

April 20, 2018

The Honourable Catherine McKenna  
Minister of Environment and Climate Change,  
House of Commons  
Ottawa, Ontario  
K1A 0A6

Dear Minister McKenna:

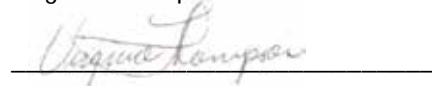
Please find enclosed a s.80 Request under the Species at Risk Act (SARA) for an emergency order to stop logging in Federally identified critical habitat of the Southern Mountain Caribou in the Revelstoke Shuswap Local Planning Unit in British Columbia, Canada. Southern Mountain Caribou are listed as endangered in British Columbia, endangered under COSEWIC, and as threatened under the Federal Species at Risk Act (SARA). This s.80 Request provides clear evidence that logging has already occurred, is actively underway at present, and is planned for the future in critical habitat of this species in this Population Unit. There is logging planned for old growth forest including in non-legal Old Growth Management Areas that are in mountain caribou critical habitat. Old growth forests are crucial for southern mountain caribou habitat, providing for their needs as no other forest can. Once logged, old growth forests as such, are gone forever, thus making mountain caribou recovery much more difficult. Logging effectively destroys the critical biophysical elements required for caribou for many decades, as well as increases exposure to predators known to be the proximate cause of rapid declines. The 2014 Federal Strategy for Recovery of Southern Mountain Caribou has set a goal of "self sustaining" for the Columbia North Herd in the Revelstoke Shuswap Local Planning Unit. This level of recovery or even "assisted long term self sustaining" recovery will be impossible to achieve if logging continues in the critical habitat of southern mountain caribou, particularly in the old forests of this Local Population Unit.

In the Revelstoke Shuswap Local Population Unit, massive efforts for recovery of mountain caribou have been undertaken: the wolf cull, cougar cull, moose and white tailed deer reductions and the maternity pen. However, these efforts will be all for naught if logging continues in critical habitat, particularly old growth critical habitat.

The North Columbia Environmental Society (NCES), Virginia Thompson, mountain caribou representative for the NCES for many years, Lee Harding, wildlife biologist, and Yellowstone to Yukon Conservation Initiative (Y2Y) are submitting this s.80 Request under SARA for an Emergency Order by the Minister of Environment and Climate Change to avoid the imminent threats to the survival and recovery of the herds of southern mountain caribou in the Revelstoke Shuswap Local Population Unit of the Southern Group of Southern Mountain Caribou in British Columbia. By law, s.80(2) compels you to recommend an Emergency Order if you are of the opinion that a species faces imminent threat to its survival or recovery.

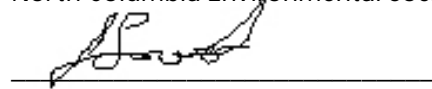
Thank for your urgent attention to this emergency.

Virginia Thompson EdD



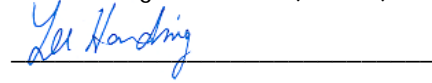
April 19, 2018

North Columbia Environmental Society



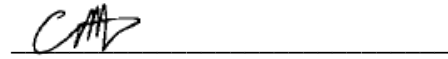
April 19, 2018

Lee Harding PhD RPBio (retired)



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Yellowstone to Yukon Conservation Initiative



April 20, 2018

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*Species at Risk Act*, S.C. 2002, c. 29

Application to

The Honourable Catherine McKenna,  
Minister of Environment and Climate Change

and to

Governor in Council

for an Emergency Order under section 80  
to Protect Critical Habitat of the Revelstoke Shuswap Local Planning Unit of the  
Woodland Caribou, Southern Mountain Caribou population  
(*Rangifer tarandus caribou*)  
Against Timber Harvesting and Related Road Building on  
Provincial Crown Land

by

The North Columbia Environmental Society  
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We wish to acknowledge with thanks the Legal Framework by  
William J. Andrews, Barrister & Solicitor  
Vancouver, BC

We wish to acknowledge with thanks the help of the  
Wells-Gray Gateway Protection Society

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## **1.0 Introduction**

### **1.1 Overview**

The endangered Revelstoke Shuswap Local Population Unit (LPU) of southern mountain caribou faces imminent threats to both its survival and its recovery. All of the population estimates show precipitous, continuous declines in numbers even since the *Species at Risk Act* (SARA) was enacted in 2002. Although the population of the Columbia North Herd has apparently stabilized at 147 animals in the last 2017 census<sup>1</sup>, this is only after heroic efforts such as a maternity pen, as well as drastic moose reductions, and now in 2018, the second annual wolf cull along with the addition of cougar and white tailed deer reductions. A few more years of data will be needed to confirm a stable (or other) trend. The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) has designated the Southern Mountain population of Caribou *Rangifer tarandus*, of which the Revelstoke Shuswap Local Population Unit is a component, as “endangered” and says the threats to its survival are continuing and escalating. The Provincial conservation status of the southern mountain caribou population is “critically imperiled.” The proximate threat has been unnaturally high predation rates as a result of habitat alterations particularly logging that support higher densities of prey such as moose, deer and elk and correspondingly higher densities of predators that in turn prey on southern mountain caribou. A reduction in moose from 1650 to 466 animals or 71% of the moose population in the period between 2003 and 2013<sup>2</sup>, a five year aerial wolf cull beginning in 2017, and a maternity pen, Revelstoke Rearing in the Wild (RCRW), have been heroic, costly and drastic efforts to stave off the

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<sup>1</sup> Email from Cory Legebokow, Jan.19, 2018. In press.

<sup>2</sup> Robert Serrouya, Bruce N. McLellan, Harry van Oort, Garth Mowat, Stan Boutin. “Experimental moose reduction lowers wolf density and stops decline of endangered caribou”, Peer J, August, 29, 2017.

decline of the Columbia North Herd in particular. Despite these efforts, the Columbia North Herd's decline, while seeming to level off, has not increased. (see Section 2.9) The maternity pen, which has cost approximately 1.5 million dollars over 4 years<sup>3</sup>, has been a qualified success. Government of Canada has provided funding for the maternity pen through the Aboriginal Fund for Species at Risk (AFSAR) and the Habitat Stewardship Program of Environment Canada and Climate Change (ECCC). The net addition after 3 years of maternity penning has been 8 calves.<sup>4</sup> This year a reduction in white-tailed deer has been announced as well as a cougar cull. (Serrouya and B. McLellan 2016)<sup>5</sup>. However, all these expensive and drastic efforts paid for by one arm of governments, both federal and provincial, are being confounded by the failure by another arm of government to protect caribou critical habitat. This working at cross purposes will lead to the failure to recover caribou.

Old growth forest is key critical habitat for mountain caribou recovery and the continued logging of old growth forest is closing the door to recovery.<sup>6</sup> Depending on the definition of old growth forest, it will take 140 -200 years or more for a forest to be effective critical habitat for mountain caribou. We will show how, according to BC Provincial Government scientists, insufficient critical habitat has been protected in the Revelstoke Shuswap Local Planning Unit to recover mountain caribou, even to "assisted long term self sustaining" levels (Valdal Report, May, 2007), let alone "self sustaining" levels as called for in the 2014 federal Recovery Strategy. Given this lack of sufficient critical habitat

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<sup>3</sup> Figure of 1.5 M dollars provided by Jody Lownds, President Revelstoke Rearing in the Wild, March, 2018.

<sup>4</sup> Legebokow, Cory and Serrouya, Robert, 2017 The maternity pen (Revelstoke Rearing in the Wild) began in 2013.

<sup>5</sup> R. Serrouya, Bruce N. McLellan, "Next Steps for Southern Mountain Caribou recovery in planning Unit 3A, The Revelstoke Shuswap Region, October 12, 2016.

<sup>6</sup> Wittmer, Heiko U., Ahrens, N.M., McLellan, Bruce N., "Viability of mountain Caribou in British Columbia, Canada: Effects of Habitat change and population density": Biological Conservation, Sept. 2009.

protection, culling predators and prey will need to be done for all intents and purposes, indefinitely. This will be discussed in more detail in Section 2.11 below.

The 2014 federal Recovery Strategy declares that recovery of these endangered animals is both technically and biologically feasible. The Strategy has identified critical habitat areas in Columbia Valley north of Revelstoke as well as west and east of Revelstoke (See Appendix B) that must allow for low predation risk to the caribou, defined as wolf population densities less than 3 wolves/1000 km<sup>2</sup>. However, the wolf density in the critical habitat of the subject herds was well above that level: 7 wolves/1000km<sup>2</sup> (2014 federal Recovery Strategy)

The critical habitat in the Columbia Valley north of Revelstoke, east including and beyond Revelstoke National Park, and west of Revelstoke in the Monashees had already been extensively disturbed by timber harvesting and road building prior to the issuance of the 2014 federal Recovery Strategy. See maps of critical habitat, (Appendix B – 2014 federal Recovery Strategy p.88 and Appendix C), old forest, (Appendix F), logging in critical habitat since 1940 (Appendix D), road building in critical habitat and historic range (Appendix F) and roads, rails and transmission lines (Appendix G). Moreover, Provincial approval of cut blocks and clearcut logging has continued even after the issuance of the 2014 Federal Recovery Strategy. New timber harvesting within matrix and critical habitat is imminent and the Province of B.C. is unwilling to prevent it (see digitised Forest Stewardship Plans in Section 5.1, “Imminent Threats”, Appendices J to M). The evidence in Appendices C to G is that if logging persists in the subject area, then wolf density is more likely than not to persist, and certainly will return as soon as the wolf cull, the cougar cull and the reductions in moose and white tailed deer end. This continued logging in caribou critical habitat will exacerbate the existing imminent threats to the survival – and certainly the recovery – of the Revelstoke Shuswap LPU caribou herds. But just as importantly, the mature and old growth critical habitat once logged will never be retrieved as functioning critical habitat in the future, since it will go into logging rotation which often begins as early as 60 years after harvest and usually occurs before trees reach mature status of at least 120 years. Certainly forests do not

reach old growth levels of maturity on a tree farm and old growth is the highest functioning critical habitat for mountain caribou. This is the real emergency here.

Neither the 2014 federal Recovery Strategy nor promised future “actions plans” have legal enforceability to prohibit damage to the critical habitat on non-federal land. There are only two mechanisms under SARA for the federal government to achieve effective protection of this critical habitat when the Province is manifestly unwilling to do so: a ‘safety net’ order under section 61, or an emergency order under section 80. The Federal and Provincial Governments have issued a draft s.11 agreement regarding the Central Group of Mountain Caribou. Although this does not pertain directly to the Southern Group of Mountain Caribou of which the Revelstoke Shuswap LPU is a part, should this vehicle be used with similar approaches for recovery in our Local Planning Unit (LPU), we think it would fall far short of the recovery needs of our LPU. The Applicants are asking for an emergency order to halt any further destruction of critical habitat on provincial Crown land until the slow-moving process for developing a safety net order under section 61 is completed.

The s.61 safety net process has indeed begun. In 2016, the federal and provincial governments initiated a joint study of whether the province is providing “effective protection” of the southern mountain caribou (Northern, Central and Southern Groups) as defined in the 2014 federal Recovery Strategy. This resulted in a February 2017 ‘effective protection report’ for the Central Group and then the aforementioned s.11 agreement under SARA between the Federal Government and the Province of British Columbia for the Central Group. However, an ‘effective protection report’ for the Southern Group has not materialized. The lack of an “effective protection report” for the Southern Group as was expected by the end of 2017 (as called for in the 2014 federal Recovery Strategy) has caused us to request a s.80 order. There is no statutory time limit for an s. 61 and there is no official commitment to a specific date, and therefore no reason to expect a sudden acceleration of the methodical pace. In the absence of the

requested emergency order, substantial new destruction of critical habitat in the Revelstoke Shuswap LPU will – not might – have occurred before the Governor in Council is in a position to exercise its authority under section 61. To prevent such an outcome is precisely the role of an emergency order under s.80 of SARA.

Should the Federal Government and the Province of British Columbia decide to use the protections offered in the current s. 11 for the Central Group, we would find it to be unsatisfactory. We find that the protections offered in this agreement are weak and would not effectively lead to the recovery of the mountain caribou in the Revelstoke Shuswap Local Planning Unit.

The federal Governor in Council has statutory authority under s.80 of SARA to make an emergency order to prohibit commercial timber harvesting and road building on non-federal lands where there are imminent threats to the survival or recovery of the endangered Columbia North, Columbia South and Frisby-Boulder-Queest herds of the Revelstoke Shuswap LPU. Such an order will prevent new damage to the already demonstrably compromised critical habitat of the Revelstoke Shuswap herds pending the completion of decision-making regarding a 'safety net' order under s.61.

The first step toward an emergency order is for the Minister of Environment and Climate Change to make an objective determination based on the best available scientific information that the Revelstoke Shuswap LPU faces imminent threats to its survival or recovery. This decision must be made in a timely manner, bearing in mind the emergency nature of the order requested. Timber companies are logging in federally designated critical habitat today, as you read this; each hectare logged is another hectare that caribou need but will never have again.

## **1.2 Actions requested**

This is an application under section 80 of the *Species at Risk Act* for the Minister to recommend, and for the Governor in Council to make, an emergency order to provide

for the protection of the Revelstoke Shuswap LPU of southern mountain caribou by prohibiting timber harvesting and related road building within critical habitat and matrix range critical habitat on provincial Crown land including, for identification, in the Columbia River watershed north from the Illecillewaet River and just south of the Trans Canada Highway to the Kinbasket Lake watershed, and west from Glacier National Park to at least Sicamous. The Applicants respectfully request the following actions:

- (a) that the Minister of Environment and Climate Change form the opinion under s.80(2) of SARA that the herds of the Revelstoke Shuswap LPU face imminent threats to their survival or recovery and recommend to the Governor in Council that it make an emergency order to provide for the protection of the Revelstoke Shuswap LPU and that the Governor in Council under s.80(1) make an emergency order to provide for the protection of the Revelstoke Shuswap LPU.
- (b) that pursuant to s.80(4)(c)(ii)(A) the emergency order identify habitat on provincial Crown land that is necessary for the survival or recovery of the Revelstoke Shuswap LPU in the area to which the emergency order relates,
- (c) that pursuant to s.80(4)(c)(ii)(B) the emergency order include provisions prohibiting timber harvesting and related road building on provincial Crown land within the critical habitat to which the emergency order relates, and
- (d) that pursuant to s. 97(2) the emergency order prescribe which of its provisions may give rise to an offence that the Minister expedite completion of an 'effective protection report' for the Southern Group of the southern mountain caribou and form an opinion to support a recommendation for a 'safety net' order under s.61
- (e) that the Minister expedite completion of an 'effective protection report' for the Southern Group of the southern mountain caribou and form an opinion to support a recommendation for a 'safety net' order under s.61.

### **1.3 Applicants**

This application is made by the following organizations and individuals. Descriptions of the Applicants are provided in Appendix A.

- North Columbia Environmental Society
- Virginia Thompson, EdD, North Columbia Environmental Society
- Lee Harding, PhD, RPBio (retired)
- Yellowstone to Yukon Conservation Initiative

### **1.4 Focus of request**

The focus of the request is the Revelstoke Shuswap LPU of the Southern Group, of the Woodland Caribou, Southern Mountain population, as described in the 2014 federal Recovery Strategy.

### **1.5 Terminology**

Canada and B.C. use somewhat different terminology regarding what the federal 2014 Recovery Strategy calls the “southern mountain caribou.” This application uses the federal terminology except regarding references that use the B.C. terminology.

### **1.6 Outline of application document**

Section 1: this Introductory section provides an overview of the reasons for the application, the names of the applicants, and the details of the actions requested.

Section 2 reviews the history of the Revelstoke Shuswap Local Planning Unit from 1974 to the present. The focus is on the declining population levels, the causes of the decline, critical and matrix habitat and commercial timber harvesting, and the actions of the B.C. and federal governments.

Section 3 focuses on the Species at Risk Act, the BC Mountain Caribou Recovery Plan 2007, the downgrading of retention in the 2007 Recovery Plan, the Mountain Caribou Recovery Implementation Plan (MCRIP), the Biodiversity Amendment of the RHLPO in 2011, the MOE Study team Review, and the 2014 COSEWIC upgrading of the listing of southern mountain caribou to “endangered”, the 2014 federal Recovery Strategy, critical habitat protection on non-federal lands in SARA, and the first mountain caribou protection study under SARA.

Section 4 focuses on the population numbers and trends of the Revelstoke Shuswap Local Population Unit which is comprised of the Columbia North Herd, the Columbia South Herd and the Frisby-Boulder-Queest Herd. The Central Group Protection Study is briefly discussed. Also discussed is matrix range as critical habitat for mountain caribou, the Recovery Implementation Group 2005, the RIG recommending protection of matrix habitat, and Type 2 matrix range in the 2014 federal Recovery Strategy.

Section 5 documents the imminent threats to the survival and recovery of the Columbia North, Columbia South and the Frisby-Boulder-Queest caribou herds due to past, present and impending timber harvesting in critical habitat and matrix range critical habitat. The willingness of the Province of B.C. to allow timber harvesting in critical habitat and matrix range critical habitat is addressed. Specific timber harvesting cutblocks in the subject area are identified.

Section 6 outlines the legal framework for this application. It starts with Canada's 1992 ratification of the UN Convention on Biological Diversity and the enactment of the federal *Species at Risk Act* in 2002. The section describes the provision of SARA that authorizes an emergency order to prohibit activities that may adversely affect a listed terrestrial mammal such as the Revelstoke Shuswap LPU mountain caribou on non-federal land. The legal requirements and the applicable legal principles are set out.

Section 7 is a short conclusion.

References are listed in Section 8.

Appendices are contained in Section 9.

## **2.0 Mountain Caribou decline begins**

### **2.1 Southern Selkirk caribou “endangered” under U.S. *Endangered Species Act***

The first published data on declining British Caribou populations was In 1974, when R. York Edwards related declines to loss of old-growth forest caused by large forest fires in the Wells Grey area.<sup>7</sup> He followed this with a series of papers on caribou biology that showed their utter dependence on old-growth forest.

David J. Freddy completed a Master’s thesis on the caribou of the “Selkirk caribou herd”. While focused on the Idaho population, he provided quantitative data on the decline of caribou in the Selkirk Mountains generally, including those in British Columbia.<sup>8</sup> Lee E. Harding, a wildlife biologist who had a cabin in the Selkirk Mountains in British Columbia and who had guided for Northern Mountain Caribou, followed up with an article in BC Outdoors magazine, citing Edward’s paper, Freddy’s thesis and his own observations that suggested a decline in the central Selkirks.<sup>9</sup> In 1984, American state and federal agencies declared the southern Selkirk population, which straddles the Canada-USA border, as endangered under the U.S. *Endangered Species Act*.<sup>10</sup>

Several British Columbia provincial forest and wildlife managers reported declining caribou populations province-wide during the late 1970s and early 1980s, and in 1985

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<sup>7</sup> Edwards, R. Y. 1954. Fire and the decline of a mountain caribou herd. *Journal of Wildlife Management* 18:521-526.

