



Aircraft Use in South Chilcotin Mountains and Big Creek Provincial Parks

Aviation Management Plan 2022-2026

February 2022



BC Parks

Background

South Chilcotin Mountains is a 56,796 hectare Class A provincial park located near Gold Bridge. This park was originally designated as Spruce Lake Protected Area in 2001. In 2010 the protected area boundary was amended, and the area was renamed and reclassified as a Class A provincial park. South Chilcotin Mountains Provincial Park (SCM) contains two floatplane-accessible lakes: Spruce and Warner lakes. Adjacent to SCM, on its northern boundary, is Big Creek Park. This 67,918 hectare provincial park was established in 1995, and contains Lorna Lake which is the other float plane-accessible lake contained within the scope of this plan.

Floatplane use in the area predated park creation. Tyax Air have been flying clients into the area since the 1990s, and received its first Park Use Permit (PUP) in April 2004. Tyax Air (now dba Tyax Adventures) is the most prolific floatplane commercial operator in the park and continues to land on the lakes in these parks regularly. Tyax Adventures currently has a PUP to fly to Spruce, Warner, and Lorna Lakes. One other company, Harbour Air (formerly Whistler Air), has a PUP to land at Spruce Lake only. Harbour Air was issued a permit to fly to Spruce Lake in May 2005 and continues flying today, albeit to a much lesser extent than Tyax Adventures.

The majority of floatplane clients are transported to Spruce Lake with lower numbers transported to Warner and Lorna lakes (see Table #1). The typical season lasts from June 1st to September 30th with very few flights occurring outside of this time-frame. Most users flying to Lorna Lake, in Big Creek Park, end up spending the majority of their trips in SCM as they can easily traverse over Lorna Pass, Elbow Pass, or use one of the routes into the Graveyard or Relay Valleys in SCM.

Balancing Recreation and Conservation Values

Many wildlife species thrive in the area and the parks serve as critical protected ecosystems for several species. SCM provides habitat for Bighorn Sheep, Mountain Goats, Moose, Deer, wolves, Fisher, Wolverine, and a threatened Grizzly Bear population unit. Ongoing camera trap research projects into population distribution are occurring and initial reports show a strong wildlife population in the park with a significant decrease in camera trap sightings during the summer months. Future research aims to determine if the decrease in sightings is due to habitat displacement, natural seasonal distribution to higher elevations off trail, or trail avoidance due to increased seasonal trail activity.

SCM boasts world class alpine and sub-alpine single-track mountain biking, a long history of hut-to-hut horse packing, and phenomenal backcountry hiking opportunities. There are over 150 KM of trails in the park. Commercial Operators in the park offer guided angling, backpacking, mountain biking, hunting, bushcraft, ski touring, and heli-skiing. There are nine major Commercial Operator camps scattered across the park.

Many of the trails in the park directly overlap with critical wildlife habitats. The parks' locations in remote, hard to reach areas of the province have helped to protect trails from overuse, however recent years have seen a shift towards increased mountain biking in the area. The nature of mountain biking as a fast-moving activity has greater potential to startle wildlife on the trail network.

The park management plan for the two parks recognizes and validates floatplanes as a legitimate means of access. The plan recognizes the overlapping recreation and numerous wildlife and conservation

values contained within the park. This is formally recognized in the zoning of the park as a Wilderness Recreation Zone.

[Link to the Management Plan](#)

The park management plan for Big Creek and South Chilcotin Mountains speaks to the impact of floatplanes and the necessary mitigation of their impacts. Wildlife management, as well as visitor experience, are cited as the reason. The management plan sought comments via an online survey. Numerous stakeholders, members of the public, Commercial Operators, and First Nations have raised valid concerns about floatplane access. The following excerpt from the management plan summarizes these comments:

“Although most recognize that floatplane access is a legitimate mode of entry to the parks, this must be balanced by the expected experiences of other visitors participating in on-the-ground activities. Public concerns were raised on the disturbance created through noise, frequency, timing and location of flights. Aircraft also allows access to the park by some who may not be prepared for a wilderness excursion. The narrow valleys typical of the area where the destination lakes are located echo the sound of aircraft. It was noted that even floatplane clients want to have some quiet experience. Impacts of the noise on wildlife are also a concern.”

The management plan makes recommendations under Section 3.1.4 Access. The following excerpt summarizes the management direction for access in relation to floatplane use.

- *Develop an access plan that protects ecological integrity and wildlife, and provides the remote, nature-based experiences that are desired by park visitors. The access plan will recognize the parks as backcountry areas more suited to dispersed, multi-day trips over day-use.*
- *Assess carrying capacity related to visitor experience, use of individual trails, floatplane flights and impacts to terrain and wildlife.*
- *Recognize commercial floatplane access as an appropriate means of access for many park visitors while identifying an acceptable level of disturbance for visitors and wildlife. Consult with commercial floatplane operators as part of the overall access plan in order to meet the objectives of this management plan respecting avoiding disturbance of wildlife and maintaining a feeling of solitude for visitors. Consideration should be given to timing, number and location of flights.*
- *Work toward flight schedules that both recognize Spruce Lake as the primary and regular entry point into South Chilcotin Mountains Park, but also provide for quiet, undisturbed opportunities for visitors staying at the campgrounds; treat Lorna Lake, and especially Warner Lake, as less disturbed wilderness locations; and avoid park overflights or viewscape sightseeing. This may include consideration of eliminating flights into one or more lakes.*

The plan also addresses wildlife management with a focus on Grizzly Bear management (Section 3.1.2).

