout, as has Keily Creek to a lesser extent.

Mature Arctic Grayling use several waterways in the park for post-summer refuge and they are especially sensitive to over-harvest at this time. Mountain Whitefish have been known to spawn in the Besa River main stem.

### 2.3 Prescribed Fire

Ecosystem dynamics in the northern Rocky Mountains are greatly influenced by disturbances from fire that drive ecosystem renewal and change. Fire can have a variety of effects on ecosystems. In forested areas fires are often considered to be either stand replacing or stand maintaining. In grassland ecosystems fire generally helps to maintain the grasslands through the removal of woody vegetation that cannot withstand repeated burning.

Prescribed fire is a management tool that can be applied to ecosystems for specific purposes that includes ecosystem maintenance or restoration, wildlife habitat

enhancement, forage production for domestic animals, and wildfire prevention. Throughout northeastern British Columbia, prescribed fire has been used by First Nations, guide outfitters, and government to enhance wildlife habitat and enhance forage for range purposes.

The Fort St. John LRMP gives the following direction regarding livestock grazing in the park “*identify and manage appropriate grazing management activities (e.g., burns)*”. Range tenures in Class A parks listed in Schedule D of the *Protected Areas of British Columbia Act* are managed by the Range Program under the *Range Act*.

Range tenures held by guide outfitters can allow for prescribed burning to maintain forage for horses that are used in their operations. Because the range tenures were in place prior to the park establishment, Redfern-Keily Park is listed in Schedule D the *Protected Areas of British Columbia Act*<sup>13</sup>, allowing range tenures to continue in the park. These range tenures are administered under the *Range Act* by the Range Program and managed under a Memorandum of Understanding (MOU) with BC Parks, which also has a policy and guidance document. The agreement between BC Parks and the Range Program allows for prescribed fires if they are part of a Range Use Plan and are consistent with park values and/or a park management plan.

The Muskwa-Kechika wildlife management plan gives management direction that habitat “*should be managed within the natural range of variability*”,<sup>14</sup> while also giving direction that prescribed fire be used in key habitats to maintain early seral grass or shrub areas for Stone’s Sheep, Moose and Elk.

In Redfern-Keily Park, prescribed fire has been used by staff in the ministry responsible for wildlife management to enhance ungulate winter range habitat through the maintenance of high-elevation early seral<sup>15</sup> grassland habitat. The north side of Trimble Lake and the north side of Keily Creek, just before the confluence with the Besa River, are two areas that historically have been burned with prescribed fire.

## 2.4 Climate Change

The effects of climate change on specific ecosystems and wildlife populations within British Columbia are not clearly understood at this time. However, research indicates that ecological communities will change along elevation and geographic gradients, causing shifts in plant and wildlife composition for given areas. Large, contiguous protected areas are known to be important to allow for species and population movement and refugia during these times of change.

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<sup>13</sup> The number of Animal Unit Months (AUMs) for each range tenure in the park is capped at that authorized for the range tenure at time of park establishment.

<sup>14</sup> The Muskwa-Kechika Wildlife Management Plan defines Natural Range of Variability as “the range of variability in ecological conditions that occurred before European settlement”.

<sup>15</sup> Vegetation succession can result in less palatable woody vegetation dominating some areas.

Research indicates that retreating glaciers are one of the most immediately evident effects of climate change in northern regions. Though the specific impact to glaciers within the park have not been measured, higher elevation glaciers may be more resistant to change than lower elevation glaciers because of lower temperatures at higher elevations. Precipitation and hydrology effects of climate change and smaller glaciers could include reduced summer moisture, reductions in water inputs to wetland areas, reduced late summer stream flows and changed vegetation patterns.

## **2.5 Cultural Values**

Redfern-Keily Park has a diverse cultural heritage background. Of the Treaty 8 signatories the park falls within the traditional territory of the Prophet River, Blueberry River, Doig River, Halfway River, and West Moberly First Nations; as well as the Tsay Keh Dene First Nation and the Kaska Dena Council First Nation community of Kwadacha.

Historically and presently, summer and fall activities include hunting, fishing, plant collecting, and the preparation of food for long-term storage for the upcoming winter months. Some First Nations people traditionally broke up into smaller bush communities during the winter and spring seasons.

There are many areas of cultural significance in the park. The areas around Redfern and Trimble lakes contain many cultural features including a cabin site, a cache, a camp, trails, refuse and lithics. The Besa River-Keily Creek confluence was a high-use camping area for several different groups. The Keily Creek area is of special concern to First Nations because it is considered sacred and a burial site is located there.

Post-contact cultural values are also significant. The area was historically used for hunting and trapping to supply furs to the Hudson's Bay Company trading posts in Fort St. John and Hudson's Hope. In addition, several historic surveying expeditions took place in northeast British Columbia, including the park and surrounding areas. Knox McCusker, a Dominion land surveyor, measured glaciers and snowfields in the Mount Ulysses area in 1932. Another well-known expedition, led by Bedaux, camped at Redfern Lake in 1934 and parts of their trail leading north can still be found within the park.

## **2.6 Recreation Values**

### **2.6.1 Recreation Opportunities**

Due to the existence of established trails within the park, Redfern-Keily is one of the more accessible and frequently used areas in the Muskwa-Kechika Management Area. The park also has some of the most scenic landscapes in the Northern Rocky Mountains. The most popular activities include hunting, fishing, hiking, camping, boating, photography, ORV use, snowmobiling, and wildlife and nature viewing. All of these uses are long-standing and predate park establishment.

The two trail systems into the park (Redfern Lake Trail and Sikanni River Trail) are very important recreational features. Both trails can be accessed on foot or with



snowmobiles, horses, mountain bikes or dogsleds. Motorized vehicles (except snowmobiles) can only enter the park using the Redfern Lake Trail; motorized access along the Sikanni River Trail is not allowed past where the trail meets Trimble Creek. For more info on Access, please see Sections 1.7 and 2.6.2. Several unmarked trails exist within the park, especially near Redfern Lake, that can be used by hikers, snowshoers and horseback riders.