<sup>8</sup> Freddy, D. J. 1974. Status and management of the Selkirk caribou herd, 1973. M.Sc. Thesis thesis, University of Idaho.

<sup>9</sup> Harding, L. E. 1975. Our mountain caribou: an endangered species? *B.C. Outdoors* 31:24-31.

<sup>10</sup> Harding (2009), pdf p.3.

convened a symposium to identify causes and possible solutions.<sup>11</sup>

As southern mountain caribou populations continued to decline, British Columbia began efforts to develop a recovery plan in 1988.<sup>12</sup>

A B.C. preliminary recovery plan was published in 1994, but was not implemented.<sup>13</sup>

## **2.2 Toward a Mountain Caribou Strategy**

In November 1997, the BC Ministry of Environment, Lands and Parks issued a working report titled “Toward a Mountain Caribou Management Strategy for British Columbia: Habitat Requirements and Sub-population Status.”<sup>14</sup> The authors’ findings include the following:

- (a) “Mountain caribou are of special concern provincially because of their dependence on some of the old-growth forests that are being removed by forest-harvesting activities.” This was not new information: the conflict between caribou habitat requirements and timber harvesting in B.C. had been the subject of an extensive review by the Ministry in 1985.<sup>15</sup>
- (b) “Forest harvesting has been recognized as a key management concern in most mountain caribou ranges outside of parks.”<sup>16</sup>
- (c) Hunting, human disturbance and predation are important factors. However, “threats

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<sup>11</sup> Page, R. 1985. Caribou research and management in British Columbia: proceedings of a workshop. Kamloops, B.C., Ministry of Forests and Ministry of Environment. 268 pp.

<sup>12</sup> Harding (2009), pdf p.3.

<sup>13</sup> Harding (2009), pdf p.3.

<sup>14</sup> Simpson et al. (1997).

<sup>15</sup> Simpson et al. (1997), pdf p.10.

<sup>16</sup> Simpson et al. (1997), pdf p.14.

to caribou habitat represent the greatest challenge.”<sup>17</sup>

d) The authors distinguish “inoperable” and “protected” habitat. They indicate that relying on inoperable areas to provide adequate caribou habitat will not be sufficient.<sup>18</sup>

### **2.3 Mountain caribou red listed and designated “threatened”**

In May 2000, Caribou (southern mountain population)<sup>19</sup> was assigned Provincial Conservation Status “S1,” meaning “Critically Imperiled” at the sub-national (provincial) level.<sup>20</sup>

Also in May 2000, COSEWIC designated as “threatened” what it then referred to as part of the “Western population” (de-activated in May 2002) and later referred to as the Southern Mountain population.

In May 2002, COSEWIC re-examined and confirmed its designation as “threatened” for the Woodland Caribou within the Southern Mountains National Ecological Area (SMNEA), which includes the “mountain caribou ecotype” at issue. The reason for the designation:

“Local herds in the Southern Mountain population are generally small, increasingly isolated, and subject to multiple developments. Their range has shrunk by up to 40% and 13 of 19 herds are declining. The most southerly herds are likely to disappear. Many herds are threatened by decreasing habitat quantity and quality, harassment and predation.”<sup>21</sup>

In 2002, the B.C. government appointed a team of biologists who produced a new

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<sup>17</sup> Simpson et al. (1997), pdf p.6.

<sup>18</sup> Simpson et al. (1997), pdf p.6.

<sup>19</sup> Scientific name: *Rangifer tarandus* pop. 1.

<sup>20</sup> B.C. Conservation Data Centre. 2017. BC Species and Ecosystems Explorer. B.C. Min. of Environ. Victoria, B.C. Available: <http://a100.gov.bc.ca/pub/eswp/> (accessed Mar 30, 2017).

<sup>21</sup> COSEWIC (2002), pdf p.4.

“Strategy for the Recovery of Mountain Caribou in British Columbia.”<sup>22</sup>

### **3.0 Species at Risk Act**

In 2002, the Parliament of Canada enacted the *Species at Risk Act*. “Caribou, Woodland (*Rangifer tarandus caribou*) Southern Mountain population” is listed in Schedule 1, Part 3 Threatened Species, which came into force June 5, 2003. As such, SARA, s.42(2) required the Minister of the Environment to prepare a recovery strategy for the southern mountain caribou within four years of the species being listed, i.e., June 2007.

On April 21, 2004 the federal Minister of the Environment filed on the SARA Registry a response statement regarding the southern mountain caribou saying that “A recovery strategy under SARA is to be developed by June 2007.”<sup>23</sup> (A recovery strategy was issued in 2014, as discussed below.)

In May 2005, Canada and B.C. entered a ten-year Agreement on Species at Risk creating an administrative framework for both levels of government to “cooperatively exercise their respective powers and duties to ensure a coordinated and focused approach to the delivery of species at risk protection and recovery through legislation, policies and operational procedures in B.C.”<sup>24</sup>

#### **3.1 BC Mountain Caribou Recovery Plan 2007**

In October 2007, the B.C. government announced a Mountain Caribou Recovery Plan (MCRP) with a goal to restore the mountain caribou population (then 1,900) to the pre-

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<sup>22</sup> Mountain Caribou Technical Advisory Committee (2002).

<sup>23</sup> Minister of the Environment (2004).

<sup>24</sup> Canada-B.C. Agreement (2005), section 4.1. On its terms, the Agreement terminated in April 2015. The SARA Registry does not indicate that it has been renewed.

1995 level of 2,500 animals within 20 years.<sup>25</sup> The focus of MCRP is on high elevation habitat and not on low elevation critical or critical matrix habitat. For the Revelstoke Shuswap LPU, the Columbia North herd was estimated at 150 animals with a recovery target of 363 animals, or 200 caribou/1000km<sup>2</sup>.<sup>26</sup>

The recovery plan was drafted by a Science Team supported by regional committees composed of government and private caribou biologists, Ministry of Forests staff and representatives of the timber industry, and these reported to senior management committees that were directed by government Ministers of relevant ministries. A number of caribou in all herds had been radio-collared (VHF radio and/or satellite GPS receiver-transmitters) so that by 2007, a multi-year record was available of seasonal caribou distribution and their use of seasonal habitats. For the Revelstoke-Shuswap LPU herds, this record was summarized in a map, entitled “2007–08 SARCO Planning Unit 3A Revelstoke-Shuswap”. This map is enclosed herewith as Appendix N and is referenced below in discussion of critical caribou habitats that were, and were not, protected as part of the BC Recovery Plan.

To delineate “core herd boundaries”, the Science Team used statistical procedures “fixed kernel” or similar” that eliminated as much as 40% of recorded, peripheral locations<sup>27</sup> to concentrate the caribou protection zones in the centres of their ranges that caribou used most. Although this method is standard practice in population biology because it excludes wanderers or vagrants that sometimes show up outside of their

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<sup>25</sup> Cover letter, A Review of Management Actions to Recover Mountain Caribou in British Columbia, November 23, 2009.

<sup>26</sup> Email from Rob Serrouya to Frank Wilmer ILMB:EX October 9, 2007. See Appendix H for entire email

<sup>27</sup> For example, Serrouya, R., B. McLellan, G. Pavan, K. Furk, and C. Apps. 2006. Implementation of Caribou Research in the Okanagan-Shuswap Forest District Unpublished manuscript. 11 pp.

normal range, a more normal procedure is to include 95% of locations<sup>28</sup>. But even 95% fixed kernel would be inappropriate in the case of an altitudinally migrating species such as southern mountain caribou because it eliminates some of the critical winter habitat. In this case, since each study was centred on a caribou subpopulation's core, high-elevation habitat, it was the caribou usage of peripheral, low-elevation winter habitat that was omitted. Also, the VHF radio telemetry only came into wide use for caribou in the 1980s and satellite telemetry in this century, so the aggregate of all locations only show the contracted caribou range resulting from habitat damage and disturbance that was intensive from the 1970s onward. This played well into the hands of those on the recovery planning committees who wanted to allocate the maximum amount of fibre, especially the low-elevation cedar and hemlock, to the sawmills and pulp mills.

The planning teams also had specific, politically-driven constraints in terms of the maximum amount of "fibre"—meaning old growth forest to be converted into lumber and pulp (these constraints are described elsewhere, for example, by Harding (2009). Therefore, during the 2007–2008 planning the teams excised from the "core herd boundaries" high-value (mostly low elevation) timber stands. Above the "caribou line", negotiated old growth retention zones for caribou were protected partially (because some logging is still allowed as "modified" harvest) as GAR (Government Acts and Regulations) orders designating portions of the core habitat as Ungulate Winter Range (UWR).

The result was a "recovery plan" that did not include protection for a huge amount of caribou habitat, especially early winter and late winter habitat, that was occupied and regularly used by caribou. Unfortunately, when Environment Canada mapped "Critical

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<sup>28</sup> E.g., Wittmer, H. U., B. N. McLellan, D. R. Seip, J. A. Young, T. A. Kinley, G. S. Watts, and D. Hamilton. 2005. Population dynamics of the endangered mountain ecotype of woodland caribou (*Rangifer tarandus caribou*) in British Columbia, Canada. *Canadian Journal of Zoology* 83:407-418

High Elevation and Low Elevation” habitat in the 2014 Recovery Plan, it uncritically accepted the provincially designated UWR caribou protection zones and omitted these large areas of habitat that caribou were using and occupying annually.

To effectively encompass all of a caribou subpopulation’s range for conservation purposes, its critical habitat and protection zones should include all telemetry locations, plus a buffer that would allow for (a) caribou that used peripheral habitats but were not radio-tagged, (b) area for population expansion and (c) connectivity corridors to permit gene flow and prevent in-breeding depression and other effects of loss of genetic diversity.

This Recovery Plan was then moved into the Mountain Caribou Recovery Implementation Plan (MCRIP) with a Progress Board to monitor the ongoing implementation and success of the Recovery Plan. There are three dimensions of the Recovery Plan: retention of habitat, recreation (mostly snowmobiling) and commercial recreation i.e. heli-cat skiing, and predator prey control. For our purposes here, we will focus on the habitat aspect of the Recovery Plan for Planning Unit 3A (which is virtually identical to the Revelstoke Shuswap Local Planning Unit), the MCRIP and the state of critical habitat for mountain caribou in the Revelstoke Shuswap LPU. It is our contention that the habitat which was retained in the Mountain Caribou Recovery Plan of 2007 was inadequate, that it was then further eroded to virtually nothing four years later in 2011 under the Biodiversity Amendment of the Revelstoke Higher Level Land Use Plan Order (RHLPO) , and that the situation is now critical in terms of the need to stop the logging of class eight and nine forest in mountain caribou critical habitat before the possibility of long term recovery in the Revelstoke Shuswap Local Population Unit is lost forever.

### **3.2 Habitat Retention Downgraded in Planning Unit 3 A (Revelstoke Shuswap Local Population Unit)**

Leading up to the Mountain Caribou Recovery Plan (MCRP) of October, 2007, there

was approximately 40% of core habitat retained for mountain caribou under existing land use plans (Revelstoke Higher Level Land Use Plan of 2005 and the Okanagan Shuswap Land Use Plan) in the Revelstoke Shuswap Local Population Unit (LPU). The situation around the status quo retention going into this Recovery Plan is discussed clearly in the quote below from an October 9, 2007 email from Rob Serrouya to Frank Wilmer, both members of the government Science Team working on the Recovery Plan.

“For the Okanagan Shuswap (OKSHU) District, 9,900 ha of THLB caribou retention was mapped in 2006 and formed the basis of the status quo, as part of the existing OKSHU LRMP. This area equated to about 31% of the Columbia Forest Land Base (CFLB) below the operability line. In early 2007, this area was increased to 40% of the CFLB below the operability line, to be consistent with adjacent districts’ land use plans. The additional area required about 4,000 ha to get to 40%, 2,600 of which is THLB. This 2,600 comes out of the 10,000 ha (to be retained in the 2007 Mountain Caribou Recovery Plan) for planning unit 3 A. This 40% area was signed off and agreed to by the MoE, SOFA (Okanagan licensees acronym), researchers, and I think ENGO’s also. So now we are left with about 7,400 ha of THLB to deploy.”<sup>29</sup>

The Mountain Caribou Project, a coalition of eight environmental organizations which came together to advocate for protections for caribou leading up to the Recovery and Implementation Plan of 2007, objected strenuously on many occasions to counting this 2600 ha from former land use plans toward the retention in the new 2007 Recovery Plan.<sup>30</sup>

Although the retention of approximately 40% of core caribou habitat may sound substantial (referring to what was retained for caribou in the land use plans before the 2007 Recovery Plan), recall (see above) that the core herd boundaries themselves were

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<sup>29</sup> Email Serrouya to Wilmer ILMB:EX October 9, 2007. See Appendix H for entire email.

<sup>30</sup> Letter to Peter Lishman, Project Director, Integrated Land Management Bureau from Joe Scott, for Mountain Caribou Project, March 17, 2008. See Appendix I.

drawn to eliminate up to 40% of caribou locations, mostly in early winter and late winter habitat. Mountain caribou were declining at an alarming rate with this level of protection. The situation was so dire that government deemed it necessary to have a new protection plan with increased retention of habitat and more recreational closures to recover this provincially endangered species.

Government scientists provided options for different levels of recovery for caribou ranging from "Self Sustaining", "Assisted Long Term Self Sustaining", "Maintain with Resilience", to "Status Quo".

For the Revelstoke Shuswap Planning Unit 3 A in the 2007 MCRP, the Provincial government chose the "Assisted Long Term Self Sustaining" option for recovery. To achieve this option, government scientists working for the Species at Risk Coordination Office (SARCO) said 34,000 ha would need to be retained in Planning Unit 3A (Valdal Report, 2007).<sup>31</sup> However, government decided to retain only 10,000 ha for socio-economic reasons.<sup>32</sup> It was thought that this drastic reduction probably downgraded our option for recovery to "Maintain with Resilience". To quote again the October 9, 2007 email from Provincial Science Team members Rob Serrouya to Frank Wilmer:

"Clearly 10,000 ha won't be enough to cover off all these rules, (referred to in same email)..... In the end, SARCO/Gov't appears to be choosing an option that is somewhere between ALTS (Assisted Long Term Self Sustaining) and Maintain with Resilience."<sup>33</sup>

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<sup>31</sup> BC Species at Risk Coordination Office's Draft Mountain Caribou Recovery Strategy: Analysis of Habitat Options for Forest Industry Stakeholders by Eric J. Valdal, Steven F. Wilson and Jeff Stone. March 14, 2007.p.29.

<sup>32</sup> *Ibid.*

<sup>33</sup> Email from Serrouya to Wilmer, Oct. 9, 2007.

However, the situation was even worse, for as discussed above, government then decided to count 2600 ha of habitat retained under former land use plans toward the already-downgraded 20,000 ha retention. This left only 7400 ha of new protection. Since the 2014 federal Recovery Strategy called for a Self Sustaining level of recovery for the Revelstoke Shuswap LPU, then the retention which would be needed would be well above the 34,000 ha called for in the Assisted Long Term Self Sustaining option chosen by the BC Government in 2007.

### **3.3 Mountain Caribou Recovery Implementation Plan 2007 onward**

This section (up to Section 4.0) addresses some developments under the MCRIP pertaining to the Revelstoke Shuswap PU 3A and the Revelstoke Shuswap LPU.

### **3.4 Biodiversity Amendment of RHLPO invoked in 2011**

In 2011, a Biodiversity Amendment under the Revelstoke Higher Level Land Use Plan Order of 2005 (RHLPO) was made. This amendment, which was put into the RHLPO in anticipation of increased forest retention under a new caribou recovery plan, stated that if there were negative impacts to timber supply with the new caribou recovery plan, the forest licensees in Planning Unit 3A could log Old Growth Management Areas to compensate for what had been retained. The result was that 7049 ha of mostly Old Growth Management Areas were allowed to be logged by the affected licensees.<sup>34</sup> This would almost entirely replace the 7400 ha which they had lost in the 2007 Recovery Plan. In fact they gained more old growth forest through this Biodiversity Amendment. The Forest Practices Board stated in their report of February, 2013 in response to a

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<sup>34</sup> Forest Practices Board “Biodiversity Management in the Revelstoke Timber Supply Area”, Complaint Investigation # 121010, FPB/IRC/187, February 2013.p 7. This number of 7049 ha was verified by the FPB which is a credible third party source.

complaint brought by the North Columbia Environmental Society and Wildsight Golden re the Biodiversity Amendment:

“.....reduction of “old” forest retention to one-third of the original requirement in the low BEO areas, and removal of requirements to retain “mature plus old” forest from all BEOs will result in less older forest retained overall, particularly within the lower elevation ICH BEC zone. Logging these areas will likely act to fragment ecosystem connectivity and may make caribou recovery more difficult.”<sup>35</sup>

The Forest Practices Board also issued a caution regarding the dependence on not harvesting the inoperable areas and the ultimate problem that there is an inability to assess whether biodiversity conservation is actually effective. The FPB stated:

*“....(the) amendment’s “success” in retaining biodiversity depends on inoperable forests remaining unharvested. Also unknown is if current or even original RHLPO provisions for biodiversity conservation will actually be effective in maintaining biodiversity.”*<sup>36</sup>

Caribou need old growth forest for food and protection from predators. Old growth also does not attract deer and moose and then wolves which follow them and then incidentally prey on caribou. The Assisted Long Term Self Sustaining option for recovery is still down on paper as the option which is operational in Planning Unit 3 A, when in fact we are certainly in the Maintain with Resilience option, but after the Biodiversity Amendment of RHLPO order, we may have fallen even lower into the Status Quo option. The Assisted Long Term Self Sustaining option says “some” predator prey control would be required in the short term until the forest habitat can grow back. The Maintain with Resilience option however, requires “indefinite” predator

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<sup>35</sup> *Ibid*.p.8.

<sup>36</sup> *Ibid* p.8.

prey control, and Status Quo means it is not worth doing predator prey control.<sup>37</sup> The caribou herd(s) are left to their own devices i.e. written off. Instead the predator-prey control dimension of the Recovery Plan of 2007 has become the proxy for retention of critical habitat in Planning Unit 3 A (Rev. Shuswap LPU). It is a desperate attempt to continue logging as usual.

The conclusion is: the habitat piece of the Mountain Caribou Plan of 2007 and then MCRIP is not in place in our Revelstoke Shuswap Planning Unit 3 A (Revelstoke Shuswap LPU).