- *Ensure Grizzly Bear management takes an adaptive approach in order to consider temporal changes in food resources and shifts in bear locations and abundance. Continual, real time adjustments in recreational activities should be expected by all parties to ensure flexibility in protection and conservation of Grizzly Bears.*

As park managers it is important to actively monitor changes to wildlife movements, population health, and abundance. If one of these factors is seen to be changing due to the flight allocation described in this plan BC Parks reserves the right and in fact has an obligation to adjust the allocations authorized in this document.

Impacts of Floatplanes Throughout the Park

Regular floatplane use in a remote wilderness park undoubtedly has an impact on the people and wildlife in the park. Gas powered floatplane engines are loud, which is exacerbated in narrow valleys that echo the noise of final approach and take off. While some wildlife species may be able to tolerate this auditory impact, others will be displaced. Others still will be able to tolerate occasional floatplane noises but may eventually be displaced by the regularity of the noises. Another impact of floatplanes is the presence of the plane itself. Some species are displaced due to optical impacts from seeing these large machines in and around these remote lakes. Flight routes that take advantage of mountain ridges can act as a noise and visual buffer in parts of the park. Flight routing may be able to alleviate some of the impacts experienced in critical habitats and popular recreation destinations in the parks. Wildlife are not the only species impacted, many park users value the remote, wilderness experience found in the backcountry of these parks. Complaints have been made about the disruption of the wilderness experience caused by the visual and auditory intrusion of floatplanes in the wilderness.

Sample comments received from the public input process of the park management planning process included comments to limit floatplane volume by restricting days of the week or times of the day. Some public visitors felt their wilderness experience was negatively affected by the regular presence of floatplanes and their associated auditory impacts. Others expressed the value of floatplanes as a means to access remote portions of the park. A balanced authorization of floatplane flights may be able to achieve the best results for wildlife and park users alike.

Regular flights into Spruce, Warner, and Lorna lakes transport recreationalists deep into the backcountry of these parks. This relatively easy access to the backcountry of the parks increases the users present at any given time as well as the resulting impacts on park facilities, trails, and displacement of wildlife due to the sheer presence of humans. Some of these users are not prepared for a remote wilderness excursion.

SCM Park has seen a shift in traditional uses of the area. This is reflected in the broader level, general recreation trends that have moved away from horse packing and towards mountain biking. This is especially obvious in SCM with a significant increase in mountain biking over the past 10 years. Based on commercial operator reports, a clear majority of floatplane users accessing SCM have been mountain bikers. The nature of mountain biking as a recreation activity differs from other recreation activities due to the distance covered by bikers and the speed at which those trails are traversed. More users on more remote trails has increased the potential for wildlife displacement. The speed at which mountain bikers travel also impacts wildlife species, especially Grizzly Bear displacement. Startling Grizzly Bears also has the potential for serious consequences for riders. Fight or flight responses can result in significant injury or death by Grizzly Bear mauling.

Floatplane use has been increasing in South Chilcotin Mountains and Big Creek Park over the past decade (see Table #1). Although floatplanes are a recognized means of access to the park, it is incumbent upon BC Parks to mitigate the impacts of floatplanes by creating an Aviation Management Plan, which sets limits on the use, timing, and location of floatplanes in the park.

Table #1 – Historical Floatplane Records for Tyax Adventures

Year	Spruce Lake	Warner Lake	Lorna Lake	TOTAL Annual Flights
2011	131	83	37	251
2012	173	95	56	324
2013	185	99	84	368
2014	171	91	101	363
2015	199	83	75	357
2016	243	81	152	476
2017	262	89	18 Big Creek Park Closed	369
2018	153	63	132	348
2019	149	89	135	373
2020 (COVID)	110	51	95	256
Average Flights/year	185	86	96.5	367.5

*Red numbers not included in average

Table #2 – Historical Floatplane Records for Harbour Air

Year	Spruce Lake Landings
2011	4
2012	0
2013	6
2014	5
2015	3
2016	8
2017	3
2018	1
2019	3
2020 (COVID)	0
Average	3.6 flights/year

*Red numbers not included in average

Commercial Operator Impact Mitigations

Currently, the main Commercial Operator providing floatplane access to SCM and Big Creek Parks is Tyax Adventures (TA). Tyax Adventures has been willing to work with BC Parks in an attempt to mitigate the impacts of his business in the park, taking steps to decrease the number of flights at critical times in the park.