In winter, snowmobiling into Redfern Lake is by far the most common recreational activity in the area, while in summer the activities are more varied. Cross-country skiing occurs in many locations. One of the better cross-country skiing areas is along the shores of Redfern and Fairy lakes; however, no tracks are set and the trail up to Fairy Lake is steep.

Guide outfitting is a long-standing activity within the Redfern-Keily Park area. The Fort St. John LRPM recognizes this as an acceptable use within Redfern-Keily Park.

There are currently three commercial recreation operations that provide guided recreation opportunities in the park. The guided opportunities include angling, canoeing, cycling, horseback riding, hunting, hiking, boating and snowmobiling tours, snowshoeing, cross-country skiing, and nature appreciation. Three grazing tenures exist in and around Redfern-Keily Park to accommodate commercial backcountry recreation horse use. Guide outfitter companies have private client cabins at three different sites within the park. Overnight stays for their clients are accommodated within the terms of the operator's park use permit.

Visitors must keep in mind when planning for their trips that the park is a remote wilderness area. Seven public campsites are located within the park along Redfern Lake Trail (an additional 19 campsites are located along the trail outside of the park boundary). These are very basic and can provide camping opportunities for 5-7 small groups. The park also has two cabins that are operated as first-come-first-served public-use facilities. The cabins can accommodate up to 12 people. The Northland Trail Blazers Snowmobile Club is under a volunteer agreement to help BC Parks maintain the cabins. As the public facilities are limited, it is advisable to come prepared to be self-sufficient; bringing proper camping, cooking, food and water supplies. There are no communication facilities within the park so rescue services are not easily contacted.



Though visitor use statistics are not available, it is known that there are specific areas and times of year when use levels are higher. The main access trails, as well as the areas



surrounding the three lakes, have the highest levels of use in the park. The hunting season brings in the greatest number of people, especially during the September long weekend. During that time the public campsites and private guide outfitter cabins see the most use, and based upon public feedback that BC Parks staff receives, it is thought that most of the designated camping areas are being used to their full capacity. June is another popular time of the year for fishing enthusiasts when the ice melts from the lakes. Winter use by snowmobilers can also be high. During non-peak times, this park can provide a completely solitary wilderness experience.

### 2.6.2 Aircraft Access

The park can also be accessed by fixed wing aircraft, both floatplane and wheeled, and helicopters. The commercial operators often use floatplanes to fly in their guests. Recreational aircraft users are encouraged to provide flight plans to BC Parks.

## 3.0 Management Direction

### 3.1 Management Objectives and Strategies

#### 3.1.1 Geology and Landforms

Despite existing protections provided by the *Park Act*, some of the landform features in Redfern-Keily Park (e.g., hoodoos) could be damaged by park users. Impacts to those features would detract from the spectacular scenic beauty of the area and could result in decreased visitation to the park.

Management Objective	Management Strategies
Protect the landform features that contribute to the scenic beauty within the park.	<ul style="list-style-type: none"> <li>If/when feature damage is noted, an action plan will be developed and implemented which aims at repairing and/or preventing further damage (this action plan may include access restrictions).</li> </ul>

#### 3.1.2 Water

The water values in the park are relatively pristine. Potential threats to water quality include erosion and the introduction of contaminants. If levels of erosion increase in areas where trails cross streams, there may be erosion and sedimentation concerns.

Management Objective	Management Strategies
Maintain the natural quality of the freshwater values.	<ul style="list-style-type: none"> <li>Provide the public with information on minimizing impacts to water quality in the backcountry through the Leave No Trace section on the BC Parks website.</li> </ul>

Management Objective	Management Strategies
	<ul style="list-style-type: none"> <li>Encourage research and assessment focused on water quality monitoring to aid in determining impacts from either point source or non-point source contaminants, particularly in higher use recreation areas.</li> </ul>

### 3.1.3 Vegetation

Detailed ecosystem mapping has not been completed for Redfern-Keily Park. This detailed ecosystem mapping would be the basis of increasing the knowledge of at-risk ecosystems and wildlife habitat inventories.

Areas of Redfern-Keily Park that are more readily accessible to the public are considered to be at greater risk when it comes to potential damage to vegetation.

- During peak visitation seasons (e.g., hunting season) impacts to vegetation from camping occurs in new areas because developed sites are at full capacity.
- In the vicinity of camping areas, damage to surrounding vegetation occurs as timber is illegally harvested for firewood<sup>16</sup>.
- The establishment of invasive plant populations along travel corridors outside the park, and in the park itself, is an increasing risk in northeastern British Columbia.

Additionally, impacts to vegetation from recreation activities in areas that are not easily accessed are unknown. Possible impacts to sensitive areas (i.e., alpine or sub-alpine areas and blue-listed species) are of particular concern.

Management Objective	Management Strategies
Maintain vegetation and plant communities for ecological integrity and visual aesthetics.	<ul style="list-style-type: none"> <li>Conduct inspections of camping areas to ensure firewood is being obtained in accordance with park regulations for fires in the backcountry (e.g., only dead wood laying on the ground can be used for fires). Consider educational signage at boundary if needed. The prohibition on ringing/girdling or cutting of living trees will be strictly enforced.</li> <li>Consider the authorization of cutting dead standing wood for firewood through a Park Use Permit and following the BC Parks Impact Assessment process, including site assessments where appropriate.</li> </ul>

<sup>16</sup> The Park, Conservancy and Recreation Area Regulation regulates that backcountry park users may only use vegetation that is lying dead on the ground to start fires.