### **3.5 MOE Study Team Review and MCRIP**

In November 2009, the B.C. Ministry of Environment issued a study team's "Review of Management Actions to Recover Mountain Caribou in B.C." The study team defined and acknowledged the importance of "matrix habitat."<sup>38</sup> However, it confirmed that "Forest management in the matrix habitat was not a government commitment as per the MCRIP."<sup>39</sup>

The study team also concluded that the BC government's wolf control efforts were ineffective in achieving the MCRIP objectives and that as a result there would be pressure to prohibit timber harvesting and road building within matrix habitat.<sup>40</sup>

In 2011, COSEWIC reconfirmed the "Southern Mountain caribou of southern British Columbia (including the Revelstoke Shuswap herds) as Designatable Unit 9, (DU9),

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<sup>37</sup> Mountain Caribou Recovery Plan, 2007.

<sup>38</sup> 2009 Review, pdf p.10.

<sup>39</sup> 2009 Review, pdf p.11.

<sup>40</sup> 2009 Review, pdf p.10.

with some modifications of boundaries.<sup>41</sup> COSEWIC concluded that Southern Mountain caribou differs markedly from other caribou, based in particular on arboreal lichens being its single forage type during winter. COSEWIC expressed the significance of DU9 as follows:

“Continued loss of these most southerly populations of caribou would result in an extreme northward contraction of the species range, and the certain disappearance of caribou in adjacent Idaho, which are classified as endangered under the U.S. Endangered Species Act.”<sup>42</sup>

As of April 13, 2018, it has just been announced to the media that the South Selkirk herd which crosses the boundary into the U.S. is down to 3 caribou, all female. This herd is now functionally extirpated according to British Columbia scientists.

### **3.6 COSEWIC upgrades southern mountain caribou to “endangered”**

In May 2014, COSEWIC reviewed the classification of the southern mountain caribou and upgraded the Southern Group (as well as the Central Group) from “Threatened” to “Endangered.” COSEWIC states:

“The current estimate for the population is 1,356 mature individuals, which has declined by at least 45% in the past three generations [of caribou], and 27% since the last assessment in 2002. All but two extant subpopulations are estimated to contain fewer than 250 mature individuals, with 9 of these having fewer than 50, and 6 with fewer than 15 mature individuals. Dispersal within the ranges of 11 subpopulations is severely limited. Surveys have shown consistently high adult mortality and low calf recruitment, accelerating decline rates. Threats are continuing and escalating.”<sup>43</sup>

SARA provides a mechanism for a COSEWIC reassessment from threatened to endangered to be reflected in an amendment of the species’ classification on the SARA

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<sup>41</sup> COSEWIC (2011).

<sup>42</sup> COSEWIC (2011), p.51

<sup>43</sup> COSEWIC (2014), pdf p.3, underline added

List. However, the federal Minister of the Environment has said<sup>44</sup> that consultations with the B.C. government, Aboriginal peoples, stakeholders, and the public would be undertaken before the Governor in Council makes a decision on amending the SARA List to reflect the endangered status of the Southern Group and the Central Group. There is no indication on the SARA Registry that such consultations have begun.

### **3.7 2014 Federal Recovery Strategy**

On June 3, 2014, the federal Minister of Environment and the Minister responsible for Parks Canada posted on the SARA registry a final “Recovery Strategy” under SARA for the Woodland Caribou, Southern Mountain population, which is referred to in the document as “southern mountain caribou.” The 2014 Recovery Strategy divides the southern mountain caribou into a Northern Group, a Central Group and a Southern Group. These are sub-classified into Local Population Units and Subpopulations. The Revelstoke Shuswap LPU is comprised of the Columbia North subpopulation, the Columbia South subpopulation and the Frisby-Boulder-Queest subpopulation.<sup>45</sup>

The 2014 Recovery Strategy is highly significant in the following respects:

- (a) It provides the Ministers’ determination under section 40 of SARA that recovery of southern mountain caribou is considered to be both technically and biologically feasible across the species’ distribution in Canada.<sup>46</sup> Legally, this triggers the requirement in s.41 of SARA that the recovery strategy must address survival threats, identify critical habitat, state population and distribution objectives for the recovery and survival of the species, and state when one or more action plans

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<sup>44</sup> Minister’s Response Statement (2015).

<sup>45</sup> The 2014 Recovery Strategy recognizes the Columbia North herd, Columbia South herd and the Frisby-Boulder-Queest herd as comprising the Revelstoke Shuswap LPU.

<sup>46</sup> Recovery Strategy (2014), pdf pp.6, 8.

will be completed.

- (b) The Recovery Strategy explicitly delineated critical habitat (as required by SARA) in a series of 24 maps: the one for the Revelstoke-Shuswap LPU is on page 88, reproduced here as Appendix B. These were in two categories: “critical habitat high/low elevation ranges” and “critical habitat matrix ranges”. Unfortunately, as noted above, the federal line drawing followed the provincial UWR caribou protection zones and did not include large areas of occupied habitat that were used at least seasonally, based on radio and satellite telemetry. Some of the areas omitted are shown on our maps in Appendices O–Q. This is further discussed below.
- (c) The Recovery Strategy specifically determines that matrix range is critical habitat for the southern mountain caribou. Matrix range is outside the designated seasonal ranges. Type 2 matrix range consists of areas surrounding annual ranges where predator/prey dynamics influence caribou predation rates within the subpopulation's annual range.<sup>47</sup> This is important because B.C.’s legislative framework and MCRIP policy provides mandatory protection only within defined subareas within what B.C. refers to as “core habitat,” which does not generally include matrix range or important winter habitat.
- (d) The Recovery Strategy sets population and distribution objectives at the LPU level. It establishes a recovery goal to achieve self-sustaining populations in all LPUs within their current distribution.<sup>48</sup> The Strategy provides maps for each of the LPUs showing “Critical Habitat (Matrix Range)” as well as “Critical Habitat

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<sup>47</sup> Recovery Strategy (2014), pdf p.6. Type 1 matrix range consists of areas within an LPU's annual range that have not been delineated as summer or winter range, and may include seasonal migration areas and areas of lower use compared to delineated seasonal ranges.

<sup>48</sup> Recovery Strategy (2014), pdf p.38, underline added. And see: Section 5.2 Population and Distribution Objectives, pdf pp.39-40.

(High/Low Elevation Range).” The map on page 88 of the 2014 Recovery Strategy shows the Critical Habitat of the Revelstoke Shuswap LPU (Appendix B).

- (e) The map, Appendix B, clearly identifies areas mostly north of Hwy#1 on both sides of the Columbia River and its drainages, north to the Kinbasket and its drainages, west over to Malakwa and its environs and east to Glacier National Park.
- (f) The Recovery Strategy determines that “the primary threat to most LPUs of southern mountain caribou is unnaturally high predation rates as a result of...habitat alterations [that] support conditions that favour higher alternate prey densities (e.g., moose, deer, elk), resulting in increased predator populations (e.g., wolf, bear, cougar) that in turn increase the risk of predation to southern mountain caribou.”<sup>49</sup>
- (g) Further, the 2014 Recovery Strategy provides an objective measure of “low predation risk” in terms of wolf density. It states that “Type 2 matrix range critical habitat provides for an overall ecological condition that will allow for low predation risk, defined as wolf population densities less than 3 wolves/1000 km<sup>2</sup>.”<sup>50</sup>
- (h) Finally, the 2014 Recovery Strategy confirms that, as required by SARA, the Minister of the Environment and the Minister Responsible for Parks Canada “will complete one or more action plans under this recovery strategy, which will be included on the Species at Risk Public Registry by December 31, 2017.”<sup>51</sup> This heightens the urgency of preventing clearcut logging within critical habitat and

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<sup>49</sup> Recovery Strategy (2014), pdf p.8, Latin names omitted.

<sup>50</sup> Recovery Strategy (2014), pdf p.7, underline added.

<sup>51</sup> Recovery Strategy (2014), pdf p.7, underline added.

critical matrix habitat in the Columbia River watershed in the coming months especially since the action plans are still not completed under SARA and the deadline of December 31, 2017 has now passed.

Central to this application for a SARA s 80 order is that logging is occurring in federally designated habitat of an endangered species. For the most part, this refers to logging in critical habit – matrix, rather than critical habitat low- and high-elevation range. The crux of this issue is that the federal designation of critical habitat low- and high-elevation range followed the provinces UWR linework, erroneously omitting substantial areas of occupied, regularly used low elevation winter habitat. The 2014 Recovery Strategy admitted the preliminary nature of its mapped critical habitat:

p. 46 “[maps in Recovery Strategy] show a partial identification of critical habitat for all LPUs. The critical habitat mapped in the appendix is based on the best available information and does not currently include all critical habitat that exists for each LPU. ... More detailed maps of critical habitat will be prepared for each LPU as the information becomes available, and will be included in a revised recovery strategy or in one or more action plans ...”

p. 47 “There is no applicability of the 65% undisturbed threshold for the Southern Group, where the high and low elevation seasonal ranges are identified essentially as 100% of the remaining amount, and with minimal disturbance.”

“... low elevation spring and/or early winter range for the Southern Group, critical habitat includes that which is currently undisturbed as well as adjacent habitat that over time would become undisturbed through restoration.”

In the 2014 Recovery Strategy, Environment Canada, recognizing the urgency, committed to more precisely delineating critical habitat by the end of 2014, and of producing a revised strategy and one or more action plans by the end of 2017. Since these were not done, the dereliction supports our contention that the dire situation confronting Southern Mountain Caribou, with ongoing logging in their fall habitat and snowmobiling throughout their mid-winter habitat constitutes an emergency within the meaning of SARA.

The need for emergency action becomes more poignant as news media have been carrying news this week (e.g., New York Times)<sup>52</sup> that the Southern Selkirk herd is all but extinct, with only three females and no males remaining. This adds one more herd effectively extirpated to others around us: the Duncan herd to the south east, the Monashee herd across the valley and the Central Rockies herd just east of here.

### **3.8 SARA: critical habitat protection on non-federal lands**

In 2016, the federal Minister of Environment and Climate Change issued a proposed Policy on Critical Habitat Protection on Non-federal Lands under SARA.<sup>53</sup> The context is that:

- SARA s.61(2) provides that the s.61(1) prohibition against destroying critical habitat applies on non-federal lands (including matrix range critical habitat) only where ordered by the Governor in Council under s.61(2) on the recommendation of the Minister under s.61(3) after consultation with the appropriate province as required by s.61(4).
- SARA s. 61(4) requires that, if the Minister forms the opinion that any portion of critical habitat on non-federal lands is not effectively protected by the laws of the province, and there are no effective federal measures or laws to protect that portion of critical habitat, then the Minister must recommend that the Governor in Council make an order that extends the prohibition against the destruction of critical habitat to that portion.

The proposed policy sets out the factors guiding the Minister's<sup>54</sup> assessment of whether

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<sup>52</sup> <https://www.nytimes.com/2018/04/14/science/gray-ghost-caribou-extinct.html>.

<sup>53</sup> ECCC (2016).

<sup>54</sup> The federal Minister of the Environment is the competent Minister under SARA to assess the

existing provincial laws and federal provisions and measures effectively protect critical habitat on non-federal lands, and the actions to be taken following the completion of that assessment. Key provisions include the following:

- (a) “Effective protection” is defined by SARA and not by provincial standards. Critical habitat will be considered to be effectively protected for the purposes of s.61(4) where the existing provincial laws or federal measures and statutory provisions are, based on the available evidence, having the same “protection outcome” as would be the case if SARA s.61(1) prohibitions were in place. Notably, the “protection outcome” is that critical habitat is not being, and will not be, destroyed, except in ways that SARA’s discretionary measures would allow.<sup>55</sup>
- (b) All “parts” and “portions” of critical habitat for a species will be considered in determining whether existing protection is effective.<sup>56</sup> The parts of critical habitat are the biophysical attributes. “A portion of critical habitat is the geographic area within which a common set of land ownership, land tenure or management type, and protection mechanisms apply.”<sup>57</sup>
- (c) “Destruction [of critical habitat] may result from a single or multiple activities at one point in time or from the cumulative effects of one or more activities over time.”<sup>58</sup> This would include, in the present case, both the history of logging and road building in the subject critical habitat and matrix range critical habitat and the impending new

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protection of critical habitat on non-federal lands for terrestrial species at risk, such as the southern mountain caribou.

<sup>55</sup> ECCC (2016), pdf pp.4, 11.

<sup>56</sup> ECCC (2016), pdf p.5.

<sup>57</sup> *Ibid.*

<sup>58</sup> ECCC (2016), pdf p.4.

timber harvesting in the area.

### **3.9 First mountain caribou protection study under SARA**

In 2016, the federal Minister of Environment and Climate Change and the B.C. Minister of Environment initiated a joint study of “legislative tools in place to protect the southern mountain caribou and their habitat with the ultimate goal of determining what additional steps may need to be taken by federal or provincial governments to protect and recover southern mountain caribou.” Notably, the announced joint study was not limited to the Central Group but was focused on “southern mountain caribou,” i.e., the Northern, Central and Southern Groups as defined in the 2014 Recovery Study.

In February 2017, Canada and B.C. released a “Canada-British Columbia Southern Mountain Caribou (Central Group) Protection Study.” The focus is on the Central Group, though the Southern Group and topics relevant to the Southern Group are also discussed. Highlights include the following:

- (a) ECCC will use the Protection Study to inform federal decisions under SARA s.61 regarding whether the caribou and their critical habitat on non-federal lands are effectively protected.
- (b) The Study notes that “SARA looks first to provinces to protect species at risk under their jurisdiction where they are found on provincial or private land.”<sup>59</sup> However, the Study confirms that:

“If the Minister of ECC forms the opinion, after consultation with the provincial Minister, that critical habitat is not effectively protected under provincial law and there is no protection under SARA (e.g. through an agreement) or under other federal law, the Minister must make a recommendation to the Governor in Council (federal Cabinet) for an order which would prohibit destruction of critical habitat on the unprotected

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<sup>59</sup> Protection Study (2017), p.4.

portions. If an order were in place, prohibited activities may be exempted or permitted under the Act.”<sup>60</sup>

- (c) The federal approach to southern mountain caribou recovery is reflected in the 2014 Recovery Strategy.<sup>61</sup> This is the standard against which the effectiveness of the *status quo* protection is measured.
- (d) B.C.’s 2007 MCRIP provides management guidance for subpopulations referred to in the federal recovery strategy as the Southern Group. It is not legally binding.
- (e) The disturbance threshold for Type 2 Matrix Critical Habitat applicable to the Southern Group (as well as the Central and Northern Groups) is a wolf density of less than 3 wolves per 1000 km<sup>2</sup>.<sup>62</sup>
- (f) For the Central Group, about 41% of the area outside high elevation caribou habitat, which would be considered critical habitat by ECCC, is not provided spatially-explicit protection by any of the B.C. legislative instruments examined. Some of this area would not even be considered caribou habitat by B.C.<sup>63</sup> It is submitted that this large gap between the provincial concept of core habitat and the federal concept of critical habitat is likely to be similar regarding the Southern Group.
- (g) All lands that are contained within the Timber Harvesting Land Base (THLB) are considered by B.C. to be feasible for harvest and contribute to the Allowable Annual Cut. Those areas, unless otherwise constrained, are assumed to be harvested at

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<sup>60</sup> Protection Study (2017), p.5.

<sup>61</sup> Protection Study (2017), p.6.

<sup>62</sup> Protection Study (2017), p.23.

Also in 2014 Federal Strategy for Recovery of Mountain Caribou.

<sup>63</sup> Protection Study (2017), p.71. In general, B.C. “core habitat” is equivalent to Canadian Wildlife Service “high elevation critical habitat.” (L. Harding – pers. comm.)

some point in a normal forest rotation (between 80 and 100 years).<sup>64</sup> This applies equally to the lands within the THLB that are critical habitat or matrix range critical habitat for the Southern Group.

#### **4.0 Southern Mountain Caribou: Declining Numbers**

This section addresses the estimates of population size and trends, with particular emphasis on the Revelstoke Shuswap LPU. Section 4.1 presents results from the B.C. Ministry of Environment aerial surveys of caribou.

##### **4.1 Revelstoke Shuswap Caribou Population Trends**

The B.C. Ministry of Forests, Lands and Natural Resource operations, in conjunction with Parks Canada has conducted aerial surveys of Mountain Caribou in the Revelstoke Shuswap Land Use Planning Unit (LPU) in the spring, every 1-3 years since 1992. There are three subpopulations in the Revelstoke Shuswap Planning Unit ('Frisby-Boulder-Queest', 'Columbia South' and 'Columbia North').<sup>65</sup> Monitoring is a commitment in the 2014 Southern Mountain Caribou Recovery Strategy (Environment Canada). The last full population survey for Columbia North and Columbia South was 2017. The Frisby-Boulder-Queest subpopulation was last surveyed in 2013, and is overdue for monitoring.

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<sup>64</sup> Protection Study (2017), p.90.

<sup>65</sup> Subpopulation distributions are based on Wittmer et al. 2005. These subpopulations boundaries were based on 95% kernel home range data from Very High Frequency (VHF) and Global Positioning System (GPS) telemetry data collected on a sample of collared caribou between 1992-2004.

Historically the three subpopulations in the Revelstoke LPU were connected to each other and to adjacent subpopulations (Serrouya et al. 2012). They were Groundhog, Central Rockies, Wells Gray, Duncan, and Central Selkirk subpopulations, and caribou in the Central Group in Jasper National Park and environs. However, as populations have continued to decline, caribou range has contracted, and populations have fragmented. There is little evidence of recent dispersal between subpopulations (van Oort et al. 2011).

Southern Mountain Caribou across the province have experienced population decline and contraction over the long term, as well as a notable range-wide decline in the late 1990's/early 2000's. The Columbia South subpopulation declined from an estimated 117 animals in 1994 to only 4 animals in 2016 (Serrouya et al. 2016). This population has consistently declined in all but one year surveyed since 1994. The Frisby-Boulder-Queest subpopulation was estimated at 36 in 1994 and had declined to 11 by 2013 (Legebokow and Serrouya 2013). The Columbia North subpopulation was estimated at 209 in 1994 and 147 in 2017 (C. Legebokow pers. com.). The Columbia North subpopulation has apparently stabilized (more years are needed to establish a trend), but has not yet grown in spite of extensive and ongoing prey management, predator management and maternal penning.

Overall caribou in the Revelstoke-Shuswap LPU (Columbia South, Columbia North and Frisby-Boulder-Queest subpopulations) have declined by more than 50% from 362 in the mid 1990-s to 162 in mid 2010's. In spite of these declines, forest harvesting continues to occur in the critical habitat of mountain caribou in the Revelstoke LPU.

