Proposal for the Protection of the
Quesnel Lake Wilderness Park Proposal



Elysia Resort

Submission to the Governments of British Columbia and Canada for Class A Provincial Park Status

On the urgent need to preserve British Columbia's Inland Temperate Rainforest and secure habitat for endangered Deep-Snow Mountain Caribou.

Initially proposed 2018
Revised November 2026

The Quesnel Lake Wilderness Park Proposal lies within the traditional territory of the Secwépemc (Shuswap) Nation including the Xatśūll (Soda & Deep Creek), T'exelc (Williams Lake), Tsq'escen' (Canim Lake) and Stswecem'c Xget'tem (Canoe and Dog Creek) bands that form the Northern Shuswap Tribal Council.

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Executive Summary

This is a proposal to protect the wilderness of the North and East Arms of Quesnel Lake, including the Penfold River valley and the upper Horsefly River Watershed as a 261,876-ha Class-A Provincial Park in British Columbia's Cariboo region.

Quesnel Lake and the proposed wilderness park are of great cultural and heritage significance to the First Nations with traditional territory in the region. The park proposal was initially designed in 2018 with members of the Secwépemc First Nations, including the Xat'sūll (Soda & Deep Creek) and T'exelc (Williams Lake) bands after a co-operative field assessment.

If protected, the Quesnel Lake Wilderness Park Proposal would be a major improvement to British Columbia's fragmented parks system by adding a significant amount of low-elevation old growth rainforest habitat for Deep-Snow Mountain Caribou that the adjacent parks sufficiently lack. It would also support the conservation of Grizzly Bears and of three watersheds, including spawning habitat for one of the largest Sockeye Salmon stocks of the Fraser River Basin.

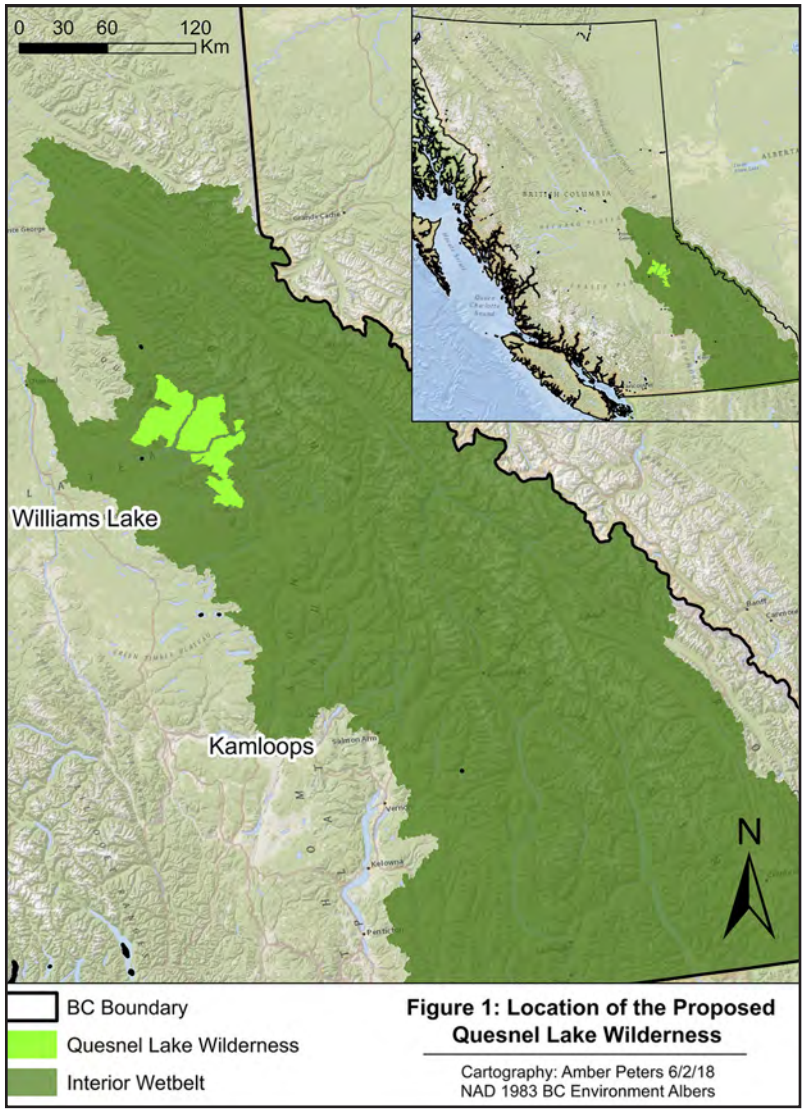
The proposal encompasses a significant high-biodiversity wilderness, including the very wet ancient Inland Temperate Rainforest ecosystem inhabited by at least 156 provincially known species at risk and 56 known COSEWIC-listed species at risk. Preserving the Quesnel Lake Wilderness as a Class A Provincial Park will leave a legacy of biodiversity for generations to come, and will provide the best possible outcome for preservation of Canada's critically imperiled Deep-Snow Mountain Caribou.



Gary Diers



Craig Pettitt



The Park Proposal

With depths up to 610 metres, Quesnel Lake is the deepest lake in British Columbia and thought to be the deepest fjord lake in the world. It is a major tributary of the Fraser River; contributing genetically unique salmon of record-breaking size to the Pacific coast (COSEWIC 2002). The Inland Temperate Rainforest surrounding Quesnel Lake is globally significant, red-listed and irreplaceable.





Left: Looking up the North arm of Quesnel Lake. Right: The wettest and richest remaining inland rainforests in British Columbia's Interior Wetbelt have biodiversity comparable to some tropical forests. Research suggests that many of its species may not be known to or described by scientists yet. [Photos: Craig Pettitt]

Quesnel Lake is sacred to many First Nations communities who, along with other communities and wildlife populations within the Fraser River Basin, depend greatly on its restoration and protection.



Jim Lawrence

The Quesnel Lake Wilderness will contribute substantial ecosystem diversity to the adjacent park system.

Wetlands, spawning channels, waterfalls, and old-growth forest form a diverse landscape that supports some of Canada's richest biodiversity and most iconic and at-risk species.