Management Objective	Management Strategies
	<ul style="list-style-type: none"> <li>• Conduct Backcountry Recreation Impact Monitoring (BRIM) at Redfern Lake (and in other areas on an as needed basis) and adjust management actions to ensure natural and cultural values are not being compromised by recreation use levels, particularly during peak season. The BRIM process will be used to determine the need for, and location of, new backcountry camping areas.</li> </ul>
<p>Increase knowledge of ecosystems and protect at-risk plant communities and species.</p>	<ul style="list-style-type: none"> <li>• Work with First Nations communities, other ministries, community groups and/or educational institutions to support inventories and studies aimed at better understanding the distribution of plant species and ecosystems and their ecology; including how they will respond to environmental changes such as climate change (e.g. BC Parks Long-term Ecological Monitoring Program, First Nations Land Guardian programs).</li> <li>• Monitor activities occurring in areas containing known at-risk plant species to assess their potential negative impacts, including alpine areas and the areas where blue-listed species are found in the vicinity of Fairy Lake. Limit activities as necessary.</li> <li>• Prevent damage to riparian areas by maintaining the existing bridges at the large water crossing on Redfern Lake Trail.</li> <li>• Prevent damage to riparian vegetation by encouraging horse users to adhere to the horse riders’ backcountry ethics that have been developed for the park, which advocates resting horses away from the water’s edge<sup>17</sup>.</li> </ul>
<p>Prevent the establishment or spread of invasive species.</p>	<ul style="list-style-type: none"> <li>• Require commercial operators, through park use permits, and encourage park visitors to adhere to BC Parks Invasive Plant Best Management Practices<sup>18</sup> and guidance in the regional hunting regulations, including using local weed free hay, pelletized and processed feed for pack animals.</li> <li>• Encourage commercial operators and other park visitors to report occurrences of invasive species.</li> </ul>

<sup>17</sup> For guidance on Horse Riders Backcountry Ethics, visit <http://www.env.gov.bc.ca/bcparks/explore/parkpgs/redfern/trails.html#ethics>

<sup>18</sup> Best management practices for invasive plants in Parks and Protected Areas in BC <http://www.env.gov.bc.ca/bcparks/conservation/docs/iscbc-bc-parks-bmp-20180412.pdf>

Management Objective	Management Strategies
	<ul style="list-style-type: none"> <li>Monitor invasive species establishment, review management actions and explore treatment options<sup>19</sup>.</li> </ul>

### 3.1.4 Wildlife

Ensuring the protection of wildlife and wildlife habitats is a key role of Redfern-Keily Park; however, the remoteness of Redfern-Keily Park presents challenges in determining wildlife abundance, key wildlife habitat locations, engaging in regular regulation enforcement and effectiveness monitoring of wildlife management techniques. Habitat mapping for important wildlife species, as recommended in the Fort St. John LRMP, has not been completed for the park.

The Northern Mountain population of Caribou is provincially blue-listed and federally classified by COSEWIC as Special Concern, and the Pink Mountain subpopulation may be declining in size. Caribou are susceptible to threats such as habitat loss and alteration, altered predator/prey dynamics and disturbance throughout their range. Habitat management activities that reduce old and mature forests, and change predator/prey dynamics<sup>20</sup>, can enhance habitat for other ungulate species which may negatively impact Caribou.

The Plains Bison is an introduced species that could become a concern in the park. Bison exhibit highly territorial behaviours and will actively prevent other wildlife species from using an area they are currently occupying. This territorial behaviour serves to limit habitat available for native ungulate populations. The ministry responsible for wildlife management collaborates with BC Parks on any changes to hunting regulations within the park. There is currently limited entry hunting (LEH) for Plains Bison in the park, but this may change to a general open season (GOS) if the population increases or moves outside its core area.

Many activities that park visitors pursue are integrally tied to the area's abundance and variety of wildlife, such as hunting, trapping and nature appreciation.

Management Objective	Management Strategies
Increase knowledge of wildlife populations, distributions and habitats, and ensure that all activities are managed to maintain healthy wildlife populations and	<ul style="list-style-type: none"> <li>Work with First Nations communities, other ministries, community groups and/or educational institutions to encourage wildlife inventories and studies aimed at better understanding species' needs; including how the wildlife composition will evolve in response to environmental</li> </ul>

<sup>19</sup> The use of herbicides in parks is only considered if there is no alternative treatment that has proven to be successful and if there is a significant threat to the ecological integrity of the park, as well as the surrounding area.

<sup>20</sup> The report "Role of Protected Areas in Caribou Management in British Columbia" gives details of the issues surrounding Caribou management, with recommendations for Caribou management in the protected area system.

Management Objective	Management Strategies
minimize disturbance to the ecosystem	<p>changes such as climate change, and natural and prescribed fire.</p> <ul style="list-style-type: none"> <li>• Work with partners and other government agencies to identify and map locations of listed or significant species (e.g. Caribou, Elk, Moose, Mountain Goat, Grizzly Bear).</li> <li>• Recommend the use of the BC Conservation Data Centre Data Submission process to collect informal wildlife information from First Nations, commercial operators and other park visitors<sup>21</sup>.</li> <li>• Coordinate with the Muskwa-Kechika Management Area wildlife management plan (two documents)<sup>22</sup> to guide wildlife management decisions within the park, as appropriate.</li> <li>• Develop a consistent approach with the ministry responsible for wildlife management for collaboration on wildlife management initiatives and policy (e.g. predator management).</li> <li>• Limit motorized access to high capability Mountain Goat and Caribou habitat by only allowing motorized use in the Nature Recreation Zone. Implement greater spatial or seasonal restrictions as necessary and based on scientific rationale.</li> </ul>
Prevent impacts of non-native species to native wildlife populations and their habitats.	<ul style="list-style-type: none"> <li>• Work with the ministry responsible for wildlife management to determine if Plains Bison are significantly impacting native wildlife populations or their habitats. If there are significant negative impacts, review the hunting regulations and determine if any changes are required. Ensure management activities do not create additional habitat in the park that Bison could occupy.</li> <li>• To protect native species from competition or disease introductions, llamas and other exotic animals are not permitted within the park; only horses and mules are permitted for recreational purposes.</li> </ul>
Maintain current trapping opportunities subject to conservation objectives.	<ul style="list-style-type: none"> <li>• Monitor trapping harvest to ensure conservation objectives are met.</li> </ul>

<sup>21</sup> <https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/conservation-data-centre/submit-data>

<sup>22</sup> <http://www.muskwa-kechika.com/management-area/legislation-planning>

### 3.1.5 Fish and Aquatic Life

Redfern, Fairy and Trimble lakes were stocked with Rainbow Trout prior to park establishment, resulting in the lakes being popular for fishing. There have not been any recent fishery studies or research into other aquatic species in the park.