In an affidavit of Blair Hammond, ECCC, Canadian Wildlife Service, 30 January, 2018, the most current estimate of Southern Mountain Caribou population is 3800. This compares to an estimate of 4500 in the May 2017 Canada-BC Southern Mountain Caribou (Central Group) Protection Study (See Appendix R). This most current estimate

includes the Southern, Central, and Northern Groups of Southern Mountain Caribou, and the Central Group includes Alberta. This should not be confused by comparing it with the population discussed in the 2007 Mountain Caribou Recovery Plan which addressed caribou population only in the Southern Group of the Southern Mountain Caribou.

#### **4.2 Central Group Protection Study**

The 2017 Central Group Protection Study provides population size and trend information for southern mountain caribou subpopulations in B.C. and Alberta. This is grouped by Northern Group, Central Group, and Southern Group, Local Population Unit, and Subpopulation. Table 2, below, provides a reproduction of excerpts from a table from the report<sup>66</sup> showing population estimates for the Wells Gray-Thompson LPU, the Wells Gray (South) subpopulation, the Groundhog subpopulation, and the Southern Group Total. This Table is included as the Revelstoke Shuswap LPU is part of the Southern Group.

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<sup>66</sup> 2017 Protection Study Central Group, pdf pp.10-12.

**Table 2. Population size and trend information for southern mountain caribou subpopulations in Canada (BC and Alberta (AB)). Reproduced from Central Group Protection Study (2017)**

# <sup>ii</sup>	Prov	Local Population Unit (LPU)	Subpopulation	Population Estimate <sup>iii</sup>		Population Trend <sup>iv</sup>	
				Estimate	Year	Current	Long-term
18	BC	Wells Gray-Thompson	Wells Gray (South)	121 <sup>xviii</sup>	2015	Decreasing	Decreasing
			Groundhog	19	2016	Increasing <sup>xviii</sup>	Decreasing
	BC	Southern Group Total		1,205		Decreasing	Decreasing
"Population sizes" are estimates of total animals in the population							

To put the Revelstoke Shuswap LPU in the context of the larger grouping of which it is a component, the Southern Group is rated : current trend – decreasing, and long-term trend – decreasing.

#### 4.3 Matrix range is critical habitat for Mountain Caribou

An aspect of Southern Mountain Caribou biology that makes matrix range especially important is their unique double migration that is well described in the 2014 Recovery Plan and 2014 COSEWIC assessment: As snow accumulates in autumn in the high country, caribou move down the slope, arriving at valley bottoms, where they feed on vascular plants and lichen litterfall, around November. The 2014 Assessment recognizes this on page 43 and elsewhere:

"Low elevation cedar-hemlock forests are also used by some Southern Group subpopulations in early winter and spring"

The snow in Southern Mountain Caribou country is deep and dense. As it settles and compacts, the caribou can walk on top of it and begin moving back up-slope, arriving back in high-elevation spruce-fir forests in midwinter where the deep snow lets them graze for arboreal lichens as high as 6–10 meters up the trees. In spring, when melting snow in the valley bottoms exposes vascular plants on south-facing slopes and avalanche paths, they move back down. They return to their subalpine and alpine habitats and calving grounds in late spring. The seasonal distribution of caribou radio-collar locations in Appendix R shows this. Most of their low elevation, cedar-hemlock habitat was erroneously classified as “matrix” in the 2014 Recovery Strategy that is further discussed in section 5 below.

As discussed above, the 2014 Recovery Strategy under SARA expressly includes matrix range within the critical habitat of the southern mountain caribou, whereas the B.C. mountain caribou implementation plan (MCRIP) limits spatially-explicit protection to “core habitat,” most of which does not include matrix habitat. This section addresses in more detail the role of predation and disruption of matrix range in the decline of the southern mountain caribou.

#### **4.4 Recovery Implementation Group (2005)**

The report of the Recovery Implementation Group (RIG) defines “matrix habitat” as follows:

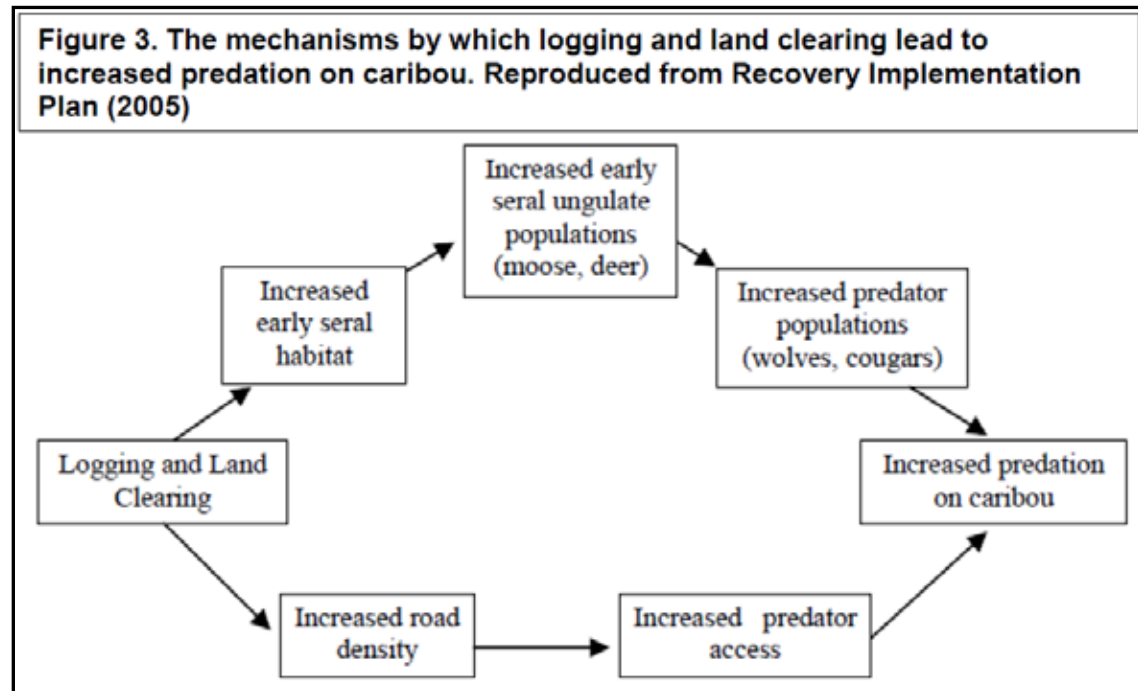
“Matrix habitat is defined as habitat adjacent to core caribou habitat. Matrix habitat is the source of predators that are impacting the caribou population. It may also contain migration routes used by the caribou.”<sup>67</sup>

The RIG provides a schematic illustrating the mechanisms by which logging and land clearing lead to increased predation on caribou, reproduced in Figure 3, below.<sup>68</sup>

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<sup>67</sup> RIG (2005), p.23, underline added.

<sup>68</sup> RIG (2005), p.29.



The RIG (2005) states:

“The primary cause of declining mountain caribou populations in B.C. appears to be predation by wolves, bears and cougars (Bergerud 1974, Seip 1992, Kinley and Apps 2001, Wittmer 2004, Wittmer et al. 2005). The intensity of predation is related to the abundance of other ungulate prey species such as moose, elk or deer within the range of mountain caribou. It appears that the presence of those other ungulate species attracts and supports increased predator numbers that results in increased predation on caribou (Seip 1992).

With reference to forest harvesting in particular, RIG (2005) states:

“Human settlement and forest harvesting have increased the amount of early seral habitat, roads and linear corridors within and adjacent to mountain caribou habitat. The early seral habitat can increase the abundance and distribution of moose, elk and deer within caribou habitat. Roads and linear corridors can increase the movement of other ungulates and predators into caribou habitat (James and Stuart-Smith 2000).

The RIG (2005) observes that:

“Matrix habitat is the habitat adjacent to core caribou habitat. Much of the low elevation habitat adjacent to mountain caribou ranges may not be

regularly used by caribou, but the habitat conditions within those areas may have significant impacts on the predator-prey relationships of the caribou. Matrix habitat also serves as migration routes for caribou in areas where migration corridors are unknown or poorly defined. Enhancement of early seral ungulates in matrix habitat is likely to result in increased predators and predation risk to the caribou.<sup>69</sup>

The RIG emphasizes the importance of reducing disturbance in matrix habitat:

“Existing caribou management strategies usually did not address this concern, although some did recommend that moose enhancement should not be done in areas that were close to caribou habitat. The RIG believes that reducing and then maintaining early seral ungulates and predators at numbers that would occur within a natural forest age class distribution must be part of the recovery strategy.”<sup>70</sup> Something which is being done in the Revelstoke Shuswap LPU. (Serrouya et al 2017)

The RIG (2005) acknowledges the potential for disturbance of matrix habitat outside of “core habitat”. “Core habitat” itself is a misnomer, or is grossly mis-applied in the provincial mapping because it excluded many areas used regularly and presumably required by caribou, especially low elevation habitats. This was explained in a consultant report for The Caribou Project (SciWrite Environmental Sciences Ltd., 2009)<sup>71</sup>. The “core herd boundaries” were based on a paper by Wittmer et al. (2005)<sup>72</sup> using a “95% fixed kernel” method that eliminated about 5% of radio-collar locations— all of them peripheral to the “core” habitats and most of them in low elevation fall and spring habitats. This defect was carried through to the federal 2014 Recovery Strategy, which used the province’s UWR mapping to delineate “high elevation and low elevation

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<sup>69</sup> RIG (2005), p.21, underlines added.

<sup>70</sup> *Ibid.*

<sup>71</sup> SciWrite Environmental Sciences Ltd. 2009. Southern Mountain Caribou: review of recovery plan progress. Coquitlam, B.C., Report for ForestEthics and the Mountain Caribou Project. 41 pp.

<sup>72</sup> Wittmer, H. U., B. N. McLellan, D. R. Seip, J. A. Young, T. A. Kinley, G. S. Watts, and D. Hamilton. 2005. Population dynamics of the endangered mountain ecotype of woodland caribou (*Rangifer tarandus caribou*) in British Columbia, Canada. Canadian Journal of Zoology 83:407-418

critical habitat”, thus relegating important, regularly used habitats to matrix habitat. This had the effect of allocating more low-elevation forest to timber harvest and less to caribou.

While it acknowledged prey control as an option, the RIG’s primary recommendation was to limit the amount of habitat for early seral ungulates at levels that would occur under natural disturbance conditions:

“The management strategy that is most consistent with an ecosystem management approach, and establishing a self-sustaining caribou population, is to limit the amount of habitat for early seral ungulates at levels that would occur under natural disturbance conditions. This is the primary approach recommended by the RIG.”<sup>73</sup>

#### **4.5 RIG recommends protection of matrix habitat**

The RIG recommended that “Critical Core Habitat should be reserved from forest harvesting and road-building”<sup>74</sup> Notably, the RIG also recommended that matrix habitat be mapped as critical habitat and protected. This is significant for present purposes because the recommendation has not been implemented effectively in the subject area (Revelstoke Shuswap LPU) or elsewhere. The RIG states:

“A buffer area of matrix forest surrounding the caribou habitat zones should be mapped as critical habitat that will be managed to maintain natural levels of early seral ungulates and predators. That area should extend far enough to incorporate areas that are likely to significantly impact the predator-prey relationship of caribou.”<sup>75</sup>

#### **4.6 Type 2 matrix range in the 2014 Recovery Strategy**

The federal government’s 2014 Recovery Strategy provides an authoritative description of Type 2 matrix range and its importance to southern mountain caribou. It states:

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<sup>73</sup> RIG (2005), p.29, underline added.

<sup>74</sup> *Ibid.*

<sup>75</sup> RIG (2005), p.28, underline added.

“Although caribou primarily use high elevation areas and/or habitat types where they are spatially separated from other prey and predators (Seip 1992a, Stotyn 2008, Hebblewhite et al. 2010a, Steenweg 2011, Robinson et al. 2012, Williamson-Ehlers 2012), the habitat/prey/predator dynamics at lower elevations, and in areas adjacent to annual ranges, contribute to prey/predator dynamics and mortality on caribou within their annual ranges.”<sup>76</sup>

The report explains:

“This is because predators move beyond valley bottoms and also use higher elevations, especially during summer and fall (Whittington et al. 2011). At the broad scale, wolf predation on caribou in the Southern Group occurs primarily at low elevations (Apps et al. 2013).”<sup>77</sup>

Type 2 matrix range also provides connectivity within and between subpopulations. The report states:

“In addition, Type 2 matrix range provides connectivity between subpopulations within and among LPUs and thereby allows for immigration and emigration, which helps to maintain genetic diversity and the species’ consequent resilience to environmental stressors (e.g., disease, severe weather). Weckworth et al. (2012) have demonstrated that isolation of subpopulations as a result of disturbance to the landscape (i.e., any form of human-caused or natural habitat alteration) can result in a significant reduction in genetic diversity. In addition, connectivity among annual ranges maintains the possibility of ‘rescue effects’, thereby facilitating recovery.”<sup>78</sup>

In summary, the Recovery Strategy states:

“Type 2 matrix range influences predator/prey dynamics within southern mountain caribou annual ranges and provides connectivity between subpopulations within and among LPUs. Recovery of southern mountain caribou requires that Type 2 matrix range be recognized and managed to maintain a low predation risk.”<sup>79</sup>

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<sup>76</sup> Recovery Strategy (2014), pdf p.24.

<sup>77</sup> *Ibid.*

<sup>78</sup> *Ibid.*

<sup>79</sup> *Ibid.*

## **5.0 Current Situation in the Revelstoke Shuswap Local Planning Unit**

The current situation in the Revelstoke Shuswap LPU is that the percent of critical habitat which has been logged since 1940 is 6% high or low elevation range, and 33% matrix range. See maps which are current to December, 2017 in Appendices C, D and E. The total per cent of non-alpine critical habitat and matrix range which has been logged since 1940 is approximately the same. It is important to remember that a tree growing since 1940 would only be 78 years old and a tree growing since 1900 would only be 117 years old. Neither of these ages is considered mature forest for the purposes of habitat for mountain caribou. The trees are just approaching (or have already reached) the time to be logged again, never reaching ideal ages (mature and old growth) for fulfilling the habitat needs of mountain caribou.

The percent of total critical habitat with significant road development (where “significant” means a road density of greater than 0.6566 km/sq km) is high or low elevation range 29%, and matrix range 51%. See map current to December, 2017 in Appendices F and G. Appendix G shows roads rails and transmission lines. (Maps in Appendices C to G inclusive are by GIS services, Gregory Kehm Associates, Vancouver, BC.)

### **5.1 Imminent Threats to Survival and Recovery**

This section addresses planned timber harvesting and related road building in the Revelstoke Shuswap LPU within critical habitat and matrix range critical habitat and therefore the imminent threats to the recovery of the Columbia North herd, and the imminent threats to both survival and recovery of the Columbia South and the Frisby-Boulder-Queest herds. It should be noted that all Forest Stewardship Plans (FSPs) of the licensees in the Revelstoke Shuswap LPU include reference to the Biodiversity Amendment 2011 of the RHLPO to document authorization to log Old Growth Management Areas (OGMAs). It should also be noted that while OGMAs have been spatialised in the Revelstoke Shuswap Planning Unit 3 A, or the LPU, OGMAs are not

legalised and so can be moved or logged. They have no legal protection in British Columbia.

See map Appendix J (GIS services, Gregory Kehm Associates) for an overview of proposed unharvested cut blocks in caribou critical habitat, by licensee, in the Revelstoke Shuswap LPU. This map is digitised from maps of the licensee's Forest Stewardship Plans. It should be noted that the Louisiana Pacific Malakwa TFL is missing from this overview map. Also this map does not include British Columbia Timber Sales (BCTS).

See a spreadsheet including a pivot table, Appendix K, (GIS services, Gregory Kehm) summarising the results of digitising the Forest Development Units for licensees in caribou critical habitat and Old Growth Management Areas in the Revelstoke Shuswap LPU. The projected logging of critical caribou habitat is 1,234 ha, plus 904 ha in matrix critical habitat. In addition, there are plans to log 387 ha of Old Growth Management Areas. These projections are from approximately 2017 to 2022, with one licensee's plans ranging from 2015 to 2020 and another's virtually approved to commence in May, 2018 to 2022. It should be noted again that these numbers do not include the Louisiana Pacific Malakwa TFL, nor do they include BCTS.

### **Stella Jones FSPs**

Two maps in Appendices L and M (GIS services, Gregory Kehm) show the proposed harvest blocks in the Stella Jones' FDP outlined in red with 1) caribou critical habitat variants and 2) Old Growth Management Area (non-legal). Both maps include harvest cut blocks from 2017 in orange and the georeferenced map from Stella Jones' FSP. Two of the three proposed blocks are within caribou critical habitat and the third proposes harvesting in a non-legal Old Growth Management Area.

Stella Jones' FSP, July 5, 2017 (GIS services, Gregory Kehm) including FDPs for

Akolkolex, Warsaw, and Tangiers totals approximately 314 ha (Akolkolex should be subtracted as it is not in the Revelstoke Shuswap LPU). Tangiers is in the critical habitat of the Columbia South herd and would contribute to what the Valhalla Wilderness Society has so well documented as “islands of extinction” by retaining mostly higher elevation forest rather than low elevation forest. This certainly happens around Revelstoke and Glacier National Parks. The remnant Columbia South herd is located mainly in Revelstoke National Park, but does roam north and east of the Park. Tangiers Creek is just east of Revelstoke National Park between it and Glacier National Park. Carnes Creek, which is just north of Revelstoke National Park, is also in this FSP for Stella Jones and would comprise critical habitat for the Columbia South Herd and possibly the odd wandering member of the Columbia North herd.

In summary, maps used in this petition include:

Appendix B: Map of critical habitat 2014 federal Strategy for Recovery of Southern Mountain Caribou. p.88.

Appendix C: Map of critical caribou habitat & intact watersheds, made by GIS services, Gregory Kehm Associates, Vancouver, BC for North Columbia Environmental Society (NCES) and Yellowstone to Yukon Conservation Initiative (Y2Y), December 2017.

Appendix D: Map of cumulative forest harvest, made by GIS services, Gregory Kehm Associates, for NCES and Y2Y, December 2017.

Appendix E: Map of old forest in Revelstoke-Shuswap LPU, made by GIS services, Gregory Kehm Associates for NCES and Y2Y.

Appendix F: Map of road density in Revelstoke-Shuswap LPU, made by GIS services, Gregory Kehm Associates for NCES and Y2Y.

Appendix G: Map of roads, rails and transmission lines in Revelstoke-Shuswap LPU,

made by GIS services, Gregory Kehm Associates for NCES and Y2Y.

Appendix J: Map of unharvested proposed cutblocks by licensee in critical habitat in Revelstoke-Shuswap LPU, made by GIS services, Gregory Kehm for NCES and Y2Y, polygons digitized in ArcMap from digital (Adobe Acrobat) maps provided by Stella Jones for Warsaw FDP, Louisiana-Pacific (LP): 2017–2022 Forest Stewardship Plan Map for TFL 55, and Downie Street Sawmills Ltd. and Downie Timber 2018–2022 Forest Stewardship Plans.