The proposal will add significant old Engelmann Spruce-Subalpine Fir (ESSF) and Interior Cedar-Hemlock (ICH) forest to our parks system, including 23,888-ha of old growth ICH and 29,145-ha of old growth ESSF. An additional 3,356-ha of ICH and 17,009-ha of ESSF is older mature forest between 200-249 years old. These forests will contribute to important future old growth ecosystems (Appendix C).



Craig P. & Wayne M.

Left: Sockeye Salmon on the shoreline of Quesnel Lake. Middle: S. venerabilis, S.tuckermannii, S. fulignosa, and S. oroborealis. This is the furthest north in the interior that coral lichens venerabillis and tuckermanii have been found. Right: A healthy population of eagles thrives on spawning fish and deposits nitrates that support lichen growth throughout the forest.

Quesnel Lake Wilderness Park Proposal

BOWRON LAKE PARK

CARIBOO MOUNTAINS PARK

WELLS GRAY PARK

Quesnel Lake

Horsefly Lake

Horsefly River

Crooked Lake

Quesnel Lake Wilderness Park Proposal.

Snowmobile Management Areas

Salmon spawning locations *

Salmon spawning reaches *

Existing Roads

Existing Cutblocks

Proposed Cutblocks (FOMs**)

Caribou WHAs

ICH Old Growth (> = 250 yrs)

BC Parks

* Known BC Fish Observations and BC Fish Distributions (https://catalogue.data.gov.bc.ca/dataset/known-bc-fish-observations-and-bc-fish-disttions/resource/5a5dd7d6-2ecd-4049-a33c-9808e02e7250)

**Forest Operation Maps - Interactive digital maps that forestry companies must publish to show the public where they plan to build roads and harvest timber before they apply for official permits.

The Quesnel Lake Wilderness Park Proposal lies within the traditional territory of the Secwépemc (Shuswap) Nation including the Xatśūll (Soda & Deep Creek), T'exelc (Williams Lake), Tsq'escen' (Canim Lake) and Stswecem'c Xget'tem (Canoe and Dog Creek) bands that form the Northern Shuswap Tribal Council.

Secwépemc First Nations

The proposed park is of great cultural and heritage significance to numerous First Nations bands of the Secwépemc Nation that hold unextinguished inherent rights and title to the Quesnel Lake area.

These include the Xat'sūll (Soda & Deep Creek), T'exelc (Williams Lake), Tsq'escen' (Canim Lake), and Stswecem'c Xgat'tem (Canoe & Dog Creek) that form the Northern Shuswap Tribal Council.

The Secwépemc Nation traditionally relied on this land for fishing, hunting, and gathering of roots and berries (T'exelc Williams Lake Indian Band 2018; Teit 1909).

A joint VWS-First Nations expedition confirmed high values for First Nations cultural sites, old-growth rainforest, and an unexpected system of lakeshore-spawning salmon, Grizzly Bear, and Bald Eagle ecology producing the highest concentration of oceanic lichen species recorded in the Interior of British Columbia at the time of the survey.

The Williams Lake band recognizes important cultural heritage sites within the park proposal including multiple Quigley holes or pit-house sites, traditional fishing grounds and sites of culturally modified trees.





A Secwépemc pit house site, part of an ancient village along Quesnel Lake. [Photo: Craig Pettitt]

Archaeological surveys have found signs of Secwépemc Nation occupancy dating back 4,000 years within the proposal. Oral histories indicate a presence of at least 10,000 years.

Today, cultural use sites are designated in the existing 872-ha Quesnel Lake Park. There are at least two recorded archaeological sites with high potential for more archaeological resource discovery within the proposal area (B.C. Parks 2015).

Surveys in 2025 showed increased clearcut logging of the park proposal, threatening what remains of the intact remaining rainforest around Quesnel Lake.



A member of the Xat'sūll First Nation at the shore of Quesnel Lake. [Photo: Craig Pettitt]

Anglers, nature guides, and First Nations still rely on Quesnel Lake and its surrounding intact wilderness for their livelihoods and for cultural and spiritual connection to the land.

The Inland Temperate Rainforest

Surrounding Quesnel Lake is one of the wettest and most species rich ITR ecosystems surveyed in Valhalla Wilderness Society's 25+ year Inland Temperate Rainforest project. This intact rainforest supports Deep-Snow Mountain Caribou (COSEWIC endangered, provincially red-listed) and other rare and at-risk species that are local to Quesnel Lake and areas far downstream.

Research on B.C. forest fires has shown that environmental precipitation is a greater determining factor for forest fires than temperature, and that preservation of precipitous ecosystems could contribute to a reduction in the intensity of wildfires in British Columbia (Meyn et al. 2013).

These forests rarely burn at high intensity, and are home to huge cedars up to four meters in diameter, with individual trees estimated at up to 2,000 years old.

Unfortunately, wildfires and Mountain Pine Beetle outbreaks have devastated the drier ecosystems of the Interior Plateau surrounding the Quesnel Lake Wilderness.

Designating greater protection for this ancient, humid, and resilient haven of biodiversity now is fundamental to pursuing long-term ecosystem stability amidst a rapidly changing landscape and climate.

High biodiversity in this rainforest is partly due to heavy nutrient loading, allowing for lush and diverse growth of lichens and other organisms. This may be attributed to productive fish spawning grounds along Quesnel Lake's shoreline. Spawning trout and salmon attract Eagles, Grizzly Bears, and scavengers that deposit nutrients in the surrounding forest.

A survey of the Quesnel Lake Wilderness found oceanic lichen species in abundance and some in forms not known to science at the time of the survey.



Gary Diers

Although it is a very rare and biodiverse ecosystem, low elevation ancient and old growth Inland Temperate Rainforest like that within the Quesnel Lake Wilderness Class A park proposal is extremely under protected in B.C.



A rare find within the park proposal; the lichen species Stitca oroborealis in its flowering stage. [Photo: Craig Pettitt]



Craig Pettitt

University of Alberta biologist Toby Spribille surveys an ancient redcedar tree for lichens.

Sticta oroborealis and *S. fuliginosa, Platismatia norvegica,* and the COSEWIC species of special concern *Nephroma occultum* are some of the species found that are usually endemic to coastal ecosystems. These are just a few of the hundreds of lichen species that can be found within the wet ICH rainforest at Quesnel Lake.