Management Objective	Management Strategies
Increase knowledge and understanding of aquatic values, and encourage needed research.	<ul style="list-style-type: none"> <li>• Work with educational institutions and First Nations to plan and implement aquatic species studies in Redfern, Fairy and Trimble lakes and Petrie and Keily creeks.</li> </ul>
Protect and maintain the natural diversity and productivity of aquatic ecosystems while maintaining a low intensity, high quality fishery.	<ul style="list-style-type: none"> <li>• Identify and map locations of listed or significant species and areas of critical habitat. Focus initially on areas that could be negatively impacted by recreation; and Petrie and Keily creeks (potentially important spawning areas for Bull Trout and a post-summer refugia for mature Arctic Grayling).</li> <li>• Monitor recreational fishing activities; focusing on Redfern, Trimble and Fairy lakes. Collect information regarding species caught, numbers caught, and size of fish. Limit activities as necessary to avoid negative impacts to native fish populations.</li> <li>• Investigate management strategies to stop the spread of introduced non-native Rainbow Trout.</li> </ul>

### 3.1.6 Cultural Values

While First Nations cultural values are known to be present in the park, information on these values is limited. This lack of information increases the risk of unintentional damage to sensitive sites.

Management Objective	Management Strategies
Gain a better understanding of cultural values, archaeological sites, spiritual sites and traditional use locations in order to better ensure protection.	<ul style="list-style-type: none"> <li>• Support efforts to conduct historical and ethnographic research and cultural heritage field inventories as appropriate (e.g. funding opportunities or permits).</li> <li>• Work with First Nations to implement protective measures where threats to known cultural values are identified.</li> </ul>
Promote stewardship and awareness of cultural values and First Nations use in the park.	<ul style="list-style-type: none"> <li>• Support, when possible, opportunities for First Nations traditional, sustenance and harvesting activities.</li> <li>• Support, when possible, opportunities to develop cultural interpretive material for the park.</li> </ul>

Management Objective	Management Strategies
	<ul style="list-style-type: none"> <li>Pursue opportunities to incorporate traditional knowledge into park management.</li> </ul>

### 3.1.7 Access Management

Because access can have a substantial impact on a park’s conservation, recreation and cultural values, access management is one of the most important strategies that BC Parks can utilize to manage those values. For Redfern-Keily Park, access is managed by having (1) very limited summer motorized access and a motorized access weight restriction (Redfern Lake Trail only); (2) only a basic system of trails (for both motorized and non-motorized users); and (3) limits on commercial aircraft access. This combination has allowed BC Parks to be able to ensure the wilderness integrity of the park is protected while allowing visitors to enjoy the natural beauty that the park has to offer.

However, use of the access trails has increased over the past decade and the condition of the access trails continues to deteriorate. One of the primary reasons appears to be that motorized recreation vehicles (e.g. ORV, side-by-side, snow bike, e-bike) are more readily available to the public and technological advances in those vehicles are resulting in greater numbers, or sometimes less experienced park users, being able to access the park. Both Redfern Lake Trail and Sikanni Chief River Trail allow for motorized access outside of the park, whereas only Redfern Lake Trail allows for motorized access within the park<sup>23</sup>. In 2018, changes to the Public Access Prohibition Regulation, under the *Wildlife Act*, changed the weight restrictions of ORVs from 500 kilograms to 750 kilograms. Use of machines that exceed the weight restriction for the trail is not compliant with the Muskwa-Kechika Access Management Area route regulation and can lead to additional trail damage.

The condition of the Redfern Lake Trail, in particular, is of concern. Both BC Parks and the ministry responsible for the portion of the trail outside of the park receive annual complaints regarding the trail’s condition. Many members of the public would like to see improvements made along the Redfern Lake Trail, both inside and outside of the park. Only the last 15 kilometres of the trail is within the park. The ability to maintain Redfern Lake Trail (or make improvements) is complicated by terrain instability and accessibility.

Trail/access improvements, particularly those outside of the park, would likely result in increased visitation. For Redfern-Keily, the Fort St. John Land and Resource Management Plan recommended that the majority of the park be managed to maintain

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<sup>23</sup> For non-winter only. In winter snowmobile use is permitted in an expanded area of the park, please refer to [Figure 5](#).



its wilderness and wildlife values, and that human use could be restricted to protect and manage these values.

Illegal trail development is a growing concern in Redfern-Keily Park: branching from existing trails within the park and branching off industrial roads that may be developed in the vicinity of the park boundary. There is unauthorized ORV trail development occurring to Fairy Lake and into the park from the non-motorized section of the Sikanni Chief River Trail that leads into the park, as well as other locations.