Appendix K: Table of proposed logging in critical habitat and OGMA in Revelstoke Shuswap LPU April, 2018

Appendix L: Stella Jones FDP with caribou critical habitat (source for Appendix J)

Appendix M. Stella Jones FDP with with OGMA (source for Appendix J)

Appendix N: SARCO (Species at Risk Coordination Office, Integrated Land Management Bureau) Telemetry locations up to 2007, from 2007 Recovery Plan Revelstoke Shuswap Planning Unit 3 A; the map also illustrates two possible scenarios for old-growth forest retention for caribou recovery planning (see legend for layer sources).

Appendices O, P and Q: Three maps made by SciWrite Environmental Sciences Ltd. with smaller scales combining layers of proposed cutblocks (Appendix J) and cumulative forest harvest (Appendix D), overlain on caribou “core herd boundaries”, based on Wittmer et al. 2005 (using fixed 95% kernel method), file GCBP\_CARIB\_polygon (ArcMap shapefile), B.C. Geographic Warehouse (BCGW), last updated February 2018, made by Lee E. Harding, SciWrite Environmental Sciences Ltd. These maps also have a layer Protected Areas, B.C. Geographic Warehouse (BCGW), last updated 2014.

## **5.2 B.C. allows timber harvesting in critical habitat and matrix range critical habitat**

In November 2002, the British Columbia government passed the *Forest and Range Practices Act (FRPA)*,<sup>80</sup> intended to help meet its target set in 2001 to eliminate one-third of all then-existing regulations. The new act overturned the 1994 Forest Practices Code of British Columbia with its associated emphasis on biological diversity, under which old growth forest had been preserved for caribou and other non-timber values in most regional land-use plans and “higher order” plans.

In January 2004, the B.C. government completed the legal transition from the *Forest Practices Code (FPC)* to a professional reliance model under the *FRPA*. Under *FPC*, the Ministry of Forests (MoF) district manager had final authority to withhold cutting permits and road permits. However, under the *FRPA* that authority was removed and decision-making was transferred to the logging companies and their professionals.

Under the *FRPA*, all logging proposals that are consistent with the objectives stated in an MoF approved forest stewardship plan and signed off by the company’s professionals must be approved by MoF (if MoF decides that First Nations rights and title have been respected). Forest licensees and their professionals make the final decisions about how to balance resource values and minimize risks.<sup>81</sup> The MoF district manager has no authority to deny a cutting permit or road permit even if he or she is of the opinion that carrying out the actions authorized by the permit would destroy critical habitat of an endangered species.

The B.C. Forest Practices Board observes in a 2015 report that:

“The only planning document that requires approval by government officials is the forest stewardship plan. Yet these plans only set the legal

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<sup>80</sup> SBC 2002, c.69.

<sup>81</sup> FPB/SR/52, pdf p.3.

parameters for practices broadly over vast areas. They do not contain specific information about what licensees are planning to do.”<sup>82</sup>

The Board continues:

“Within the current legislative framework, normally the first opportunity for government officials to see what and where logging and road-building are proposed is when licensees apply for a cutting permit or road permit. However, government officials have very limited authority to intervene at this stage to protect the public interest.”<sup>83</sup>

The Forest Practices Board confirms that MoF district managers lack authority to review and approve cutting permits and road permits and that this can in some cases put local environmental values at risk. The Board recommended that district managers be given conditional discretion over the issuance of cutting permits and road permits in order to strengthen their role in safeguarding, among other things, conservation of species at risk.<sup>84</sup> However, this recommendation has not been implemented.

The Forest Practices Board also expressed similar concerns regarding the B.C. Timber Sales (BCTS) Program, which is allocated 19% of the provincial allowable annual cut. As noted above, BCTS has authorized timber harvesting in cutblocks within critical habitat. The Board notes that in the BCTS program “harvesting is done under timber sale licences issued by timber sales managers [and] BCTS and its licensees do not need to obtain cutting permits in order to harvest timber.”<sup>85</sup>

In a separate report in 2015, the Forest Practices Board addressed whether Forest Stewardship Plans under the *FRPA* are meeting expectations.<sup>86</sup> The Board states:

“The FSP is the only operational plan that must be made available for

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<sup>82</sup> *Ibid.*

<sup>83</sup> *Ibid.*

<sup>84</sup> *Ibid.*

<sup>85</sup> FPB/SR/52, pdf p.8.

<sup>86</sup> FPB/SIR/44.

public review and comment, and is the only operational plan that requires government approval. In the FSP, license holders propose how they will meet government's objectives. The FSP is meant to provide government with a set of measurable or verifiable results or strategies against which government enforces compliance and to assure the public that all resource values are being conserved and protected."<sup>87</sup>

The Board concludes:

"The Board finds, based on our sample, that most FSPs contain results or strategies that do not demonstrate consistency with objectives, and, that all have significant problems with measurability or verifiability. In addition, many FSPs cover vast and overlapping areas of the province making it very difficult for public understanding and review.

The existing culture associated with FSP preparation and approval is unacceptable. Licensees write FSPs in a manner that renders them of little value to the public. Yet, in many cases these plans are approved, and extended, by government decision makers, despite the fact that they do not meet the required approval tests."<sup>88</sup>

The B.C. Forest Planning and Practices Regulation, BC Reg. 14/2004, is clear that timber supply takes priority over habitat protection. Section 7(1) states:

"7(1) The objective set by government for wildlife is, without unduly reducing the supply of timber from British Columbia's forests, to conserve sufficient wildlife habitat in terms of amount of area, distribution of areas and attributes of those areas for (a) the survival of species at risk, (b) the survival of regionally important wildlife, and (c) the winter survival of specified ungulate species."<sup>89</sup>

## **6.0 Legal Framework**

### **6.1 UN Convention on Biological Diversity**

Canada signed the *United Nations Convention on Biological Diversity* on June 11, 1992

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<sup>87</sup> FPB/SIP/44, pdf p.3.

<sup>88</sup> FPB/SIP/44, pdf p.3, underline added.

<sup>89</sup> [http://www.bclaws.ca/civix/document/id/complete/statreg/14\\_2004#section7](http://www.bclaws.ca/civix/document/id/complete/statreg/14_2004#section7).

and ratified it on December 4, 1992. The Convention came into force on December 29, 1993, and now has 196 parties.

Canada is required by Article 6 of the Convention to take measures for conservation and sustainable use as follows:

“Article 6. General Measures for Conservation and Sustainable Use. Each Contracting Party shall, in accordance with its particular conditions and capabilities:

(a) Develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity or adapt for this purpose existing strategies, plans or programmes which shall reflect, inter alia, the measures set out in this Convention relevant to the Contracting Party concerned; and

(b) Integrate, as far as possible and as appropriate, the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies.”

In 1996, federal, provincial and territorial ministers responsible for wildlife entered a national *Accord for the Protection of Species at Risk*. The Accord is a commitment to a national approach for the protection of species at risk. The goal is to prevent species in Canada from becoming extinct as a consequence of human activity. Among the commitments in the Accord is a commitment to establish complementary legislation and programs that provide for effective protection of species at risk. Canada eventually enacted the *Species at Risk Act* in 2002. B.C. has not enacted species at risk legislation.<sup>90</sup> Whether B.C. has otherwise provided effective protection of species at risk is a topic best addressed on a species-specific basis. This is the role of an “effective protection study” under SARA s.61, discussed below.

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<sup>90</sup> The B.C. *Wildlife Act*, RSBC 1996, c.488, s.6, does authorize the Lieutenant Governor in Council to designate a species as endangered or threatened. However, this provision has rarely been used and the Act provides no comprehensive mechanisms for assessing and listing species at risk or for identifying and protecting their habitat.

## **6.2 Federal *Species at Risk Act***

The federal *Species at Risk Act*, S.C. 2002, c.29 (SARA), received assent on December 12, 2002. The listing and emergency order sections came into force on June 5, 2003. The 'safety net' provision (section 61, discussed below) came into force on June 1, 2004.

Points acknowledged in the preamble of SARA include:

- Canada's natural heritage,
- the value of wildlife in all its forms,
- Canada's commitments under the UN Convention on the Conservation of Biological Diversity,
- the Government of Canada's commitment to conserving biological diversity,
- the precautionary principle that, if there are threats of serious or irreversible damage to a wildlife species, cost-effective measures to prevent the reduction or loss of the species should not be postponed for a lack of full scientific certainty,
- shared responsibility and cooperation among the governments of Canada for protection and recovery of species at risk,
- the roles of the Aboriginal peoples of Canada, and
- habitat of species at risk being key to their conservation.

The statutory purposes of SARA are set out in section 6:

"6. The purposes of this Act are to prevent wildlife species from being extirpated or becoming extinct, to provide for the recovery of wildlife species that are extirpated, endangered or threatened as a result of human activity and to manage species of special concern to prevent them from becoming endangered or threatened."

The purposes of SARA can be characterized as (a) survival, (b) recovery and (c)

prevention. Recovery can be a higher and more difficult standard to meet than survival.<sup>91</sup>

Generally, the cycle of steps for wildlife species at risk under SARA includes assessment, listing, recovery strategy, action plan, and permits, agreements and exceptions.

Section 5 specifies that SARA is binding on a province. This was affirmed by the Federal Court in *Centre Québécois du Droit v Canada*, 2015 FC 773, para. 7. For present purposes, however, the more important topic is the applicability of SARA and the various provisions of SARA to non-federal land.

### **6.3 Application of SARA to habitat of terrestrial wildlife species on non-federal land**

SARA is carefully crafted to be consistent with the constitutional division of powers between the provinces and the federal government while also exercising federal constitutional authority to protect the habitat of listed wildlife species where necessary.

Many of the provisions of SARA apply to both the traditional areas of federal proprietary and legislative authority – federal lands, migratory birds and aquatic species – and to terrestrial<sup>92</sup> species on non-federal land. In particular, the listing, response plan and action plan provisions of SARA apply to terrestrial wildlife species, such as caribou, on non-federal land.

However, some provisions of SARA, notably the general prohibition (s.58) against destruction of critical habitat, apply only to federal lands, migratory birds and aquatic

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<sup>91</sup> ECCC (2016), Policy on Survival and Recovery [Proposed], pdf pp.2-3.

<sup>92</sup> The term “terrestrial” is used here to mean wildlife species that are neither migratory birds nor aquatic species, following the use of the term in the 2016 Proposed Policy on Critical Habitat Protection on Non-federal Lands.

species and not to terrestrial species on non-federal land. Instead, SARA provides two mechanisms by which the destruction of critical habitat<sup>93</sup> of terrestrial species on non-federal land can be prohibited under SARA:

- a 'safety net' order under section 61, and
- an emergency order under section 80.

In both cases the order is made by the Governor in Council on the recommendation of the "competent minister."

#### **6.4 Safety net orders**

The mechanism for safety net orders is set out in s.61. Wojciechowski et al. (2011) state:

"The safety net provisions of SARA are designed to enhance the likelihood that species listed under SARA are afforded effective protection whether they occur on federal or non-federal lands."<sup>94</sup>

SARA s.61(2) provides that the s.61(1) prohibition against destroying critical habitat applies on non-federal lands (such as the subject critical habitat and matrix critical habitat) only where ordered by the Governor in Council under s.61(2) on the recommendation of the Minister under s.61(3) after consultation with the appropriate province as required by s.61(4).

SARA s.61(4) requires that, if, after consultation with the province, the Minister forms the opinion that any portion of critical habitat on non-federal lands is not effectively

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<sup>93</sup> The present application relates to protection of habitat, not individuals. The SARA s.32 prohibition against killing or harming individuals of a listed species does not generally apply to terrestrial wildlife species on non-federal land. However, s.34 provides a mechanism under which the prohibition can be made applicable to terrestrial wildlife species on non-federal land. The mechanism is similar to the safety net mechanism under s.61.

<sup>94</sup> Wojciechowski et al. (2011), p.213, underline added.

protected by the laws of the province, and there are no effective federal measures or laws to protect that portion of critical habitat, then the Minister must recommend that the Governor in Council make an order that extends the prohibition against the destruction of critical habitat to that portion.

As noted above, the 2014 Recovery Strategy for all three Groups (Northern, Central and Southern) of the “southern mountain caribou”<sup>95</sup> was posted on the SARA Registry on June 3, 2014. In 2016, pursuant to the consultation requirement in s.61(4), the federal Minister and her B.C. counterparts initiated a joint study of whether B.C. provides effective protection of the southern mountain caribou. This resulted in a February 2017 ‘effective protection report’ for the Central Group (but not for the Southern Group). An ‘effective protection report’ for the Southern Group is a crucial next step and should be expedited. Pending completion of that process, new timber harvesting and road building will add incremental damage to critical habitat and matrix range critical habitat unless it is prevented by an emergency order under SARA.

## **6.5 Emergency order to protect listed species on non-federal land**

An emergency order under s.80 is not limited to federal lands. This is exemplified by the 2013 “Emergency Order for the Protection of the Greater Sage-Grouse,”<sup>96</sup> which applies to provincial Crown land in Alberta and Saskatchewan (discussed further, below). The applicability of an emergency to non-federal lands was also affirmed by the Federal Court in *Centre Québécois du Droit*, para. 21, in the context of judicial review of a decision regarding an application for an emergency order under SARA s.80 concerning a listed species of terrestrial wildlife (Western Chorus Frog) located within Quebec.

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<sup>95</sup> I.e., Woodland Caribou, Southern Mountain population.

<sup>96</sup> SOR/2013/202.

## **6.6 Emergency order under s.80 and s.97(2)**

The mechanism for an emergency order is set out in subsections 80(1) to (5) and 97(2). The following paragraphs set out the structure of the emergency order provisions, with a focus on how they apply to the current application.

Subsection 80(1) sets out the authority of the Governor in Council to make an emergency order to provide for the protection of a listed wildlife species. It states:

“Emergency order

80 (1) The Governor in Council may, on the recommendation of the competent minister, make an emergency order to provide for the protection of a listed wildlife species.”

The legal authority to make an emergency order lies with the Governor in Council. A statutory prerequisite is a recommendation of the competent minister, i.e., the federal Minister of the Environment and Climate Change.

Subsection 80(2) addresses the role of the Minister in making a recommendation for an emergency order. It states:

“Obligation to make recommendation

80 (2) The competent minister must make the recommendation if he or she is of the opinion that the species faces imminent threats to its survival or recovery.” [underline added]

Technically, the Governor in Council is permitted by s.80(1) to make an emergency order on the recommendation of the Minister in situations other than those contemplated by s.80(2),<sup>97</sup> i.e., where the Minister makes a recommendation without necessarily forming an opinion that the species faces imminent threats to its survival or recovery. The legal effect of s.80(2) is that the Minister must make the recommendation if he or she is of the opinion that the species faces imminent threats to its survival or

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<sup>97</sup> *Adam*, para.39(ii).

recovery.

Subsection 80(3) states:

“80 (3) Before making a recommendation, the competent minister must consult every other competent minister.”

“Competent minister” is defined in s.2(1) as the Minister responsible for Parks Canada with respect to wildlife species on land administered by Parks Canada, the Minister of Fisheries regarding aquatic species other than ones for which the Minister responsible for Parks Canada is responsible, and the Minister of the Environment for all other species. The 2014 Recovery Strategy states that the Minister of the Environment and the Minister responsible for Parks Canada are the competent ministers under SARA for southern mountain caribou.<sup>98</sup> At the present time, the Honourable Catherine McKenna is both the Minister of the Environment (and the Minister responsible for Parks Canada).

On the topic of consultation, it is notable that s.80 does not require the Minister to consult with an affected Province before forming an opinion whether the species faces imminent threats to its survival or recovery. In contrast, the s.61 safety net mechanism does require the Minister to consult with the Province prior to making a recommendation to the Governor in Council.

In the Canada-B.C. Agreement on Species at Risk, Canada agrees to consult with provincial ministers prior to the Governor in Council making an emergency order (not prior to the Minister making a recommendation for an emergency order). However, that Agreement appears to have expired in 2015.

The contents of the emergency order requested in the application is governed by s.80(4), which states:

**“Contents**

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<sup>98</sup> Recovery Strategy (2014), pdf p.3.

(4) The emergency order may ... (c) with respect to any other species [not an aquatic species or a migratory bird species], ... (ii) on [non-federal] land

(A) identify habitat that is necessary for the survival or recovery of the species in the area to which the emergency order relates, and

(B) include provisions prohibiting activities that may adversely affect the species and that habitat.”

Component (A) allows the emergency order to identify the habitat to which the emergency order relates. Among other things, this implies that the area to which an emergency order applies is not required to be co-extensive with the habitat of the listed wildlife species of which the emergency order provides protection. For example, the requested emergency order can relate to provincial Crown land that is critical and matrix range critical habitat of the Revelstoke Shuswap LPU. It does not have to apply to other areas.

Component (B) expressly allows an emergency order to include provisions prohibiting certain activities (i.e., activities that may adversely affect the species and that habitat). This makes it clear that an emergency order is a regulatory prohibition, not a planning document.

In this respect, s.80(4)(B) is augmented by s.97(2) of SARA, which states:

“97 (2) A regulation or emergency order may prescribe which of its provisions may give rise to an offence.”

Thus, an emergency order may not only include provisions prohibiting certain types of activities, it may prescribe that violation of some or all of these provisions constitutes an “offence” under SARA.

Section 80(5) exempts an emergency order from the application of section 3 of the *Statutory Instruments Act*. This has the effect of expediting the in-force status of an emergency order.

Section 81 states:

“81.Despite subsection 80(2), the competent minister is not required to make a recommendation for an emergency order if he or she is of the opinion that equivalent measures have been taken under another Act of Parliament to protect the wildlife species.” [underline added]

Section 81 has no relevance to the present case. “Act of Parliament” here means a statute of the federal Parliament, and there are no measures under a federal statute that prohibit timber harvesting in critical habitat or matrix range critical habitat of the Columbia North, Columbia South, and the Frisby-Boulder-Queest herds in the Revelstoke Shuswap LPU.

Southern mountain caribou population and distribution objectives are at the Local Protection Unit level

The “Woodland Caribou, Southern Mountain Caribou population (*Rangifer tarandus caribou*)” is a listed wildlife species and, as such, the entire listed wildlife species could be the focus of an emergency order. However, it is submitted that the Revelstoke Shuswap LPU is also an appropriate unit for protection and determination of imminent threats to survival or recovery in an emergency order under s.80.