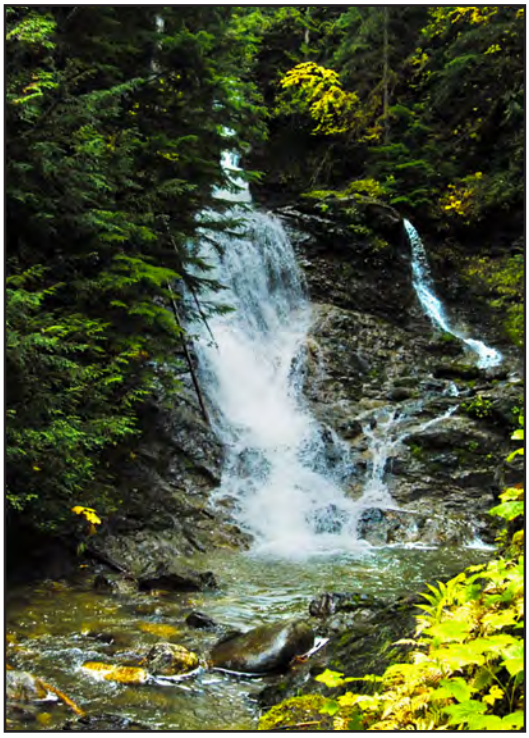
The Inland Temperate Rainforest

British Columbia's remaining Inland Rainforest contributes ecosystem services that benefit the province and the planet.

These include massive carbon sequestration and storage, cooler climate-refugia for biodiversity preservation, the supply and filtration of a substantial volume of freshwater, wild food production for humans and wildlife, habitat for bats and birds that control agricultural pests, and the production of pollinating insects.



Another rare find within the park proposal; the COSEWIC species of special concern Nephroma occultum. [Craig Pettitt]



A waterfall in the Inland Rainforest off the shore of Quesnel Lake. [Photo: Craig Pettitt]

Dr. Lance Craighead of the renowned Craighead Environmental Research Institute conducted an in-depth analysis of the Inland Temperate Rainforest Region from which he concluded that:

- 55% of the ITR must be fully protected to maintain species such as salmon, Grizzly Bears, and Mountain Caribou (Craighead 2004).

- 85% must be managed for ecosystem values to maintain biodiversity.

Another analysis involving a 10-year GIS mapping project with Baden Cross of Applied Conservation GIS found dismal protection of the remnant Inland Temperate Rainforest (ICH vk; wk) within the Inland Rainforest Region (IRR):

- Only 17% of the land base in the IRR is protected in parks. Only 15% of the forest in this region is considered "true rainforest" (ICH vk; wk forest types).

- Two-thirds of protected ITR was over 1000m in elevation with far less species diversity than low-elevation ITR.

- 47% of protected ITR is on steep slopes largely avoided by Mountain Caribou.

High intensity fires continue affecting plantation forests.

Meanwhile, the oldest of our remaining Inland Temperate Rainforests maintain more moisture and resilience compared to our younger, less structurally complex forests. These forests are adapted to wet ecosystems and are more resistant to drought and fire. They become more resilient and diverse over time. However, their values are deeply threatened by extensive logging today.

In 2021, the Provincial Government-appointed Old Growth Technical Advisory Panel (TAP) identified priority at-risk old growth areas to defer from logging.

A landscape analysis by Applied Conservation GIS (Appendix C) shows 39,483 hectares of the 53,033 hectares of old growth in the proposal are designated as TAP priority deferral areas.

An additional 20,364 hectares of ICH and ESSF is older mature forest between 200-249 years old.

In 2024, following their initial analysis, the TAP scientists found that 57% of the areas the province claimed were deferred had already been logged, were scheduled for logging or were not old growth.

Mountain Caribou

The Quesnel Lake Wilderness is home to a significant subpopulation of Deep-Snow Mountain Caribou. Increased habitat protection through Class A park designation can help Canada preserve this unique ecotype found nowhere else but in B.C.'s Interior Wetbelt.

The valley-bottom old growth forest along the east side of Quesnel Lake is federally designated critical habitat for Deep-Snow Mountain Caribou (COSEWIC listed as endangered and provincially red-listed). The rest of the valley bottom habitat is federally designated matrix habitat.

The Quesnel Lake Wilderness proposed Class A park covers much of the habitat range of the Wells Grey North herd. Estimated at 199 animals in 2023, this is the third largest remaining herd of Deep Snow Caribou.

The area within and surrounding the proposed Class A park is home to four herds that are believed to interbreed (Young & Freeman 2001).

These include the Wells Grey North (199 estimated in 2023), Wells Grey South (216 estimated in 2025), Barkerville (51 minimum known animals alive in 2025), and North Cariboo Mountains (157 estimated in 2022) herds.

Today, less than 1,400 Deep Snow Mountain Caribou remain in total.

159,102 hectares of forest in the proposal are designated a no-logging or modified harvest Wildlife Habitat Area, but if this population is extirpated, the current, weak protection could be lifted, putting this rare ecosystem and its long list of at-risk species at greater risk of extirpation and extinction. Much of the Caribou's low elevation habitat is fully unprotected.

- The proposal area is an important trans-population migration corridor.

- **The proposal creates high potential for population gene flow, establishing greater long-term population stability.**





Top: Mountain Caribou on the shore of Quesnel Lake. [Photo: Elysia Resort]. Bottom left: Arboreal hair lichens provide critical winter food.