Management Objective	Management Strategies
<p>Manage access to protect the natural, cultural and recreational values of the park.</p>	<ul style="list-style-type: none"> <li>• Work with the ministries responsible for managing and maintaining the access trails outside the park to understand user levels and condition of the Redfern Lake and Sikanni River trails and to collaborate on environmental or safety concerns in order to maintaining safe and sustainable access to the park.</li> <li>• Continue to enforce access restrictions for the Muskwa-Kechika Management Area identified within the <i>Wildlife Act</i> Public Access Prohibition Regulation (see Sections 1.8 and 2.6.1 and Figure 4) through compliance and education.</li> <li>• New methods of air access (i.e. Unmanned Air Vehicles / drones) will not be allowed unless authorized under permit for commercial filming or research.</li> <li>• Encourage industrial users in adjacent Resource Management Zones to develop industrial accesses away from park boundaries to minimize any impacts to the park. Encourage monitoring of any changes to industrial access to determine the effects of those changes on natural, cultural and aesthetic values.</li> </ul>
<p>Maintain an adequate level of access for users.</p>	<ul style="list-style-type: none"> <li>• Allow motorized forms of access to continue in compliance with the Muskwa-Kechika Management Area identified within the <i>Wildlife Act</i> Public Access Prohibition Regulation (see Sections 1.8 and 2.6.1 and Figure 4). Limitations may be required to support conservation objectives.</li> <li>• Mountain bike and Class 1 e-bike access is restricted to Redfern Lake Trail and Sikanni River Trail, which ends at Trimble Creek, outside of the park. The Sikanni River Trail is restricted to mountain bike and Class 1 e-bike only. Mountain bikes and all classes of e-bikes are permitted on the Redfern Lake Trail.</li> <li>• The Redfern Lake Trail will be monitored and maintained to address any safety and environmental concerns, but no major upgrades will be considered.</li> </ul>

Management Objective	Management Strategies
	<ul style="list-style-type: none"> <li>Deactivate unauthorized trails.</li> <li>Maintain bridges at large water crossings on Redfern Lake Trail. Construct new bridges only to maintain access routes or protect park values.</li> </ul>

### 3.1.8 Recreation Management

Redfern-Keily Park provides a wide range of recreational opportunities for park users (from naturalists to hunters). All of the activities are long-standing and pre-date the establishment of the park. Redfern-Keily Park is to be maintained as a wilderness area. This means that visitor use levels need to be kept relatively low. Promotion of the park must therefore be minimal.

The Fort St. John LRMP directed that the existing variety of recreational activities be retained, and that a range of wilderness recreation opportunities be available in the park. It also recommended that backcountry facilities be provided in suitable areas, while maintaining the area in a natural or natural appearing condition.

To ensure enjoyment and safety of the public, users need to be aware of the different allowable uses in the park (and along the multi-use access trails) and respect that other users have different needs. The different use types also result in risks that all users should be aware of (e.g., during hunting seasons, visitors should be aware that areas around hunting kills are higher risk for bear encounters).

Continuation of commercial recreation opportunities is very important as it allows for a different park experience and type of park user. Continuation of existing commercial recreation opportunities was supported by the Fort St. John LRMP.

Packed trails on snow can facilitate access by wolves by easing travel conditions. This can lead to increased predation if the trails are close to Caribou and Mountain Goat winter ranges. Snowmobiling can also displace wildlife from their preferred habitat areas, causing them to use more energy and have less optimal food and cover available.

Management Objective	Management Strategies
Maintain the wilderness quality of the park and protect the natural and cultural values while providing wilderness recreation opportunities.	<ul style="list-style-type: none"> <li>Educate visitors about minimum impact camping and backcountry wilderness ethics at all sites in the park to avoid site degradation and minimize human-wildlife conflicts.</li> <li>Allow continued use of the park for hunting, fishing, snowmobiling, ORVing and horse use; restrictions will be implemented as necessary to protect park values.</li> </ul>

Management Objective	Management Strategies
	<ul style="list-style-type: none"> <li>• During the winter, allow snowmobiles in the Nature Recreation Zone only (for the winter timing window, see Figure 5).</li> <li>• Enforce zoning and trail restrictions (e.g., do not allow ORV and snowmobile access within the Wilderness Recreation Zone).</li> <li>• Encourage research aimed at studying the effects of motorized traffic on wildlife populations and other park users to limit or reduce negative impacts. Adopt proven management strategies to address impacts as feasible.</li> </ul>
Enhance visitor awareness of risks associated with recreation in the park.	<ul style="list-style-type: none"> <li>• Provide and promote bear awareness information including the BC Parks brochure<sup>24</sup> to reduce potential for negative bear/human interactions.</li> <li>• Educate users to be aware the trails are multi-use and promote safe use of the trail for all users.</li> </ul>
Increase visitor awareness of park values and backcountry etiquette.	<ul style="list-style-type: none"> <li>• Promote the “leave no trace” wilderness ethic for public lands. An adapted version specifically geared towards horse users is available on the Redfern-Keily Park website<sup>25</sup>.</li> </ul>
Ensure commercial recreation use levels and management practices protect natural and cultural values while respecting business needs of the commercial operators in accordance with the Fort St. John Land and Resource Management Plan.	<ul style="list-style-type: none"> <li>• Continue to collect information from commercial operators regarding use levels, locations and management concerns.</li> <li>• Ensure park use permit holders are aware of park conservation objectives and do not act or condone guests acting in a manner contrary to those objectives.</li> <li>• Take advantage of appropriate opportunities to coordinate with park use permit holders to accomplish conservation and recreation objectives (e.g., park use permit holders to monitor recreational fishing activities).</li> </ul>
Minimize the environmental and visual impacts of permitted facilities.	<ul style="list-style-type: none"> <li>• Any new, or changes to existing, commercial facilities/structures such as cabins will only be permitted in the Nature Recreation Zone and will follow the relevant BC Parks policies, and direction in the Fort St. John Land and Resource Management Plan.</li> <li>• All structures are required to reflect the wilderness character of the park.</li> </ul>

<sup>24</sup> <http://www.env.gov.bc.ca/bcparks/conserve/bearsandcougars.pdf?v=1444863686822>

<sup>25</sup> To view Horse Riders’ Backcountry Ethics visit <http://www.env.gov.bc.ca/bcparks/explore/parkpgs/redfern/trails.html#ethics>.

### 3.1.9 Prescribed Fire

The agreement between BC Parks and the Range Program, administered by the ministry responsible for range, considers allowing prescribed fires if they are identified in a Range Use Plan and are consistent with park values and/or a park management plan. Plans used to manage prescribed fire need to be clear on the purpose of the burn because it will inform the BC Parks Impact Assessment and decision making process.