The 2014 Recovery Strategy defines the “population and distribution objectives” for the “recovery and survival” of the southern mountain caribou at the level of the Local Population Unit. It states: “The recovery goal for southern mountain caribou is to achieve self-sustaining populations in all LPUs within their current distribution.”<sup>99</sup>

This is significant because where, as here, the Minister has determined that the recovery of the listed wildlife species is technically and biologically feasible, s.41(1)(d)

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<sup>99</sup> Recovery Strategy (2014), pdf p.38, underline added. And see: Section 5.2 Population and Distribution Objectives, pdf pp.39-40.

requires the recovery strategy to include a “statement of the population and distribution objectives that will assist the recovery and survival of the species...” The “recovery and survival of the species” in s.41(1)(d) is the same concept as the “recovery and survival of the species” in s.80. Reading s.80 in the context of s.41(1)(d) and SARA as a whole, it is clear that protection of, and threats to, the “listed wildlife species” in s.80 is not confined to the entire “listed wildlife species.” Rather, certainly where population and distribution objectives have been finalized, as here, the recovery and survival of the species for the purposes of an emergency order can be defined in terms of those objectives. Here, an approved objective under SARA is to achieve self-sustaining populations of caribou in the Revelstoke Shuswap LPU within their current distribution. It follows that an emergency order can focus on the protection of, and threats to the survival or recovery of, the Revelstoke Shuswap LPU. Alternatively, if the entire “southern mountain caribou” unit is necessarily the only focus of an emergency order, then imminent threats to the survival or recovery of the Revelstoke Shuswap LPU, contrary to the approved population and distribution objective, can and do constitute imminent threats to the survival or recovery of the southern mountain caribou, and protection of the southern mountain caribou can and does require an emergency order defined in geographic scope to provincial Crown land within critical and matrix range critical habitat of the Revelstoke Shuswap LPU.

#### **6.7 The Minister’s opinion and recommendation under s.80(2)**

The following principles are applicable to the Minister’s decision whether to recommend an emergency order under s.80(2). Many of these points were addressed by Mr. Justice Crampton of the Federal Court in *Adam v. Canada (Environment)*, 2011 FC 962.

Section 80 of SARA must be given a liberal interpretation: *Centre Québécois du Droit v Canada*, para. 20. This includes recognition that, as Mr. Justice Russell states in *David Suzuki Foundation v. Canada (Fisheries and Oceans)*, 2010 FC 1233, para. 299:

“...critical habitat protection under SARA must be mandatory and not

discretionary. Parliament did not intend to allow ministers to ‘choose’ whether to protect critical habitat.”

The Minister’s decision under 80(2) requires an objective inquiry based on the best available scientific information. However, the Minister’s inquiry is not confined to considering the best available scientific information, for example the Minister may also consider legal advice with respect to the meaning of the language in s.80(2).<sup>100</sup>

The Minister must not take into account socio-economic factors. The 2017 Protection Study states regarding the Minister’s decision under s.61 that “The Minister cannot consider socio-economic factors such as impacts on tenure holders and community interests, nor the benefits of any non-habitat related actions, in forming her opinion on critical habitat protection.”<sup>101</sup> While the Study is not legally binding, presumably the same approach applies to the Minister’s decision under s.80(2).

The Minister must not take into account the possibility of future laws or mandatory requirements such as those that might arise under a s.61 safety net order. This follows from the reasoning of Mr. Justice Russell of the Federal Court in *David Suzuki Foundation*. He states in para. 306 that “Provisions that rely on the prospective exercise of legislative authority cannot and do not legally protect until that authority is exercised.” While that decision involved a protection statement under s.58 of SARA, the principle applies equally to a determination under s.80(2).

Inaction due to a lack of full scientific certainty is not permitted.<sup>102</sup>

Imminent threats need not be guaranteed to materialize.<sup>103</sup>

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<sup>100</sup> *Adam*, paras. 38(iv) and 39(iii).

<sup>101</sup> Effective Protection Study (2017), p.5.

<sup>102</sup> *Adam*, paras. 38(v) and 39, cited with approval, *Centre Québécois du Droit* at para.19.

<sup>103</sup> *Adam*, paras. 38(vi) and 39, cited with approval, *Centre Québécois du Droit* at para.19.

The impact of threats must be considered over a biologically appropriate timescale.<sup>104</sup>

This is particularly relevant in the present case where the adverse effect of timber harvesting on predation of caribou is an ecologically complex process that occurs over time.

The imminent threats referred to in s.80(2) can relate to only a portion of the range of the species. “[Nothing in...subsection 80(2)...limits the mandatory duty imposed on the Minister to situations in which a species faces imminent threats to its survival or recovery on a national basis.”<sup>105</sup>

Subsection 80(2) is triggered by threats to recovery or to survival, or both. The Federal Court in *Centre Québécois du Droit* emphasized the distinction:

[23] Lastly, it is important not to confuse the “survival” of a species with its “recovery”, as they are two separate concepts. The concept of “recovery” goes well beyond that of the “survival” of a species. Although there is no statutory definition of the term “recovery”, Environment Canada adopted a definition in the amended *Recovery Strategy for the Roseate Tern (Sterna dougallii)*, which indicates that “recovery is the process by which the decline of an endangered, threatened, or extirpated species is arrested or reversed and threats are removed or reduced to improve the likelihood of the species’ persistence in the wild”. Under that definition, the recovery of a species therefore includes a halt to or reversal of the decline of its population.”

In short, the Minister’s decision under s.80(2) must be exercised within the legal framework provided by the legislation. Further, the Minister’s s.80(2) decision is subject to judicial review. In *Alberta Wilderness Association v. Canada (Attorney General)*, 2013 FCA 190, the Federal Court of Appeal rejected the Minister’s position that a decision by the Minister not to recommend an emergency order under s.80 of SARA cannot be reviewed by the courts. The Court states:

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<sup>104</sup> *Adam*, paras. 38(vii) and 39, cited with approval, *Centre Québécois du Droit* at para.19.

<sup>105</sup> *Adam*, para. 39(vi).

“[48] If the position asserted by the [federal government] respondents is correct, it would have the effect of sheltering from review every refusal to make a recommendation for an emergency order. This cannot be so. The Minister’s discretion to decline to make a recommendation to Cabinet must be exercised within the legal framework provided by the legislation. The authority for that proposition is at least as old as the seminal case of *Roncarelli v. Duplessis*, [1959] S.C.R. 121, at page 140.” [quote omitted]

If the Minister decides under s.80(2) that the species does not face imminent threats to its survival or recovery then the Minister must provide a meaningful explanation of how the Minister reached this conclusion so as to allow the Court to conduct a meaningful review of the decision.<sup>106</sup> The Minister’s reasons for decision must “fit comfortably with the principles of justification, transparency and intelligibility.”<sup>107</sup>

A key purpose of an emergency order under SARA is to protect critical habitat where protection under other SARA provisions will not be put in place in a sufficiently timely manner to ensure the survival or recovery of the species.<sup>108</sup> In the present case, what is awaited is a decision regarding a s.61 safety net order for the Southern Group. In *Adam v. Canada (Environment)*, the Federal Court agreed that a key purpose of a s.80 emergency order in that case was to protect habitat of the listed boreal caribou in Northeastern Alberta while awaiting the production of a recovery strategy.<sup>109</sup>

Similarly, *Centre Québécois du Droit* was also a case where a recovery strategy had not been completed; there, for the Western Chorus Frog. The Federal Court found that “The primary objective of [SARA section 80] is to protect the critical habitat of a listed species while awaiting a recovery strategy.”<sup>110</sup> The Court said:

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<sup>106</sup> *Adam*, paras. 49, 50, 62, 66, 68.

<sup>107</sup> *Canada (Minister of Citizenship and Immigration) v Khosa*, 2009 SCC 12, [2009] 1 SCR 339, at para. 59, cited in *Adam*, para.51.

<sup>108</sup> Draft Species at Risk Act Policies (2009), p.17.

<sup>109</sup> *Adam*, paras. 38(iii) and 39, cited with approval, *Centre Québécois du Droit* at para. 19.

<sup>110</sup> *Centre Québécois du Droit v Canada*, para.20.

“An emergency order will therefore contain protective measures that would normally be found in an action plan (federal, provincial or territorial) in the absence of an urgent need for action.”<sup>111</sup>

Recovery objectives and performance indicators identified in a Recovery Strategy are relevant factors that the Minister should consider in deciding whether to recommend an emergency order.<sup>112</sup> In the present case, the population and distribution recovery objectives stated in the 2014 Recovery Strategy are to:

- “• stop the decline in both size and distribution of all LPUs;
- maintain the current distribution within each LPU; and
- increase the size of all LPUs to self-sustaining levels and, where appropriate and attainable, to levels which can sustain a harvest with dedicated or priority access to aboriginal peoples.”<sup>113</sup>

Performance indicators, and critical habitat in particular, are the means by which progress towards achieving the population and distribution objectives can be measured.<sup>114</sup> The Recovery Strategy identifies critical habitat necessary to achieve the population and distribution objectives for all LPUs of southern mountain caribou. In the present case, it is the critical and Type 1 and 2 matrix critical habitat of the Revelstoke Shuswap LPU that the Minister must consider in determining whether to recommend the emergency order.

## **6.8 Timely decision-making**

Last but not least, timely decision-making is required.<sup>115</sup> The Federal Court in *Adam* observed that the Minister should respond to an application under s.80 within a short

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<sup>111</sup> *Ibid.*

<sup>112</sup> *Adam*, para.42.

<sup>113</sup> Recovery Strategy (2014), pdf p.6.

<sup>114</sup> *Ibid.*

<sup>115</sup> *Adam*, paras. 38(ix) and 39, cited with approval, *Centre Québécois du Droit* at para. 19.

period of time. The Court states at para. 39(iv):

“Keeping in mind the “emergency” nature of the power contemplated in section 80, it may nevertheless be legitimate for the Minister to take a short period of time, following a request such as was made by the Applicants to: (a) obtain information necessary to make an informed opinion under subsection 80(2); or (b) obtain receipt of scientific or other information that is in the process of being prepared.”

## **6.9 Previous emergency order under SARA s.80**

The Governor in Council's authority to make an emergency order under s.80 and s.97(2) of SARA has been exercised in the past. In 2013, the Governor General in Council, on the recommendation of the Minister of the Environment, made the “Emergency Order for the Protection of the Greater Sage-Grouse,” SOR/2013/202. Section 2 of the Emergency Order identifies certain geographic areas of provincial and federal Crown land within Alberta and Saskatchewan as habitat that is necessary for the survival or recovery of the Greater Sage-Grouse. Sections 3 and 4 define certain activities that are prohibited, along with defined exclusions. Section 5 provides an exception for provincially-approved activities related to public safety or health, or to the health of animals or plants. Section 6 identifies the subset of prohibited activities that may also be offences under s.97 of SARA.

## **7.0 Conclusion**

This is an emergency because companies are logging critical caribou habitat now, as you read this (April 2018): caribou are making their way down from the high country looking for spring green-up vegetation at lower elevations. To survive, they need forage and security from predators. Will they find only recent clearcuts? The polygons shown in these maps, once logged, are lost to caribou forever.

The foregoing sections have shown that (1) the British Columbia recovery plan is ineffective and does not protect large amounts of currently occupied and regularly used low elevation winter habitat, (2) the federal recovery plan is flawed in its uncritical

acceptance of provincially designated UWR, so that much of the “matrix” habitat should have been designated as low-elevation critical habitat, and (3) timber harvest continues to remove caribou critical habitat.

The Applicants urge the Minister to recommend, and the Governor in Council to make, an emergency order under SARA s.80 to prohibit timber harvesting on provincial Crown land in the critical habitat and matrix range critical habitat of the Columbia North, Columbia South and Frisby-Boulder-Queest caribou herds in British Columbia. The Applicants also ask the Minister to expedite completion of the process for a ‘safety net’ order under s.61 for the Southern Group of the southern mountain caribou.

The first step toward an emergency order is for the Minister to form an opinion whether the Columbia North herd faces imminent threats to its recovery, and whether the Columbia South herd and the Frisby-Boulder-Queest herds face imminent threats to their survival and recovery. This decision must be made objectively, based on the best available scientific information. Inaction due to a lack of full scientific certainty is not permitted. The Minister must not take into account socio-economic factors or the possibility of future laws or mandatory requirements. Imminent threats need not be guaranteed to materialize, and the impact of threats must be considered over a biologically appropriate timescale. It is sufficient that the threats relate to only a portion of the range of the species. The threats can be to survival or recovery or both, and the concept of “recovery” goes well beyond that of “survival.” The Minister should take into account the recovery objectives and performance indicators identified in the 2014 Recovery Strategy. These include matrix range critical habitat that provides a low risk of predation, defined by wolf density. If the Minister concludes that the Columbia North caribou herd faces imminent threats to its recovery, and that the Columbia South herd and Frisby-Boulder-Queest herd face imminent threats to their survival and recovery then the Minister must recommend to the Governor in Council that it make an emergency order.

The Applicants respectfully submit that, upon consideration of all the available scientific information within the legal framework provided by the *Species at Risk Act*, the Minister must reasonably conclude that the test for an emergency order is met. New timber harvesting within critical habitat is imminent and the Province of B.C. is unwilling to prevent it. If that logging is carried out, it will close the door on the recovery of the Columbia North herd, and on the survival and recovery of the Columbia South and Frisby-Boulder-Queest herds forever. Much of the critical habitat in the Revelstoke Shuswap Local Population Unit is made up of old growth forest (see Appendices C and E) which is key to the survival and recovery of mountain caribou. The only way to sustainably manage old growth forests is to protect them. Old growth forests are not a renewable resource.

COSEWIC has recently reassessed the Southern Group from threatened to endangered. The threats to the survival of the caribou herd are imminent and real.

The crucial purposes of the *Species at Risk Act* as it applies to Columbia North caribou herd at the present time is to prevent the means of recovery, namely old growth critical and matrix habitat, from being removed, thus destroying any chance of recovery forever. The purposes of the *Species at Risk Act* as it applies to the Columbia South and Frisby-Boulder-Queest herds are to prevent their being extirpated (survival) and to provide for their recovery. Survival and recovery is technically and biologically feasible, but it cannot be taken for granted. The 2014 Recovery Strategy found that matrix range is critical habitat. The imminent threats pertain to critical habitat and matrix range critical habitat on provincial Crown land. SARA is carefully crafted to be consistent with the constitutional division of powers while also exercising federal constitutional authority to protect the habitat of listed terrestrial species on non-federal land where provincial legislative instruments are ineffective. SARA provides two mechanisms to achieve these purposes: a 'safety net' order under section 61, and an emergency order under section 80. Both are urgently required. The mechanism for developing and making a safety net


order must be expedited. And an emergency order must be put place to halt imminent destruction of critical habitat until the safety net mechanism is completed and effective protection is established.

Finally, it is respectfully noted that the Minister's decision under s.80(2) must be made in a timely manner, bearing in mind the emergency nature of the order requested.

ALL OF WHICH IS RESPECTFULLY SUBMITTED.


Signed:

Virginia Thompson, EdD

 19 April 2018

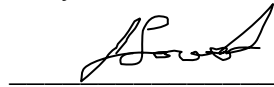
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2011-12," April 2012

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Minister of the Environment: Response Statement - Caribou, Southern Mountain population, January 13, 2015. ([http://www.sararegistry.gc.ca/document/default\\_e.cfm?documentID=2686](http://www.sararegistry.gc.ca/document/default_e.cfm?documentID=2686))

Johnson, Chris J. Libby P.W. Ehlers and Dale R. Seip. Witnessing extinction – Cumulative impacts across landscapes and the future loss of an evolutionarily significant unit of woodland caribou in Canada. *Biological Conservation* 186 (2015) 176–186

Forest Practices Board, Forest Stewardship Plans: Are They Meeting Expectations?, Special Investigation. FPB/SIR/44. August 2015 (<https://www.bcfpb.ca/wp-content/uploads/2016/04/SIR44-FSP-Are-They-Meeting-Expectations.pdf>)

Forest Practices Board, Timber Removal in Mountain Caribou Habitat, Special Investigation. FPB/SIR/45. December 2015 (<https://www.bcfpb.ca/wp-content/uploads/2016/04/SIR45-Timber-Removal-in-Mt-Caribou-Habitat.pdf>)

Forest Practices Board, District Managers' Authority Over Forest Operations, Special Report. FPB/SR/52 (<https://www.bcfpb.ca/wp-content/uploads/2016/04/SR52-Resource-District-Managers.pdf>)

Environment and Climate Change Canada. 2016. Policy on Critical Habitat Protection on Non-federal Lands [Proposed]. *Species at Risk Act*. Policies and Guidelines Series. Environment and Climate Change Canada, Ottawa. 9 pp.

Environment and Climate Change Canada. 2016. Policy on Survival and Recovery [Proposed]. *Species at Risk Act*. Policies and Guidelines Series. Environment and Climate Change Canada, Ottawa. 8 pp.

Canada-British Columbia Southern Mountain Caribou (Central Group) Protection Study, February 2017,  
([http://www.sararegistry.gc.ca/document/default\\_e.cfm?documentID=3106](http://www.sararegistry.gc.ca/document/default_e.cfm?documentID=3106))

## **8.1 Legal authorities**

### Treaties, Statutes and Regulations

- *United Nations Convention on Biological Diversity*, June 5, 1992, 1760 UNTS 79
- *Species at Risk Act*, S.C. 2002, c.29
- *Forest and Range Practices Act*, SBC 2002, c.69
- Forest Planning and Practices Regulation, BC Reg. 14/2004

### Case Authorities

- *Adam v. Canada (Environment)*, 2011 FC 962
- *Alberta Wilderness Association v. Canada (Attorney General)*, 2013 FCA 190
- *Canada (Fisheries and Oceans) v. David Suzuki Foundation*, 2012 FCA 40
- *Centre Québécois du Droit v Canada*, 2015 FC 773
- *David Suzuki Foundation v. Canada (Fisheries and Oceans)*, 2010 FC 1233
- *Environmental Defence Canada v. Canada (Fisheries and Oceans)*, 2009 FC 878

## **9.0 Appendices**

### **Appendix A. Names and Descriptions of Applicants**

North Columbia Environmental Society (NCES): Based in Revelstoke, British Columbia, the NCES came together to represent the environmental issues that concern the residents of Revelstoke, and to work together to find positive solutions. The Society was incorporated as a non-profit association in 1999 and our geographic region encompasses Eagle Pass in the west, Rogers Pass in the east, Mica in the north and Shelter Bay in the south.

Virginia Thompson EdD. Eco-Psychology, OISE, University of Toronto, 2003. Board member of NCES 2007-2010. NCES representative on Mountain Caribou Project (MCP) from 2006 to 2014. The MCP, a coalition of eight environmental organizations, advocated for mountain caribou leading up to the 2007 Mountain Caribou Recovery Plan and after in the Mountain Caribou Implementation Plan. The MCP worked for appropriate protections of habitat and appropriate closures of snowmobiling and commercial recreation (heli-cat skiing) in caribou critical habitat. The MCP advocates for the ongoing implementation, monitoring and enforcement of these protections. Founding member of the Revelstoke Caribou Rearing in the Wild Society (RCRW) and member Board of Directors for the first 18 months of its existence. Led NCES' complaint to the Forest Practices Board on the Biodiversity Amendment of the Revelstoke Higher Level Land Use Plan Order of 2011.