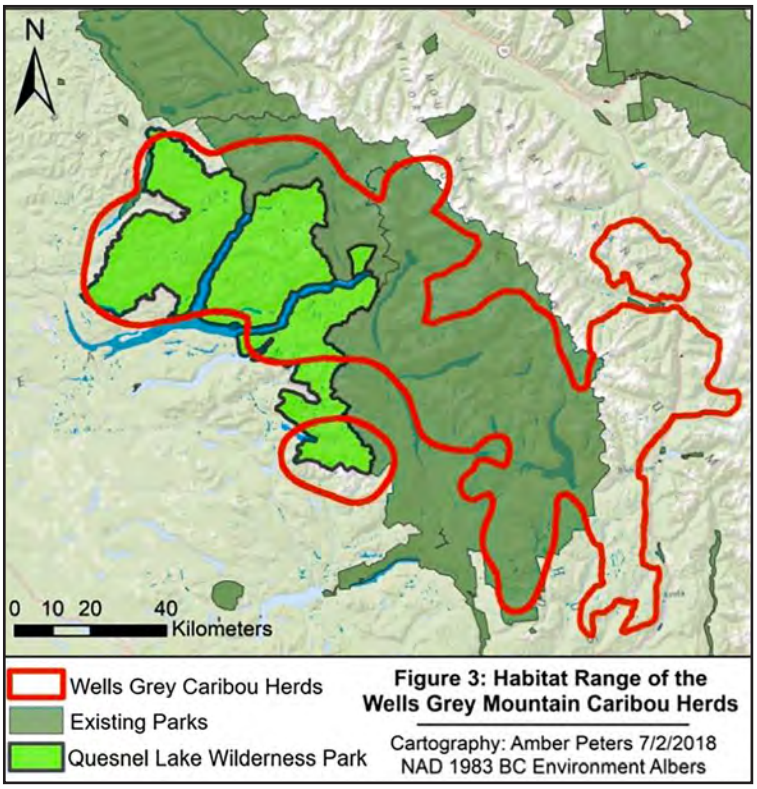


Figure 3: The Wells Grey Herds include Wells Grey North, Wells Grey South and Barkerville. The North Cariboo Mountains herd is also believed to interbreed with this subpopulation.

Mountain Caribou

Mountain Caribou need a wide range of connected habitat types to survive, and their range has been shown to shift slightly each year, demanding a greater protected habitat area for long-term conservation (Seip 1992).

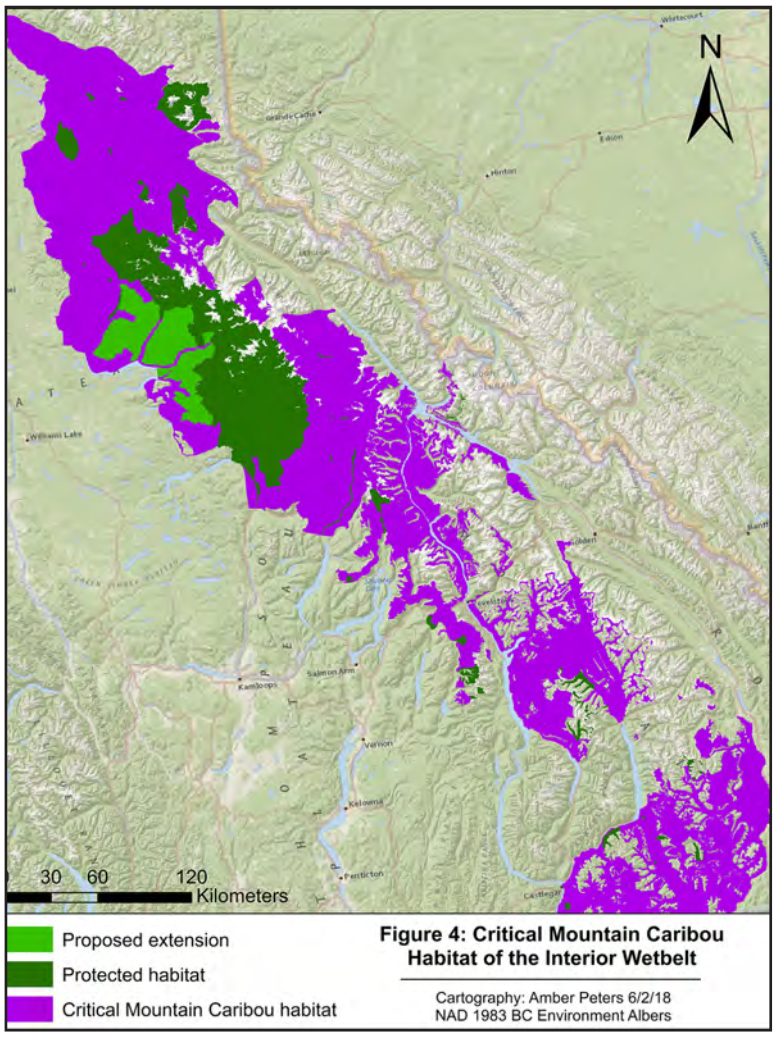
The 2014 federal recovery strategy revealed that 65% intactness is necessary for Mountain Caribou survival (Environment Canada 2014). **Protecting the Quesnel Lake Wilderness as a Class A provincial park would add substantial intact forest to the existing park system (see Appendix C)**.

Much of the low-mid elevation ICH old growth the Deep-Snow Mountain Caribou need in spring and early winter is outside of existing park boundaries. Continued loss of low elevation rainforest has led to significant declines in population since the Recovery Implementation Plan was announced in 2008.



The Mountain Caribou is an iconic Canadian species whose decline is an indicator of overall ecosystem health of the Interior Wetbelt. [Photo: Wayne McCrory]

The North Arm of Quesnel Lake and the Penfold Valley may be the largest body of Inland Temperate Rainforest in existence today, rivalled only by the Walker Wilderness in the Robson Valley.



44% of the old growth and older mature Interior Cedar-Hemlock (ICH) forest within the park proposal is currently slated for logging (ie: the forest is within the Timber Harvesting Landbase).

14% of the old growth and older mature Engleman Spruce Subalpine Fir (ESSF) forest within the park proposal is also currently slated for logging. Additional forest is in a modified harvest Wildlife Habitat Area (WHA).

The forest inside the no-harvest WHA is still subject to mining, mineral tenure logging and development, leaving this wet rainforest habitat for Mountain Caribou insufficiently protected.

This subpopulation is the largest to exist predominantly within a protected area, and focussing on expanded protection of this habitat is an important strategy for the conservation of Mountain Caribou.

Protection of the remaining old growth forest around Wells Grey Park is an urgent necessity for this significant subpopulation of an iconic Canadian migratory animal.