With climate change predictions forecasting warmer drier summers for the park area and potentially novel ecosystems, wildfire frequency may increase (both in scale, frequency, and intensity) and post-fire vegetation dynamics may also change. This highlights the need to be adaptive when considering prescribed fire in the park in the future.

Management Objective	Management Strategies
<p>Use fire as appropriate to manage wildlife habitat and forage production considering the impacts and benefits to all wildlife species and ecosystems.</p>	<ul style="list-style-type: none"> <li>• Work with other agencies, First Nations, academia, relevant stakeholders and local community groups to continue to research the history and future objectives of prescribed burning in the park.</li> <li>• Work with stakeholders, First Nations, and the relevant ministries responsible for managing wildlife, range, and wildfire to identify clear objectives and strategies for prescribed fire in the park, by:               <ul style="list-style-type: none"> <li>○ Considering prescribed fire for maintenance of early seral habitat and forage production where previously used, subject to the BC Parks Impact Assessment process and associated policy;</li> <li>○ Conducting research about fire history and natural range of variability in the park;</li> <li>○ Adapting as necessary in the future, based on research findings, climate change, and government policy. This may include an amendment to the management plan.</li> </ul> </li> <li>• Do not use prescribed fire to create early seral habitat where there has not been previous prescribed burning for this reason.</li> <li>• BC Parks will work collaboratively with the ministries responsible for range, wildlife, and wildfire to evaluate prescribed burn proposals and coordinate prescribed burning objectives across the larger landscape and park values (e.g., minimize creation of non-native bison habitat).</li> </ul>

Management Objective	Management Strategies
	<ul style="list-style-type: none"> <li>Ensure any proposed prescribed burns for wildlife habitat enhancement are assessed using the BC Parks Impact Assessment process.</li> </ul>
Work collaboratively with the Range Program to manage <i>Range Act</i> tenures.	<ul style="list-style-type: none"> <li>Follow the Memorandum of Understanding (MOU) for Administering and Managing <i>Range Act</i> Agreements in Parks and Protected Areas, and the associated Policy and Guidance.</li> <li>Work with range tenure holders and ministry staff responsible for range management to ensure range use is in alignment with maintaining healthy ecosystems that have a disturbance regime that closely mimics natural disturbance regimes in terms of frequency and severity of disturbance.</li> </ul>
Information on the results of management activities is collected.	<ul style="list-style-type: none"> <li>Ensure monitoring is done to determine if burn plan objectives are met and to record any unintended impacts on ecosystems and wildlife.</li> </ul>

### 3.1.10 Climate Change

The most consistently recommended approach for adapting to climate change is to maintain natural connectivity across the landscape. Redfern-Keily Park relies on the movement of species across its borders. Working with adjacent land managers to maintain connectivity across the landscape is one of the most important actions that can be taken, particularly in light of the potentially rapid changes that may be brought about by climate change.

Management Objective	Management Strategies
Mitigate or lessen the effects of climate change on the park and its values.	<ul style="list-style-type: none"> <li>Work with land managers of adjacent areas to maintain connectivity across the landscape to allow for species movement.</li> <li>Encourage research/monitoring of climate change to determine the effects on park and protected area values and ecosystem functioning and appropriate actions for response.</li> </ul>

## 3.2 Zoning Plan

In general terms, a zoning plan divides a park into logical management units within which certain activities/uses are permitted and a particular set of management

objectives apply. Zoning is often used to physically separate incompatible activities or uses within the park and provides visitors and managers with a quick visual representation and appreciation of how a particular park is managed. Zones are designed to reflect the physical environment, existing patterns of use, and the desired level of management and development in a given management unit. Appendix A contains an allowable use matrix that covers activities, uses and facilities in each zone.

The Redfern-Keily Park is divided into two zones: Wilderness Recreation Zone and Nature Recreation Zone (Figure 5).

### **3.2.1 Wilderness Recreation Zone**

Most of the park is zoned Wilderness Recreation, encompassing approximately 79,260 hectares or 98% of the park during the summer. The Wilderness Recreation Zone includes Keily and Petrie creeks, and all of the mountains and ice fields. The main objective of this zone is to protect the natural environment while providing low-impact, wilderness recreation. This area of the park contains important wildlife habitat and spectacular landscape features. Future facility development, other than trapline cabins, is not allowed; this will enable visitors to have a solitary wilderness experience in the park. The only motorized uses permitted in this zone are: fixed wing aircraft, rotary aircraft, and snowmobiles for trapping and bison hunting purposes. Snowmobile use in the Wilderness Recreation Zone for bison hunting requires written authorization from a park officer and will only include areas below 1400m elevation and within the zones identified for bison hunting under the hunting regulations.

### **3.2.2 Nature Recreation Zone**

The Nature Recreation Zone is located in the southern portion of the park, and covers different areas in summer and winter. In summer the zone is approximately 1,455 hectares or 2% of the park. It includes Redfern Lake and Redfern Lake Trail. The main goal of this zone is to provide backcountry recreation opportunities while protecting the natural environment. This area of the park is the most easily accessed and provides a staging ground for recreational activities in the rest of the park. Motorized travel is permitted. There has been limited facility development and levels of use are relatively low so the area still retains a feeling of wilderness. During winter months (November 1 through April 15th), the size of the Nature Recreation Zone is increased to allow for enhanced winter recreation activities, mostly snowmobile use (Figure 5). The Nature Recreation Winter Zone includes areas below 1400m elevation as well as some additional recreational snowmobile destinations (identified by Northland Trail Blazers Snowmobile Club). These additional destinations include a route to Colledge Lake, located outside of the park to the south, and the headwater area of the Besa River.