Historically the number of users wishing to access the park via floatplane was focused on summer weekends. TA has altered their pricing plan in order to spread out the use throughout the week. There is an 11% discount applied to mid-week flights. TA has also increased the turnaround time between flights into the park to space out the impacts from landing and take-off and space out the users on the trail at any given time. TA also actively promotes their destinations outside the park including a camp owned on Taseko Lake, which is located outside of the parks.

TA has also grown over the past decade to include hut-to-hut mountain biking tours in the park. TA has never actively advertised charter flights into the park, but rather focuses their advertising on guided hut-to-hut and single day tours in the park. This strategy maximizes the experience for guests, while minimizing the number of flights needed. Guided mountain biking allows for the influence of the guides to be imparted on the users. Guides will evoke proper trail use, respect for the land, control speeds, limit negative wildlife impacts, and ideally create responsible trail riders in the future. TA actively promotes a sustainable mountain biking philosophy. At TA's expense, a film was created as a call to action, to promote the type of mountain biking that enhances the park through stewardship and eliminates the conflicts that have previously painted the sport in a negative light (<https://tyxadventures.com/sustainability-stewardship/>). The continuation of the promotion of safe backcountry riding is critical to ensure TA clients are prepared and actively reducing the risk of negative bear encounters. They have also created a Chilcotin Grizzly Bear Conservation Fund in which a portion of the company's proceeds are dedicated to Grizzly Bear research and recovery.

In order to mitigate some of the noise impacts in the park, TA has outfitted their floatplane with a quieter propeller. This propeller is now a 3-blade propeller which has reduced the noise output by approximately 30%. This propeller modification cost upwards of \$30,000.

There are several other positive impacts that the presence of a fully functioning floatplane operator is having on SCM. TA actively maintains the trails in SCM for their guests, the public, and other users in the park. TA effectively communicates with BC Parks about the trail conditions and about the progress their trail crews have made clearing the many kilometers of trails. The regular presence of floatplanes creates a relatively easy and reliable means of evacuation in case of serious injury to park users in the vicinity of one of the three floatplane accessed lakes.

Table #3 – Aviation Management Plan

Issue	Solution	Flight Limitations/PUP Provisions
Predictability of flight times	Aviation Management Plan (AMP) provision indicating acceptable morning arrival times and end of daily operations/ final departure times of aircraft at the various lakes	<p><u>Spruce Lake</u></p> <ul style="list-style-type: none"> - No flight arrivals before 8:00AM - All flights completed by 5:00PM daily <p><u>Warner Lake</u></p> <ul style="list-style-type: none"> - No flight arrivals before 8:00AM - All flights completed by 1:00PM daily <p><u>Lorna Lake</u></p> <ul style="list-style-type: none"> - No flight arrivals before 8:00AM - All flights completed by 5:00PM daily - Any aircraft movements outside of these times will be reported to BC Parks staff, with a rationale, within 1 day of the flight occurrence
Periods of solitude for people and wildlife	Impose flight free days. AMP provision prohibiting flights to Spruce Lake one day each week	<p>No flights may be scheduled to Spruce Lake on Wednesdays Only unscheduled flights will be allowed to land at Spruce Lake on Wednesdays. BC Parks must be notified with a rationale within 1 day of the flight occurrence.</p>
Flight frequency disruption	AMP provision dictating a minimum turnaround time for flights to the same lake	<p>Landings may not occur on the same lake within 60 mins, or no more than 2 landings in 120 minutes, or no more than 3 landings in 180 minutes.</p>
Total number of annual allowable flights by location	Determination of <u>total allowable annual flights</u> to each lake based on historical levels of use.	<p><u>All Commercial Operators</u> Spruce Lake: 225 Lorna Lake: 125 Warner Lake: 100</p>
Allocation of flights to specific commercial operators	Develop a flight access plan for each operator on a 5-year cycle of review. Recognize historical levels of use by allocating a percentage of total allowable flights to existing operators.	<p><u>Tyax Adventures Spruce Lake (200) Lorna Lake (100) Warner Lake (90)</u></p> <p><u>Harbour Air Spruce Lake (10) Lorna Lake (5) Warner Lake (N/A)</u></p> <p><u>Other (held in reserve) Spruce Lake (15) Lorna Lake (20) Warner Lake (10)</u></p>

Camp supply challenges for commercial operators	Allocate very limited helicopter flights for supplying camps on a trial basis.	Tyax Adventures may supply the Tyaughton Camp (aka Bear Paw Camp) 12 flights per season on a set schedule (3/month) between June 1st and September 30th annually. These flight allocations count toward the annual allowable flights into the park. Clients are not permitted on helicopter flights. GPS tracking with points recorded every 2-5 seconds will be required to be submitted to BC Government Knowledge Management Branch for tracking purposes. The helicopter authorization is on a trial basis and if impacts are too significant the authorization may need to be reviewed and adjusted.
Impact of AMP on previous winter aircraft allocations	Continue to authorize existing winter aircraft access through standard provisions in permits.	Tyax Adventures will continue to be granted client transportation to Eldorado Cabin during the winter season as per the standard provisions in PUP# 101819. Tenured heli-ski operator will continue to be authorized under the provisions in PUP # 108079.