Fisheries

Quesnel Lake fish populations sustain multiple commercial, sport, and Indigenous fisheries, and a critical food source for BC's iconic Southern Resident Killer Whales.

The existing park system surrounding Quesnel Lake has left out three major watersheds that contribute significantly to BC's Pacific Salmon stocks. This includes the Quesnel River, a major tributary to the Fraser - once known as the largest salmon-producing river in the world.

VWS's Quesnel Lake Wilderness Class A park proposal hosts four species of ocean-going salmon, including Chinooks. In 2018 three Chinook Salmon subpopulations in the park proposal, in the Mitchell River and Quesnel Lake (Designable Units 7, 8, 9 and 10) were listed by COSEWIC as endangered; a fourth is threatened.



Southern Resident Killer Whales are incredibly important to BC people and coastal ecosystems. [Photo: Wayne McCrory]

Quesnel Lake and its tributaries contain a quarter of the natural spawning sites of Fraser River Sockeye Salmon. It is known to be a primary nursery lake for Sockeye from numerous upstream tributaries such as the Horsefly and Mitchell Rivers as well as McKinley Creek. In years of escapement abundance Sockeye have been observed spawning on the Quesnel Lake shoreline at varying depths to take advantage of the upwelling water required for successful spawning. The 2017 COSEWIC assessment listed some Quesnel Lake subpopulations as endangered and said the Mount Polley mine disaster is a threat to them.



The Quesnel River is world renowned for sport fishing, supported by trophy size Rainbow Trout and Char in Quesnel Lake. It is host to four Pacific Salmon species including Chinook, Sockeye, Coho, and on rare occasions Pink Salmon. This photo is from the Mitchell River. [Craig Pettitt]

Upper Fraser River Chinook Salmon can be found spawning in September approximately one kilometer upstream from the village of Likely in a Quesnel Lake area known as the Narrows, the Horsefly River, McKinley Creek, and the Mitchell River.

Quesnel Lake salmon stocks have a particularly vast distribution compared to other Fraser River stocks, enriching an extensive area as they migrate as far as Kodiak Island off the coast of Alaska (Beacham 2014).

Salmon in the Fraser River and on the coast overlap with more than 170 First Nations. They are cultural keystone species that maintain diverse and productive aquatic and terrestrial ecosystems across a great distance. They have supported First Nations for thousands of years and today still feed people and wildlife throughout the province and beyond.

They are also critically important to the Southern Resident Killer Whales in BC's coastal waters. An independent science panel has determined that, unless more is done to help them, the whales are likely to go extinct. They depend almost totally on Chinook Salmon for their food. Studies have shown that a lack of food, due to the decline of Chinook Salmon, is the main cause of the whale's decline. In 2018 Canada's leading authority on species-at-risk, COSEWIC, reported that half of Canada's 16 populations of Chinook Salmon are endangered. Four others are threatened.

The proposed park would help maintain and enhance BC salmon populations and ecosystems through additional protection of their spawning, rearing and migratory habitats that are increasingly under threat.

Grizzly Bears

The Quesnel Lake Wilderness Class A provincial park proposal includes ample habitat for a large population of blue-listed Grizzly Bears, a Federally-listed Species of Special Concern.

At the North and East Arms of Quesnel Lake, critical spawning habitat for salmon and Bull Trout are abundant at the convergence of most rivers and creeks (Cariboo Regional District 2009). Widespread Sockeye Salmon spawning habitats create plentiful foraging sites for Grizzly Bears and viewing areas for various wildlife tourism businesses within the proposal area.

This wide-ranging species needs large, connected landscapes to survive into the future. Their range has decreased severely across North America and many of their habitats are under significant increasing threat from development expansion and climate change.



Tim Stewart

The B.C. Auditor General's review of Grizzly Bear management in British Columbia (2017) found:

- Major uncertainty in population estimates.
- Unsustainable maximum allowable mortality rate has persisted despite the uncertainty.
- ***British Columbia's fragmented park system cannot sustain Grizzly Bears long-term.***
- Cumulative effects of decline should ring alarm bells for urgent protection.



Right: The Penfold River Valley; prime habitat for Grizzly Bears, Mountain Caribou, and other at-risk species.

The Quesnel Lake Wilderness encompasses a significant remnant of the globally rare Inland Temperate Rainforest - an ecosystem found in only three places on Earth. BC's Inland Rainforest has species found nowhere else.

At least 156 species at risk are known to inhabit British Columbia's wet Interior Cedar-Hemlock forest of the interior wetbelt, but it is likely there are more species that have not yet been documented or described by scientists.

Other At-Risk Species

Appendix A lists provincially or COSEWIC-listed animal species that may occur in the proposal area based on a B.C. Conservation Data Centre (CDC) search in 2024. This search revealed at least 102 at-risk animals that potentially inhabit the proposal, including 21 red-listed and 69 blue-listed species, and 43 COSEWIC-listed species.

The CDC also lists at least 19 at-risk plant and lichen species, including 12 red-listed and 6 blue-listed species, and 7 COSEWIC-listed species (Appendix B).

Dr. Toby Spribille documented substantially greater plant and lichen diversity in the proposal area during initial biodiversity surveys - estimating hundreds of species of lichens alone including at-risk species.

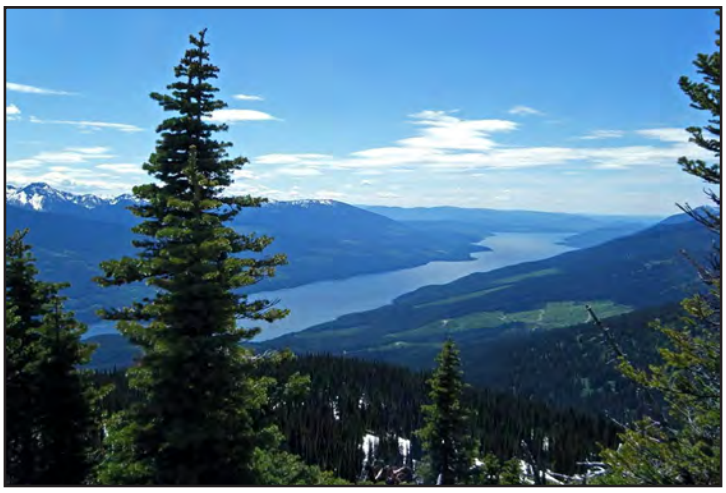
Finally, the CDC lists at least 19 at-risk ecological communities recognized provincially, including 17 blue and 2 red-listed communities that may be present in the proposal area.