Jody Lownds: Jody obtained her B.A. (Criminology and Criminal Justice) from Carleton University in 2003 and her LL.B. from the University of Ottawa in 2006. She worked for Friends of the Earth Canada as their Environmental Justice Campaigner from 2007 until 2009. Jody was called to the British Columbia Bar in October 2009 and has had her own law practice in Revelstoke since then. Jody has been on the Board of Directors of the North Columbia Environmental Society since 2010 and has been president since 2014. She has also been President of the Revelstoke Caribou Rearing in the Wild Society since 2015.

The Yellowstone to Yukon Conservation Initiative (Y2Y) is a joint Canada-U.S. not-for-profit organization that connects and protects habitat from Yellowstone to Yukon so people and nature can thrive. We are the only organization dedicated to securing the long-term ecological health of this entire region.

Our Vision: An interconnected system of wild lands and waters stretching from Yellowstone to Yukon, harmonizing the needs of people with those of nature.

Our Mission: Connecting and protecting habitat from Yellowstone to Yukon so people

and nature can thrive.

We take a scientific and collaborative approach to conservation, and highlight and focus on local issues that affect the region. We have worked with more than 300 partners, including scientists, conservation groups, landowners, government agencies, Indigenous governments and communities, and businesses, to stitch together this landscape. Y2Y seeks to ensure conservation efforts are aligned in support of large-scale objectives, and therefore become continentally significant. Today, Y2Y is recognized as one of the planet's leading mountain conservation initiatives.

Candace Batycki has been a conservation advocate for over 25 years, with a focus on protecting ecosystems for threatened and endangered wildlife. She has worked for several organizations include Earth Island Institute, Conservation Northwest, the David Suzuki Foundation, and ForestEthics, and currently serves as the BC and Yukon Program Director for the Yellowstone to Yukon Conservation Initiative. Candace has played leading roles in successful campaigns for the protection of marine species, domestic watersheds, mountain caribou habitat, and endangered and high conservation value forests. Candace served as a city councilor in Nelson, BC from 2011 through 2014. She holds an MA in Environment and Management from Royal Roads University.

Lee E. Harding has a BSc in Wildlife Management from Humboldt State University (California) and a PhD in Wildlife Toxicology from Gifu University (Japan). Dr. Harding is a Registered Professional Biologist in British Columbia, Canada and a member (retired) of the College of Applied Biology (B.C.), the American Society of Mammalogists and the British Columbia Field Ornithologists. He was an Environment Canada biologist and program manager for 21 years. Prior to that, he consulted in wildlife ecology throughout western and northern Canada. He studied woodland caribou in Alberta and NWT, Grant's caribou (*R. t. granti*) in Yukon, and introduced reindeer (*R. t. tarandus*) and Peary caribou (*R. t. pearyi*) in Nunavut. After taking early retirement from the Canadian Wildlife Service in 1997, he returned to environmental consulting. His consulting and writing on caribou includes:

Harding guided for mountain caribou and other big game in 1970 and published these experiences in a six-part series in an outdoor magazine, *Fur-Fish-Game*, 1972.

F.F. Slaney & Co. Ltd., 1974. Effects of proposed gas Plants and pipelines on mammals in the Mackenzie River Delta, N.W.T. For Imperial Oil Ltd., Gulf Canada Ltd. and Shell Oil Canada Ltd.

Harding, L. E. 1975. Our mountain caribou: an endangered species? B.C. Outdoors 31:24-31.

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- Journal* 92(1): 36-43
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- Harding, L. E. 1985. A delicate balance: ecological implications of the wolf kill. *B.C. Outdoors* 41:22-26.
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- SciWrite Environmental Sciences Ltd. 2008. southern mountain caribou: interim review of recovery plan progress, April 16, 2008. Coquitlam, B.C., Report for ForestEthics and the Mountain Caribou Project. 33 pp.
- SciWrite Environmental Sciences Ltd. 2008. southern mountain caribou: review of recovery plan progress (draft), October 21, 2008. Coquitlam, B.C., Report for ForestEthics and the Mountain Caribou Project. 40 pp.
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- SciWrite Environmental Sciences Ltd. 2014. Southern mountain caribou critical habitat: A review of maps and data to support recovery plans. Coquitlam, B.C., Report for Wildsight, the David Suzuki Foundation and Conservation Northwest. 60 pp. Submitted to Environment Canada.
- COSEWIC. 2015. COSEWIC Status report on Peary Caribou *Rangifer tarandus pearyi* in Canada. Ottawa, Ontario. Committee on the Status of Endangered Wildlife in Canada. xii + 92 pp.
- SciWrite Environmental Sciences Ltd. 2016. Cumulative impacts on caribou: mountain and boreal caribou in Blueberry First Nation Territory. Coquitlam, B.C., SciWrite Environmental Sciences Ltd. report for David Suzuki Foundation. 21 pp.

**The following appendices are attached as graphic image or Adobe Acrobat files:**

**Appendix B.** 2014 federal Recovery Strategy map of critical caribou habitat Revelstoke Shuswap LPU p.88

**Appendix C.** Map critical caribou habitat & intact watersheds Revelstoke Shuswap LPU Dec. 2017

**Appendix D.** Map cumulative forest harvest Revelstoke Shuswap LPU Dec. 2017

**Appendix E.** Map old forest in Revelstoke Shuswap LPU Dec. 2017.

**Appendix F.** Map road density in Revelstoke Shuswap LPU

**Appendix G.** Map roads, rails, transmission lines in Revelstoke Shuswap LPU

**Appendix H.** Rob Serrouya Frank Wilmer email October 9, 2007

**Appendix I** Letter to Peter Lishman, Project Director, Integrated Land Management Bureau from Mountain Caribou Project, March 17, 2008.

**Appendix J** Map proposed cutblocks by licensee in critical habitat in Revelstoke Shuswap LPU April, 2018.

**Appendix K** Table of proposed logging in critical habitat and OGMAs in Revelstoke Shuswap LPU April, 2018

**Appendix L.** Stella Jones Warsaw FDP in critical caribou habitat 2017

**Appendix M.** Stella Jones Warsaw FDP in OGMA 2017

**Appendix N** Map 2007 Planning Unit 3A proposed and historical retention with four season caribou telemetry

**Appendix O.** Map of Frisby-Boulder-Queest herd and the southern portion of the Columbia North herd showing pre-2018 timber harvest and current and proposed timber harvest locations (red dots) overlain on federally designated critical habitat. Area with concentrated caribou use based on telemetry (see Appendix N) that were omitted from provincial protections and federal designation of critical habitats are encircled in purple.

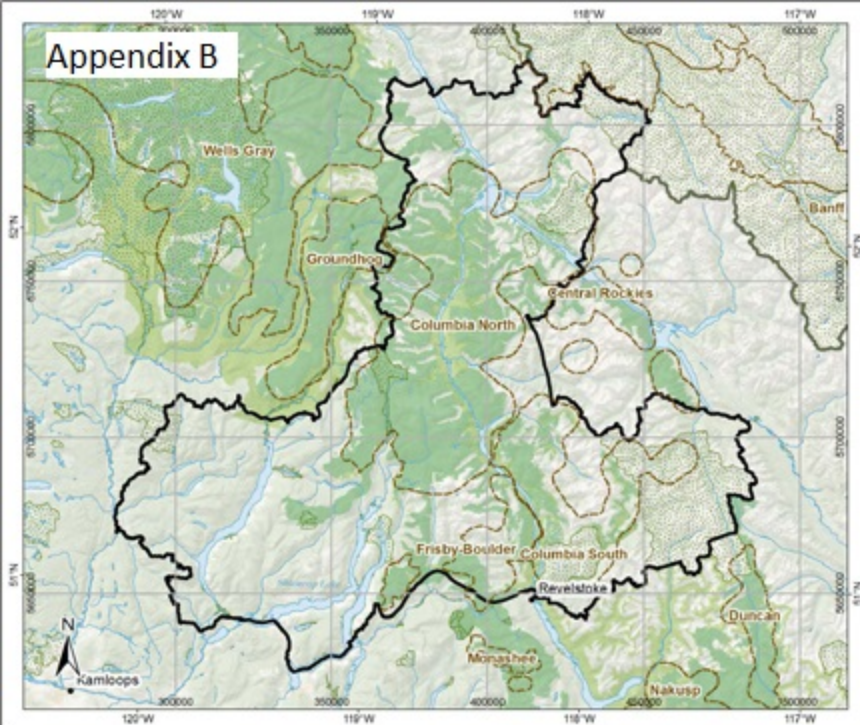
**Appendix P** Map of Columbia South herd showing pre-2018 timber harvest and current and proposed timber harvest polygons overlain on federally designated critical habitat.

Areas with concentrated caribou use based on telemetry (see Appendix N) that were omitted from provincial protections and federal designation of critical habitats are encircled in purple.

**Appendix Q** Map Columbia North (northern portion) herd with pre-2018 timber harvest and current and proposed timber harvest polygons overlain on federally designated critical habitat. Areas with concentrated caribou use based on telemetry (see Appendix N) that was omitted from provincial protections and federal designation of critical habitats are encircled in purple.

**Appendix R** Affidavit of Blair Hammond, Regional Director, Pacific Region, CWS. March 26, 2018 census Southern Mountain Caribou (includes Northern, Central and Southern Groups).

# Appendix B



## Southern Mountain Caribou (Rangifer tarandus caribou) Critical Habitat Revelstoke-Shuswap Local Population Unit British Columbia

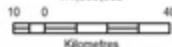
### Legend

- Local Population Unit
- Subpopulation Boundary
- Critical Habitat (high/Low Elevation Range)<sup>1</sup>
- Critical Habitat (Matrix Range)<sup>2</sup>
- Protected Area<sup>1,2</sup>

<sup>1</sup> Staged critical habitat is based on current best available information. Further work is required to complete mapping and identification of critical habitat, including that noted in the Schedule of Studies. <sup>2</sup> Type II matrix range does not include within LPU boundaries. All information becomes available. Maps will be updated to reflect this. Includes National Parks, Provincial Parks and Protected Areas, Ecological Reserves, and Recreation Areas.



UTM Zone Number 11  
 North American Datum 1983  
 1:1,600,000



# Critical Caribou Habitat

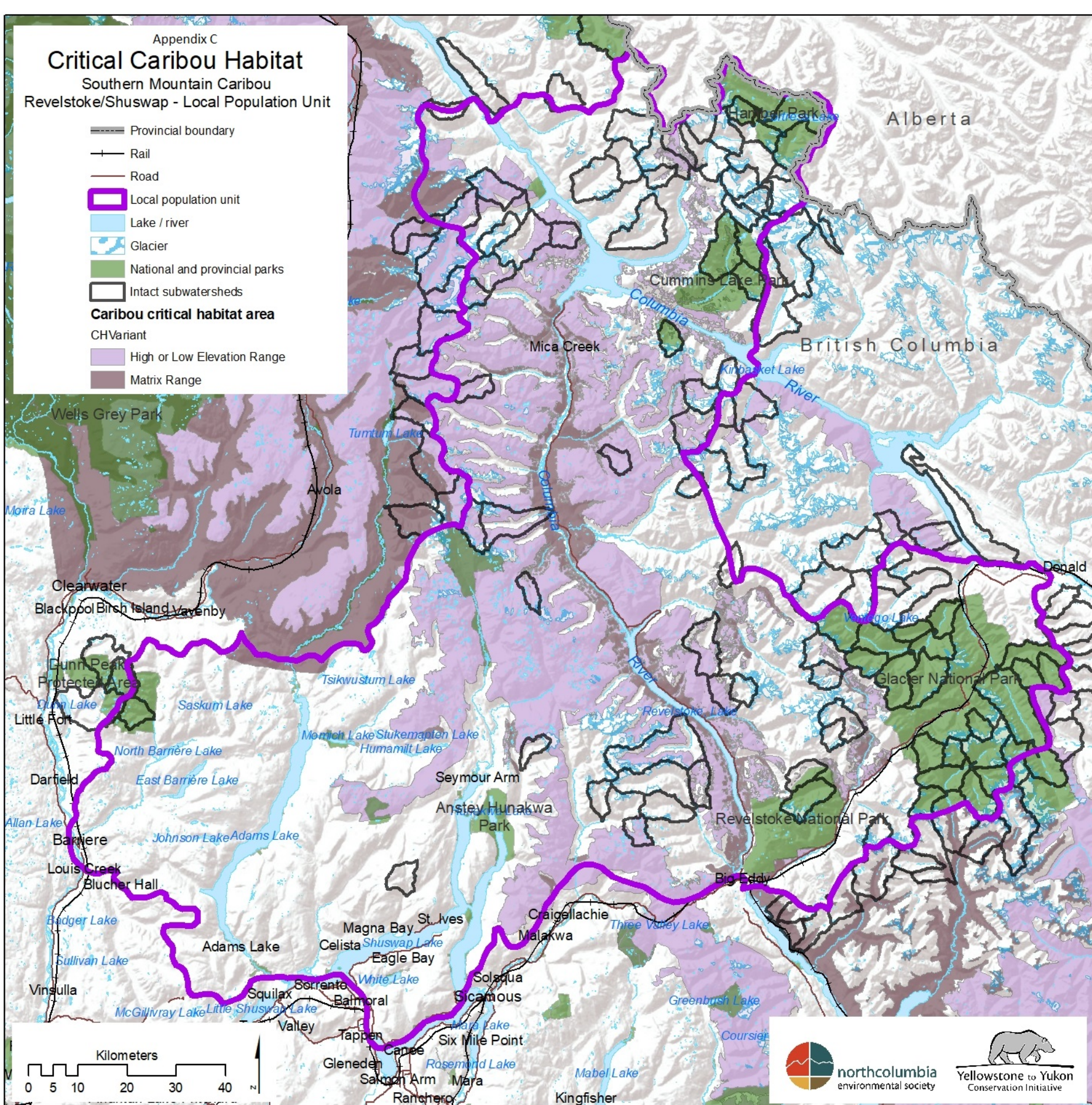
Southern Mountain Caribou  
Revelstoke/Shuswap - Local Population Unit

- Provincial boundary
- +— Rail
- Road
- Local population unit
- Lake / river
- Glacier
- National and provincial parks
- Intact subwatersheds

## Caribou critical habitat area

CHVariant

- High or Low Elevation Range
- Matrix Range



northcolumbia  
environmental society



Yellowstone to Yukon  
Conservation Initiative

Southern Mountain Caribou  
Revelstoke/Shuswap - Local Population Unit

 National and provincial parks

### Caribou critical habitat area

CHVariant

High or Low Elevation Range

Matrix Range

### Forest harvest (cummulative)

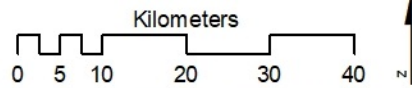
Year

1940 - 1959

1960 - 1979

1980 - 1998

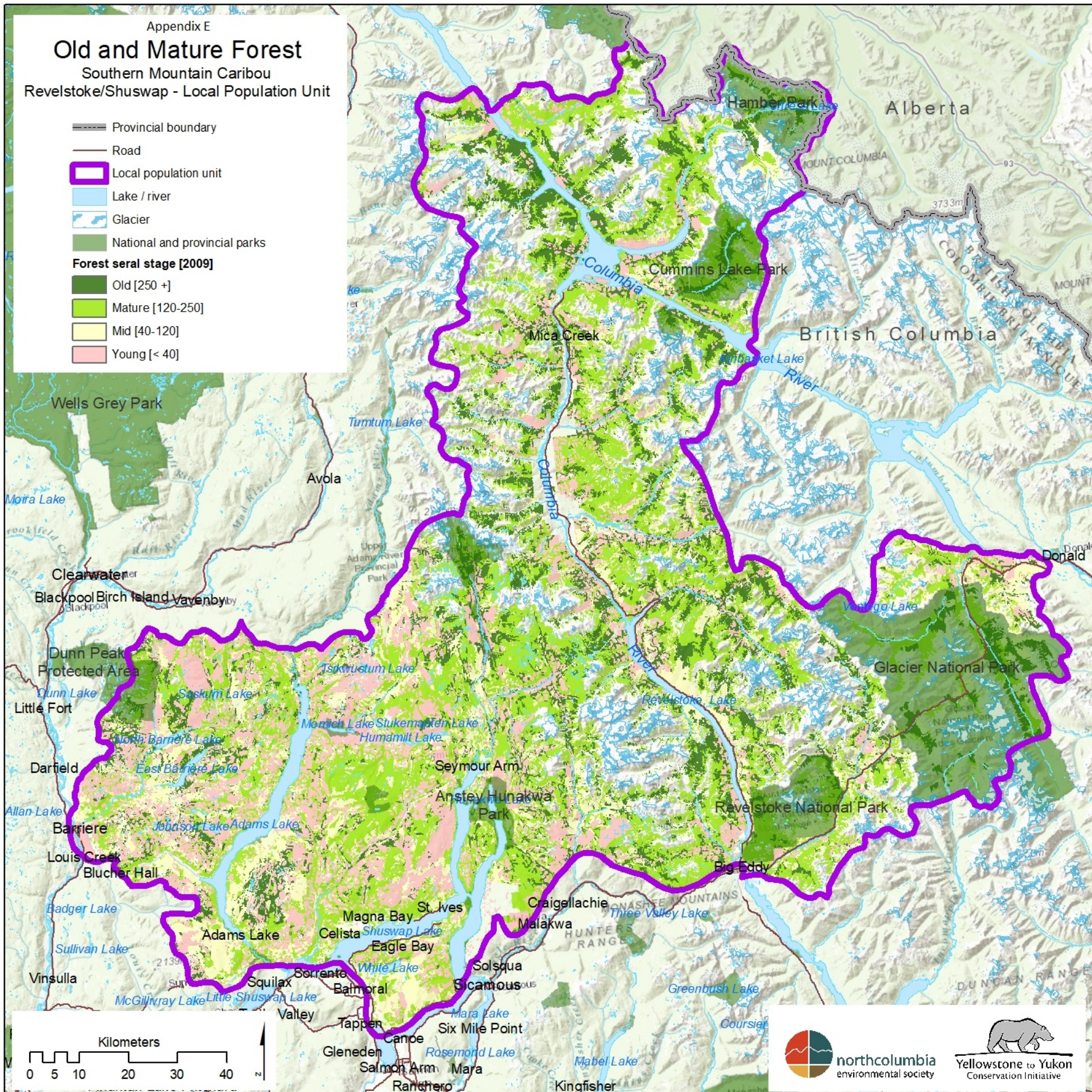
1999 - 2017



# Old and Mature Forest

Southern Mountain Caribou  
Revelstoke/Shuswap - Local Population Unit

-  Provincial boundary
-  Road
-  Local population unit
-  Lake / river
-  Glacier
-  National and provincial parks
- Forest seral stage [2009]**
  -  Old [250 +]
  -  Mature [120-250]
  -  Mid [40-120]
  -  Young [< 40]