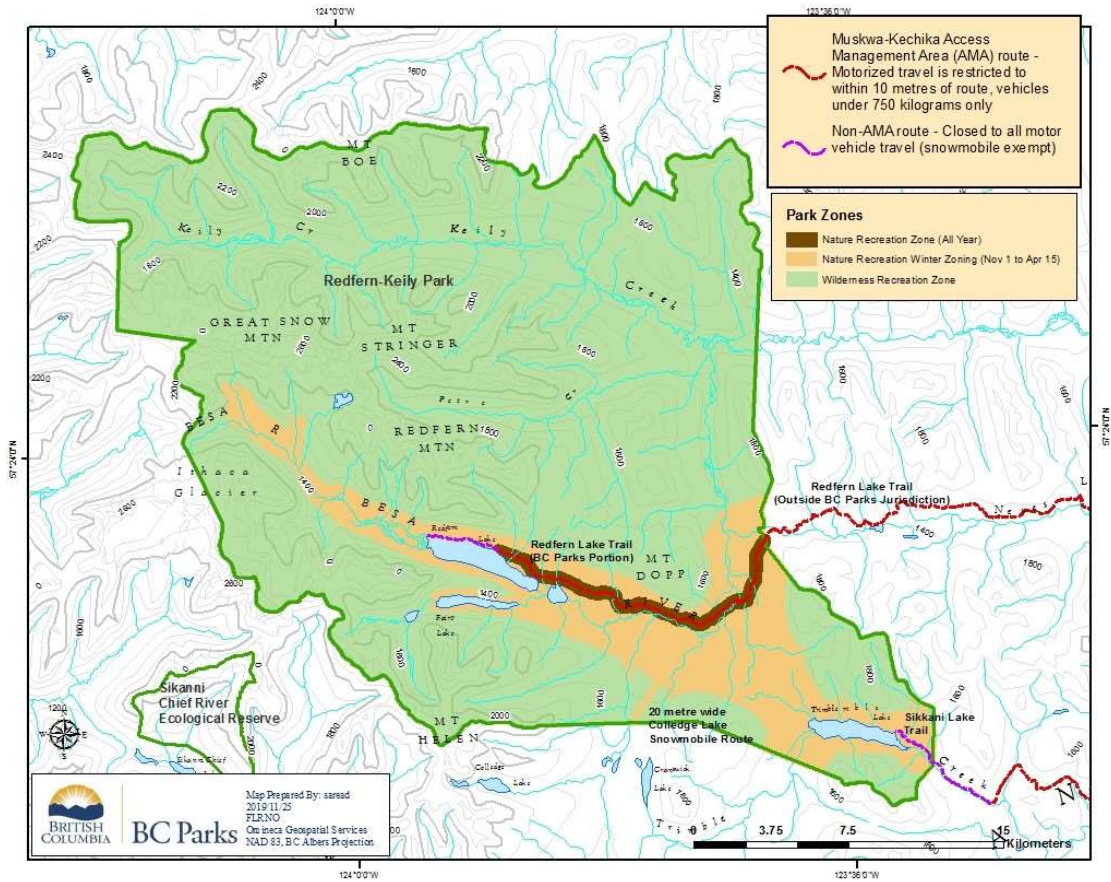


Figure 5: Redfern-Keily Park Zoning

## 4.0 Plan Implementation

### 4.1 Implementation Plan

BC Parks will seek project-specific funding and partners to implement high priority strategies. Specific projects will be evaluated for their priority in relation to the overall protected areas system. Many of the initiatives contemplated are not funded as part of core BC Parks activities so jointly seeking funds with outside partners will be a key aspect of the management plan implementation.

BC Parks uses Annual Management Plans to address issues in provincial parks and protected areas on a priority and annual basis. The issues and strategies presented in this plan will form the basis of the Annual Management Planning process for Redfern-Keily Park. BC Parks strives to ensure First Nations' values and inputs are reflected in the development of the Annual Management Plan for the park. Management results will be monitored against stated objectives, and work plans may be revised as part of the collaborative management process. Alternate implementation strategies for priorities not funded as part of core ministry activities may be pursued by BC Parks or its partners.

In addition to any legislation or policies highlighted in the management plan, there are numerous other provincial policies and guidelines which will be considered during management plan implementation. This includes items such as: BC Parks' policies on permitting, conservation, commercial recreation guidelines and policies, and impact assessment processes.

### 4.2 High Priority Strategies

- Work with First Nations communities, other ministries, community groups and/or educational institutions to support inventories and studies aimed at better understanding the distribution of plant species and ecosystems and their ecology; including how they will respond to environmental changes such as climate change (e.g. BC Parks Long-term Ecological Monitoring Program, First Nations Land Guardian programs).
- Monitor invasive species establishment, review management actions and explore treatment options<sup>26</sup>.
- Work with partners and other government agencies to identify and map locations of listed or significant species (e.g. Caribou, Elk, Moose, Mountain Goat, Grizzly Bear).

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<sup>26</sup> The use of herbicides in parks is only considered if there is no alternative treatment that has proven to be successful and if there is a significant threat to the ecological integrity of the park, as well as the surrounding area.



- Work with the ministry responsible for wildlife management to determine if Plains Bison are significantly impacting native wildlife populations or their habitats. If there are significant negative impacts, review the hunting regulations and determine if any changes are required. Ensure management activities do not create additional habitat in the park that Bison could occupy.
- The Redfern Lake Trail will be monitored and maintained to address any safety and environmental concerns, but no major upgrades will be considered.
- Work with stakeholders, First Nations, and the relevant ministries responsible for managing wildlife, range, and wildfire to identify clear objectives and strategies for prescribed fire in the park, by:
  - Considering prescribed fire for maintenance of early seral habitat and forage production where previously used, subject to the BC Parks Impact Assessment process and associated policy;
  - Conducting research about fire history and natural range of variability in the park;
  - Adapting as necessary in the future, based on research findings, climate change, and government policy. This may include an amendment to the management plan.