BC has close to 2,000 species at risk and must protect large, intact habitats that will act as climate refugia to prevent the loss of biodiversity.

The Irreplaceable Value of a Park

The Quesnel Lake Wilderness promises high potential for nature-based tourism, providing economic opportunities to First Nations and other groups interested in bear viewing and other local conservation-based industries.

Parks tourism is a non-extractive industry that provides far higher revenues to the province than clearcut logging.



A 2010 review by the BC Auditor General found that the province is not doing enough to conserve the ecological integrity in B.C. Parks and Protected Areas. The report recommended the province protect new, large parks to preserve biodiversity into the future.

An analysis in 2020 found that when provincial energy subsidies are taken into account, the province is burdened with a deficit of $1 million per day by forestry operations. This does not include the immeasurable impact to life from floods, fires, landslides and increased climate change.

"Over the past 10 years, it cost British Columbians $365 million per year, on average, to allow forest companies to log publicly-owned forests."

- Forestry Doesn't Pay the Bills, Folks.
David Broadland (2020)

Meanwhile, a provincial government analysis found that the outdoor recreation sector directly contributed $4.8 billion to BC's economy in 2023 alone; 1.5% of BC's real GDP. (BC Gov 2025)

$17 billion in total revenue was contributed by the outdoor recreation industry in 2023, which also generated $3.2 billion in wages in BC.

More than half of people surveyed said that being close to outdoor recreation opportunities heavily influenced where they decided to live.

<u>Parks visitation is also increasing:</u>

In 2022, the BC Parks reservation system saw a 26.5% increase in bookings since 2019. Increasing public demand calls for a significant expansion of our fully protected parks.

Quesnel Lake is a worthy option. With record breaking trophy trout and salmon, the lake boasts a sport fishery that is said to be unparalleled anywhere in British Columbia and perhaps anywhere in the world. Sport fishing is extremely renowned, attracting people from all over North America and internationally to the various fishing adventure businesses (Cariboo Regional District 2009).

Sandy beaches along Quesnel Lake are another attractive feature, making this wilderness a popular destination for campers, wildlife viewers and backcountry recreationists who come to enjoy outdoor activities in scenic landscapes.

Quesnel Lake is also a popular destination for canoeing and kayaking, sailing, rock climbing, hiking and nature tours.

The Quesnel Lake Wilderness provides an opportunity for a long-term, sustainable economy that supports the ecology and communities in the region and beyond. Its protection will create opportunity and abundance for generations of British Columbians to come.



The Inland Rainforest is globally rare and deserves greater representation in our parks system. [Gary Diers]

APPENDIX A - At-Risk Animal Species

The following table lists provincially or COSEWIC-listed animal species confirmed or that may occur in the proposal area. It was compiled through the BC Species and Ecosystem Explorer using a custom polygon encompassing the Quesnel Lake Wilderness proposal. Search Criteria: Animals; Vertebrates & Invertebrates AND BC blue or red-listed OR COSEWIC listed as endangered (E), threatened (T), or special concern (SC) (B.C. Conservation Data Centre 2024). Note that data is limited and complete animal inventories are still needed.

Table 1: Provincially or COSEWIC-listed animal species confirmed or that may occur in the proposal area.

Scientific Name	English Name	BC List	COSEWIC
Accipiter atricapillus atricapillus	American Goshawk, atricapillus sub-species	Blue	NAR
Acipenser transmontanus	White Sturgeon	No Sta-	E/T
Acipenser transmontanus pop. 5	White Sturgeon (Upper Fraser River Population)	Red	E
Acroloxus coloradensis	Rocky Mountain Capshell	Blue	NAR
Aechmophorus occidentalis	Western Grebe	Red	SC
Aeronautes saxatalis	White-throated Swift	Blue	
Anaxyrus boreas	Western Toad	Yellow	SC
Ardea herodias herodias	Great Blue Heron, herodias sub-	Blue	
Asio flammeus	Short-eared Owl	Blue	T
Athene cunicularia	Burrowing Owl	Red	E
Bartramia longicauda	Upland Sandpiper	Red	
Boloria alberta	Albert's Fritillary	Blue	
Botaurus lentiginosus	American Bittern	Blue	
Branta bernicla	Brant	Blue	
Buteo lagopus	Rough-legged Hawk	Blue	NAR
Buteo swainsoni	Swainson's Hawk	Red	
Butorides virescens	Green Heron	Blue	
Calcarius pictus	Smith's Longspur	Blue	
Calopteryx aequabilis	River Jewelwing	Blue	
Charina bottae	Northern Rubber Boa	Yellow	SC
Chondestes grammacus	Lark Sparrow	Blue	
Chordeiles minor	Common Nighthawk	Blue	SC
Chrysemys picta	Painted Turtle	No Sta-	T/SC
Chrysemys picta pop. 2	Painted Turtle - Intermountain - Rocky Mountain Population	Blue	SC
Cicindela hirticollis	Hairy-necked Tiger Beetle	Blue	
Coccothraustes vespertinus	Evening Grosbeak	Yellow	SC
Colias meadii	Mead's Sulphur	Blue	
Coluber constrictor	North American Racer	Blue	T
Contopus cooperi	Olive-sided Flycatcher	Yellow	SC
Cypseloides niger	Black Swift	Blue	E
Dolichonyx oryzivorus	Bobolink	Red	SC
Enallagma civile	Familiar Bluet	Red	

Table 1 continued.

Scientific Name	English Name	BC List	COSEWIC
Enallagma civile	Familiar Bluet	Red	
Enallagma clausum	Alkali Bluet	Blue	
Erebia magdalena	Magdalena Alpine	Blue	
Eremophila alpestris merrilli	Horned Lark, merrilli subspecies	Red	
Euphagus carolinus	Rusty Blackbird	Blue	SC
Falco mexicanus	Prairie Falcon	Red	NAR
Falco peregrinus	Peregrine Falcon	No Sta-	SC
Falco peregrinus anatum	Peregrine Falcon, anatum subspecies	Red	NAR
Falco rusticolus	Gyrfalcon	Blue	NAR
Galba obrussa	Golden Fossaria	Blue	
Galba parva	Pygmy Fossaria	Blue	
Gulo gulo	Wolverine	No Sta-	SC
Gulo gulo luscus	Wolverine, luscus subspecies	Blue	SC
Gyraulus crista	Star Gyro	Blue	
Hesperia nevada	Nevada Skipper	Blue	
Hirundo rustica	Barn Swallow	Yellow	SC
Hydroprogne caspia	Caspian Tern	Blue	NAR
Icteria virens	Yellow-breasted Chat	Red	E
Larus californicus	California Gull	Red	
Lasionycteris noctivagans	Silver-haired Bat	Yellow	E
Lasiurus cinereus	Hoary Bat	Blue	E
Limnodromus griseus	Short-billed Dowitcher	Red	
Magnipelta mycophaga	Magnum Mantleslug	Blue	SC
Megascops kennicottii macfarlanei	Western Screech-Owl, macfarlanei subspecies	Blue	T
Melanerpes lewis	Lewis's Woodpecker	Blue	T
Melanitta perspicillata	Surf Scoter	Blue	
Myotis lucifugus	Little Brown Myotis	Blue	E
Myotis septentrionalis	Northern Myotis	Blue	E
Myotis yumanensis	Yuma Myotis	Blue	
Nannopterum auritum	Double-crested Cormorant	Blue	NAR
Numenius americanus	Long-billed Curlew	Yellow	T
Nycticorax nycticorax	Black-crowned Night-Heron	Red	
Oeneis jutta chermocki	Jutta Arctic, chermocki subspecies	Blue	
Oncorhynchus clarkii lewisi	Cutthroat Trout, lewisi subspecies	Blue	SC
Ophiogomphus occidentis	Sinuous Snaketail	Blue	
Oreamnos americanus	Mountain Goat	Blue	
Oreoscoptes montanus	Sage Thrasher	Red	E
Ovis canadensis	Bighorn Sheep	Blue	
Patagioenas fasciata	Band-tailed Pigeon	Blue	SC
Pelecanus erythrorhynchos	American White Pelican	Red	NAR
Phalaropus lobatus	Red-necked Phalarope	Blue	SC
Physella propinqua	Rocky Mountain Physa	Blue	
Physella virginea	Sunset Physa	Blue	

Table 1 continued.

Scientific Name	English Name	BC List	COSEWIC
Pisidium fallax	River Peaclam	Blue	
Pituophis catenifer	Gophersnake	No Sta-	XT/T
Pituophis catenifer deserticola	Gophersnake, deserticola subspecies	Blue	T
Planorbella columbiensis	Caribou Rams-horn	Red	
Planorbula campestris	Meadow Rams-horn	Blue	
Pluvialis dominica	American Golden-Plover	Blue	
Podiceps nigricollis	Eared Grebe	Blue	
Psiloscops flammeolus	Flammulated Owl	Blue	SC
Rangifer tarandus pop. 1	Caribou (Southern Mountain Popula-	Red	E
Rangifer tarandus pop. 15	Caribou (Northern Mountain Popula-	Blue	SC
Recurvirostra americana	American Avocet	Blue	
Salvelinus confluentus	Bull Trout	Blue	SC
Setophaga castanea	Bay-breasted Warbler	Red	
Setophaga tigrina	Cape May Warbler	Blue	
Setophaga virens	Black-throated Green Warbler	Blue	
Somatochlora brevicincta	Quebec Emerald	Blue	
Somatochlora forcipata	Forcipate Emerald	Blue	
Spea intermontana	Great Basin Spadefoot	Blue	T
Sphaerium occidentale	Herrington Fingernailclam	Blue	
Sphaerium striatinum	Striated Fingernailclam	Blue	
Stagnicola traski	Widelip Pondsnail	Blue	
Taxidea taxus	American Badger	Red	E
Troglodytes hiemalis	Winter Wren	Blue	
Tympanuchus phasianellus columbianus	Sharp-tailed Grouse, columbianus subspecies	Blue	
Tyto alba	Barn Owl	Blue	T
Ursus arctos	Grizzly Bear	Blue	SC
Valvata tricarinata	Threeridge Valvata	Red	
Vertigo arthuri	Callused Vertigo	Blue	

APPENDIX B - At-Risk Plants, Lichens and Ecological Communities

Table 2 below lists provincially or COSEWIC-listed plant and lichen species confirmed or that may occur in the proposal area. It was compiled through the BC Species and Ecosystem Explorer using a custom polygon encompassing the Quesnel Lake Wilderness proposal. Search Criteria: Lichens AND Plants; Vascular plants and Bryophytes AND BC blue or red-listed OR COSEWIC listed as endangered (E), threatened (T), or special concern (SC). Note that initial inventories have confirmed far more species presented than listed here and that complete inventories and lichen ID from initial inventories are still needed.

Table 3 lists provincially at-risk ecological communities that may be present in the proposal area (B.C. Conservation Data Centre 2024).

Table 2: Provincially or COSEWIC-listed plant and lichen species confirmed or that may occur in the proposal area.

Scientific Name	English Name	BC List	COSEWIC
Bartramia halleriana	Haller's apple moss	Blue	T
Botrychium michiganense	Michigan moonwort	Blue	
Botrychium montanum	mountain moonwort	Blue	
Cladonia cyanipes	blue-footed pixie	Blue	
Cladonia decorticata	strip-tease pixie	Blue	
Cladonia parasitica	fence-rail pixie	Red	
Collema coniophilum	crumpled tarpaper	Red	T
Dendriscosticta gelida	greater green moon	Red	
Draba ventosa	Wind River draba	Blue	
Evernia divaricata	mountain oakmoss	Blue	
Leptogium cyanescens	blue-blue vinyl	Red	
Lobaria retigera	smoker's lung	Blue	T
Nephroma isidiosum	pebbled paw	Blue	
Nephroma occultum	cryptic paw	Blue	T
Peltigera gowardii	northwest waterfan	Red	SC
Phaeophyscia adiastola	granulating shadow	Blue	
Pinus albicaulis	whitebark pine	Blue	E
Pterygoneurum kozlovii	alkaline wing-nerved moss	Yellow	T
Taraxia breviflora	short-flowered evening-primrose	Red	

Table 3: Provincially-listed ecological communities that may occur in the proposal area.