### 4.3 Plan Assessment

In order to ensure that the management direction for Redfern-Keily Park remains relevant and effective, this management plan will be assessed by BC Parks staff on a regular basis (i.e., at least every 5 years). Minor administrative updates may be identified and completed at any time (e.g., correct spelling errors, update protected area details where needed), and will be documented according to BC Parks guidelines.

If an internal assessment reveals that the management plan requires updating or substantial new management direction is needed, a formal review by BC Parks may be initiated to determine whether the management plan requires an amendment or if a new management plan is required.

## Appendix 1: Appropriate Use Table

The following table summarizes existing and potential future uses in Redfern-Keily Park that are and are not appropriate in each zone. This is not intended to be an exhaustive list of all uses that may be considered in this protected area in the future.

Please note that some appropriate uses are geographically restricted (i.e., only allowed in certain areas of Redfern-Keily Park) or are only appropriate at certain times of the year. Please ensure that you are well informed of any use restrictions as indicated in the table. It is important to review relevant sections of the management plan when interpreting the table.

Appropriate Use Table Legend		
<b>N</b>	<b>Not an appropriate use</b>	The use is not appropriate in the indicated zone. If the use currently exists but the management planning process has determined that the use is no longer appropriate in all or part of the park, the management plan will include strategies for ending the activity (e.g., phasing out, closing).
<b>Y</b>	<b>May be an appropriate use</b>	Some level or extent of this use may be appropriate in the zone indicated. The management plan may provide guidance on the appropriate level of use and may address specific restrictions or planned enhancements (e.g. capacity, designated areas for a particular activity, party size, time of year, etc.).  For new or expanded uses, this symbol indicates that the use <u>may be considered</u> for further evaluation. The appropriateness of some activities may not be confirmed until a further assessment (e.g., BC Parks Impact Assessment Process) or evaluation process (e.g., park use permit adjudication) is completed.
<b>Y1</b>	<b>Appropriate use as per section 30 of the <i>Park Act</i></b>	The use is not normally appropriate in a park but was occurring pursuant to an encumbrance or Crown authorization at the time the park was designated and is allowed to continue.

Activity/Facility	Nature Recreation Zone	Wilderness Recreation Zone	Comments
<b>Recreational Activities/Uses</b>			
Aircraft (fixed wing) – access and landing / takeoff	Y	Y	BC Parks may request submission of a flight plan as part of a park use permit.
Aircraft (rotary) – access and landing / takeoff	Y	Y	BC Parks may request submission of a flight plan as part of a park use permit. Operators are encouraged to keep to historical flight paths.
Unmanned Air Vehicles (UAV) – with or without passengers	N	N	May be authorized under permit for commercial filming (if not detrimental to recreational values) or research only
Boating (human-powered and electric)	Y	Y	
Boating (combustion engine power)	Y	N	

Activity/Facility	Nature Recreation Zone	Wilderness Recreation Zone	Comments
Camping (designated sites)	Y	N	Fire rings allowed in Nature Recreation Zone
Camping ("no trace" — undesignated sites)	Y	Y	
Fishing	Y	Y	
Hiking/backpacking	Y	Y	
Horses and Mules	Y	Y	
Dogs off leash	Y	Y	Dogs are allowed off leash in parks larger than 2,000 Ha
Hunting	Y	Y	
Land-based Mechanized Activity (e.g., mountain biking, Class 1 e-biking, dog sleds, horse sleds)	Y	Y	Designated trails only for mountain biking and e-biking (i.e., Redfern Lake Trail only). Follow BC Parks e-biking policy.
Land-based Motorised Activity (e.g., 4x4, ORV, Class 2 & 3 e-biking, motorcycle – not snowmobiles)	Y	N	Designated trails only (i.e. only Redfern Lake AMA route). Follow BC Parks e-biking policy
Skiing (back-country, cross-country, not track based)	Y	Y	
Skiing (downhill and cross-country track based)	N	N	
Skiing (helicopter or cat-assisted)	N	N	
Snowmobiling	Y	N	
Snowmobiling for Trapping Purposes	Y	Y	Requires a park use permit
Snowmobiling for Bison Hunting Purposes	Y	Y*	*If authorized by a park officer, below 1400m elevation and within the zones identified for bison hunting under the hunting regulations.
<b>Recreation Facilities/Infrastructure</b>			
Boat Launches	Y*	N	*Existing non-permanent only
Boat Wharves and Docks	N	N	
Cabin, Huts and Shelters (as defined in the Fixed Roof Accommodation Policy)	Y	N	
Lodges (as defined in the Fixed Roof Accommodation Policy)	N	N	
Trails	Y	Y	Existing trails only
Visitor information buildings	Y	N	Information shelters only
<b>Other Activities/Infrastructure</b>			
Commercial Filming	Y	Y	Requires a park use permit
Cutting Dead Standing Trees	Y	Y	Requires a park use permit
Grazing (horse)	Y1	Y1	Backcountry recreation purposes only. New PUPs can be issued as necessary to support commercial backcountry

Activity/Facility	Nature Recreation Zone	Wilderness Recreation Zone	Comments
			recreation opportunities subject to management plan.
Prescribed Fire	Y	Y	Will be considered in accordance with Section 3.1.9
Trapping	Y	Y	Requires a park use permit
Utility corridors	N	N	

## Glossary

**Cirque** – a half-open steep-sided hollow at the head of a valley or on a mountainside, formed by glacial erosion.

**Facility** – refers to a building such as a lodge, cabin, campsite or trail but does not include toilets, fire rings or food caches.

**Glacial till** – unsorted sediment deposited by a glacier.

**Hanging valley** – a valley that is cut across by a deeper valley or a cliff.

**Hoodoo** – a column or pinnacle of weathered rock.

**Thrust fault** – a break in the Earth's crust, across with older rocks are pushed above younger rocks.

**Electric bike (e-bike)** – An electric bike, or motor-assisted cycle, is a two- or three-wheeled cycle with a seat, pedals and an electric motor. A motor assisted cycle (MAC) cannot be gas-powered.