Scientific Name	English Name	BC List
Alnus incana / Cornus sericea / Athyrium filix-femina	mountain alder / red-osier dogwood / lady fern	Blue
Betula nana / Carex spp. / Sphagnum spp.	scrub birch / sedges / peat-mosses	Red
Carex lasiocarpa / Drepanocladus aduncus	slender sedge / common hook-moss	Blue
Carex limosa - Menyanthes trifoliata / Drepanocladus spp.	shore sedge - buckbean / hook-mosses	Blue
Carex limosa - Menyanthes trifoliata / Sphagnum spp.	shore sedge - buckbean / peat-mosses	Blue
Dulichium arundinaceum Herbaceous Vege-	three-way sedge	Red
Equisetum fluviatile - Carex utriculata	swamp horsetail - beaked sedge	Blue
Menyanthes trifoliata - Carex lasiocarpa	buckbean - slender sedge	Blue
Pinus contorta / Carex aquatilis / Sphagnum	lodgepole pine / water sedge / peat-mosses	Blue
Pinus contorta / Carex pauciflora / Sphag-	lodgepole pine / few-flowered sedge / peat-	Blue
Pseudotsuga menziesii - Thuja plicata / Dicranum polysetum	Douglas-fir - western redcedar / wavy-leaved moss	Blue
Salix sitchensis - Salix lasiandra var. lasiandra / Lysichiton americanus	Sitka willow - Pacific willow / skunk cabbage	Blue
Scheuchzeria palustris / Sphagnum spp.	scheuchzeria / peat-mosses	Blue
Schoenoplectus acutus Deep Marsh	hard-stemmed bulrush Deep Marsh	Blue
Thuja plicata / Gymnocarpium dryopteris / Hylocomiadelphus triquetrus	western redcedar / oak fern / electrified cat's-tail moss	Blue
Thuja plicata / Paxistima myrsinites	western redcedar / falsebox	Blue
Trichophorum cespitosum / Campylium stel-	tufted clubrush / golden star-moss	Blue
Tsuga heterophylla / Juniperus communis - Paxistima myrsinites	western hemlock / common juniper - false-box	Blue
Tsuga heterophylla - Thuja plicata / Cladonia	western hemlock - western redcedar / clad	Blue

APPENDIX C - Landscape Analysis

QUESNEL LAKE WILDERNESS PARK PROPOSAL LANDSCAPE ANALYSIS	Description	Area (ha) (original VRI analysis)	Cutblocks and burns removed *
QLWP Boundary		261,876	
Total Treed (TC+TM+TB)		196,685	**168,331**
Burned Areas		22,177	
Cutblocks		18,593	
Old Growth Forest	ICH	25,891	23,888
	ESSF	32,125	29,145
	IMA	NA	NA
TOTAL		**58,017**	**53,033**
Older Mature Forest	ICH	3,602	3,356
	ESSF	18,684	17,009
TOTAL		**22,287**	**20,364**
Non Treed			
Lakes & Rivers	LA & RI	2,435	
Bryoid	BY	204	
Exposed Land	EL	55	
Herbacious	HE	14,948	
Herb - Forbs	HF	36	
Rock / Rubble	RO	12,268	
Snow / Ice	SI	1,237	
Shrub Low	SL	28,105	
Shrub Tall	ST	5,948	
TOTAL		**65,236**	
Provincial Timber Harvesting LandBase **		60,770	
ICH Old Growth		11,108	10,396
ESSF Old Growth		4,951	4,510
ICH Older Mature		1,554	1,509
ESSF Older Mature		2,314	2,099
Ungulate Winter Range			
M-RATA-01 No Harvest (WHA 2025)		174,859	157,707
M-RATA-01 modified_harvest Harvest -(WHA 2025)		1,629	1,395
TOTAL		**176,488**	**159,102**

***Cutblock and burn reductions calculated from a combination of govt data and closeup visual survey of ESRI (2016) and Copernicus Sat imagery (2026). Totals in column E are with revised cutblocks and burns removed.**

QLWPP Total TAP Old Growth	39,483 ha

BGC Subzone Variant	TAP Old Growth (within Treed polygons) *	TAP Old Growth within Non Treed Polygons
ESSFwc3	7,579	508
ESSFwk1	11,062	904
ESSFwcw	78	0
ICHwk2	17,617	45
ICHwk4	1,660	28
TOTAL	**37,996**	**1,486**

NOTE: TAP Old Growth

* Calculated from Actual TAP classifcations rather than VRI data *(OG TAP Old Growth Deferral: Background and Technical Appendices)*

It would appear the TAP Old Growth dataset picks up **ALL** Age Class 9 in the latest VRI data. Some are within the "Non Treed" areas. The VRI definition of "Non Treed" areas is as follows:

A polygon is considered Non-Treed if less than 10% of the polygon area, by crown cover, consists of tree species of any size.

This analysis **does not include** polygons that capture Age Classes 9 within the Non Treed polygons (ones that have less than 10% of their area, by crown closure, consisting of tree species of any size).

It would appear that aproximately 1.64 ha of areas classified as 'lakes' or 'rivers' has been included in the TAP Priority Old Growth. This is most likely due to the scale of the TAP analysis.

****** This THLB value is *"an estimate of what area is both legal and economic to harvest, and it is used in the analysis that informs the Chief Forester when determining a timber supply review (TSR) allowable annual cut. The Timber Supply Area (TSA) THLB layer is compilation of the THLB spatial files created to support the various completed TSA TSR processes. It reflects the landbase constraints in place when it was created and may exclude areas that are no longer considered legal (e.g., harvest exclusions established since the TSA TSR) or economic to harvest due to the age of the layer"*

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Quesnel Lake Wilderness Park Proposal
Landscape Analysis Table

Applied Conservation GIS - with reference to the information provided below.

Vegetation Resource Inventory
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QLWPP Total TAP Old Growth
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