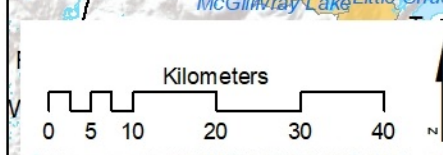
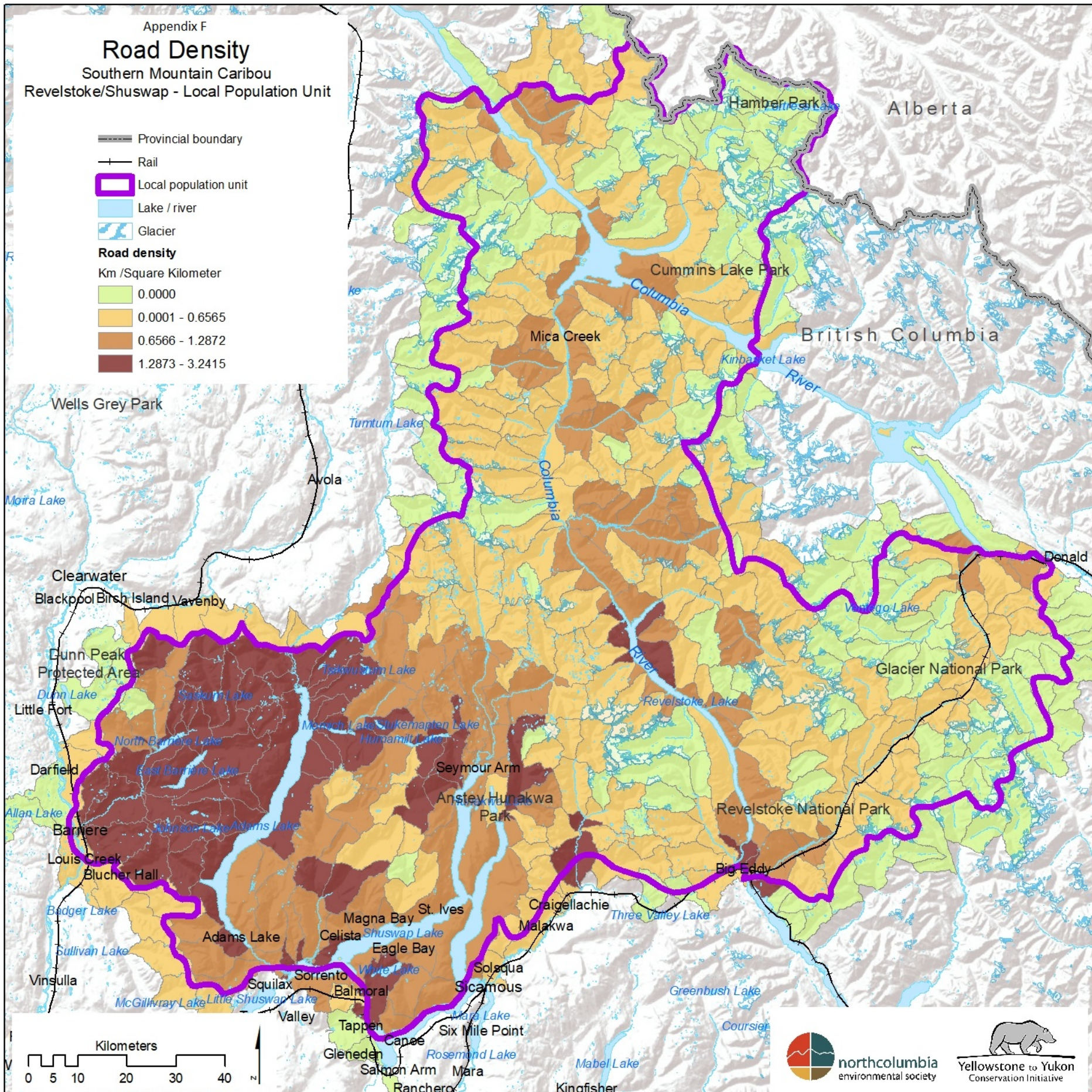


northcolumbia  
environmental society











Yellowstone to Yukon  
Conservation Initiative

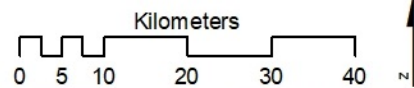
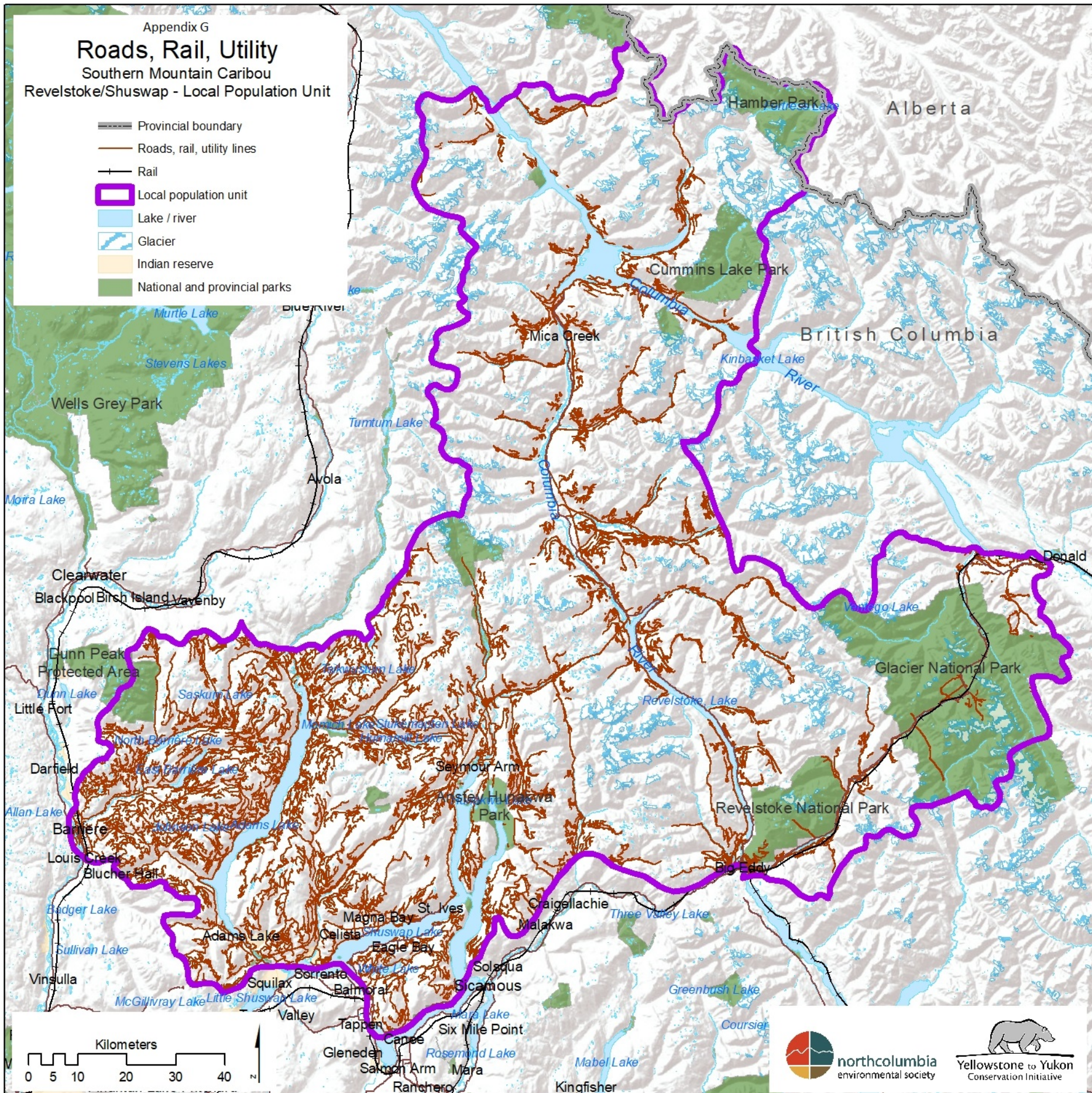
Southern Mountain Caribou  
Revelstoke/Shuswap - Local Population Unit



## Roads, Rail, Utility

Southern Mountain Caribou  
Revelstoke/Shuswap - Local Population Unit

-  Provincial boundary
-  Roads, rail, utility lines
-  Rail
-  Local population unit
-  Lake / river
-  Glacier
-  Indian reserve
-  National and provincial parks



From: Robert Serrouya [rserrouya@telus.net]  
Sent: Tuesday, October 09, 2007 1:47 PM  
To: Wilmer, Frank ILMB:EX  
Subject: RE: Revelstoke

Hi Frank,

The carrying capacity for 363 animals is not something I will touch, because myself and Bruce have never been consulted on this 200 caribou/1000km2 relationship, nor the 363 animals. I stated this during

the conference call and confirmed this with Bruce in a follow-up call. The ability to sustain a given number of caribou will depend more on the intensity and duration of predator/prey management, and no one has told us at what level this will happen, so it is not possible to answer this question.

Here is the process we will follow for the 10,000 ha suggested deployment:

1 - Obtain all spatial caribou retention layers for the Headwaters, Okanagan Shuswap (OKSHU), and Columbia Forest Districts. Some, but not all, of this caribou retention was spatialized by us. It was all done as part of existing, status-quo land use plans.

2 - For the OKSHU district, 9,900 ha of THLB caribou retention was mapped in 2006 and formed the basis of the status quo, as part of the existing OKSHU LRMP. This area equated to about 31% of the CFLB below the operability line. In early 2007, this area was increased to 40% of the CFLB below the operability line, to be consistent with adjacent districts' land use plans. The additional area required about 4,000 ha to get to 40%, 2,600 of which is THLB. This 2,600 ha comes out of the 10,000 ha for planning unit 3A. This 40% area was signed off and agreed to by the MoE, SOFA (Okanagan licensees acronym), researchers, and I think ENGO's also. So now we are left with about 7,400 ha of THLB to deploy.

3 - Generally, the intent of the Assisted to long term self sustaining (ALTS) option will be followed to deploy the remainder of the 10,000 ha. We developed rules for this option about 18 months ago as part of the science team process. The ALTS option had a series of rules that are more constraining than the status quo. In decreasing order of constraints and importance to caribou they were: 1- adopting the broader caribou linework (2005) which is larger than the MAC linework, and applying the 40% old growth retention rule (existing MAC rule) to this larger area. 2 - no logging where UWR overlaps caribou boundaries - so this means stands younger than age class 8+9 can be included in retention (i.e. age 6-7). The rationale is that in UWR, there is lichen for caribou early winter foraging, AND keeping forest cover on these sites prevents the growth of deer and moose forage. So 2 birds with 1 stone. 3 - no logging above the 1994 operability line (100 % retention; current policy is 70% retention)

4 - Dissolving the early seral polygons that were compromises coming out of the MAC process. There was an additional rule in the OKSHU district, - to manage the seral stages adjacent to caribou habitat (i.e. lower elevations) to their natural distributions. This rule is to reduce the amount of ungulate (deer, moose) forage that is created by fires or logging. Another lesser priority rule in the OKSHU district was to include young cutblocks that fragment old retention areas, into retention, so

that in the long term the retention area will be more contiguous.

Clearly 10,000 ha won't be enough to cover off all these rules, but we will be going more or less in the order listed in point 3 above (with subpoints

1-4), with some variation in the OKSHU district because of the different

land use planning history and caribou biology there. In the end SARCO/Gov't appears to be choosing an option that is somewhere between ALTS and Maintain with Resilience.

Now to delineate habitat in the NTHLB - we will simply take all that is caribou habitat as defined by Apps et al. 2001, across all 4 caribou seasons (Early Winter, Late Winter, Spring, Summer). This model has been updated slightly, but the attached scientific journal paper defines caribou habitat in the Columbia Mountains. If you need more detail on this let me know.

Please call me if you have any more questions.

Regards,  
Rob Serrouya

At 10:33 AM 10/09/07, you wrote:

>Hi Rob,

>

>Could you document (informally) the approach you are taking and send to  
>me as soon as possible as Peter Lishman has requested this and it would  
>be useful for the rest of the planning team to see as well. Since we  
>have been told the Eric Vidal report (Analysis of Habitat Options for  
>Forest Industry Stakeholders) Status Quo numbers are the starting point  
>for allocating the 10,000 ha it would be useful to document how the 2  
>relate. If you could indicate your approach in the NTHLB that would be  
>helpful also.

>

>Can you also check with Steve Wilson to discuss the need to identify  
>area to find the carry capacity (363 animals) as Mike G. was  
suggesting.

>

>Please give me a call to discuss when you have a chance.

>

>-----Original Message-----

>From: Robert Serrouya [mailto:rserrouya@telus.net]

>Sent: October 5, 2007 8:36 AM

>To: Wilmer, Frank ILMB:EX

>Cc: Steven F. Wilson

>Subject: Re: FW: Revelstoke

>

>Hi Frank,

>

>I spoke to Steve yesterday. Plan A is still in effect - The budget is  
>10,000 ha of THLB and we will suggest where that area is to be placed  
to best benefit caribou. We will also map any NTHLB that is caribou  
>habitat there is no limit to this area.

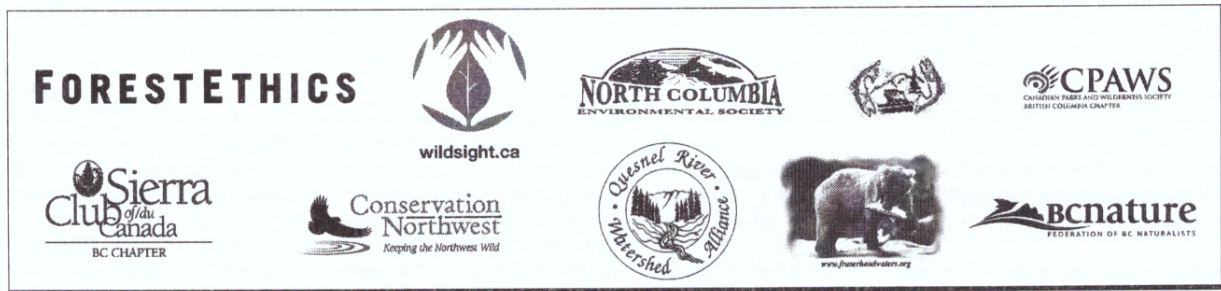
>

>Thanks,

>Rob.

>

>At 04:47 PM 04/10/2007, Wilmer, Frank ILMB:EX wrote:  
> > Hi Rob,  
> >  
> >Could you talk with Steve and clarify the approach to be used and  
> >forward to me. I am off tomorrow so can we talk on Tuesday.  
> >  
> >-----Original Message-----  
> >From: Lishman, Peter ILMB:EX  
> >Sent: October 4, 2007 4:37 PM  
> >To: Wilmer, Frank ILMB:EX  
> >Subject: FW: Revelstoke  
> >  
> > Frank  
> >Please have Rob document your approach and send it to me  
> >  
> >Thanks  
> >  
> >-----Original Message-----  
> >From: Steven F. Wilson [mailto:steven.wilson@ecologicresearch.ca]  
> >Sent: October 4, 2007 4:28 PM  
> >To: Lishman, Peter ILMB:EX  
> >Subject: Re: Revelstoke  
> >  
> >I talked to Rob Serrouya this afternoon and the process in Revelstoke  
> >will be consistent with the other planning groups.  
> >  
> >On 4-Oct-07, at 4:22 PM, Lishman, Peter ILMB:EX wrote:  
> >  
> > > Steve  
> > > I understand that that the Revelstoke ( Rob ) Habitat group want  
> >to  
> > > use a different mapping process .have they discussed this with you  
> >?  
> > >  
> > > Peter Lishman RPF  
> > > Project Director  
> > > FrontCounterBC/Mountain Caribou Implementation Kamloops  
> > >  
> > > phone- 377-2163  
> > > cell- 320-0655  
> > >



Mr. Peter Lishman  
Project Director  
Integrated Land Management Bureau  
145 3rd Avenue  
Kamloops, British Columbia

March 17, 2008

Dear Mr. Lishman:

The Mountain Caribou Project has serious concerns about specific issues within the Revelstoke/Shuswap Mountain Caribou Planning Unit 3A, including the identification of status quo and incremental habitat, predator management and controls on motorized recreation.

Government must address these issues consistent with their commitment to protect adequate habitat to achieve the recovery objective of "Assisted Long-Term Sustaining" and must move forward **concurrently** with all necessary recovery policy tools, not just predator management. We think it quite likely that the government announced recovery objective has already been seriously compromised by the removal of significant habitat identified by the herd experts as high suitability habitat, critical for achieving recovery.

Biologists have identified 34,000 ha of high suitability incremental habitat in the THLB in this Planning Unit. SaRCO capped incremental habitat at 10,000 ha. This appears insufficient to achieve government's commitment to "Assisted Long Term Sustaining" and would result in downgrading this Planning Unit to "Maintain with Resilience", which would likely require intensive and indefinite predator controls.

This situation is exacerbated by 2100 ha of THLB and 500 ha of NTHLB being considered as incremental habitat in the area covered by the Okanagan-Shuswap LRMP, rather than being considered as "status quo", the starting point before the SARCO process. Because these protections were pursuant to a Government Relations Act order signed in July 2006 by then-Deputy Minister of Environment Chris Trumpy, it is our position that they should not be considered as part of the 10,000 ha incremental.

In the introduction the final report equivocates with regard to acceptable industry impacts saying that the RSHT would allocate incremental habitat such that it would "minimize impacts on mills and log producers in the short term (within 5 to 10 years)." Immediately below that #3 of the numbered bullet points it says, "ensure no mills or operators go out of business due to incremental habitat." These are two very different stipulations with very different implications for habitat protection. The original commitment was for incremental habitat to cause no mills to go out of business in the short term of 5 to 10 years.

Continuing to compromise on required habitat and effective habitat protection will lead to an unacceptable reliance on predator controls, the wasting of taxpayer dollars and the risk of losing already

# FDU Forest Blocks Revelstoke / Shuswap LPU 19

— Revelstoke/ Shuswap LPU 19

■ Caribou Critical Habitat

**Unharvested FDU Planned Blocks LPU19**  
Licensee

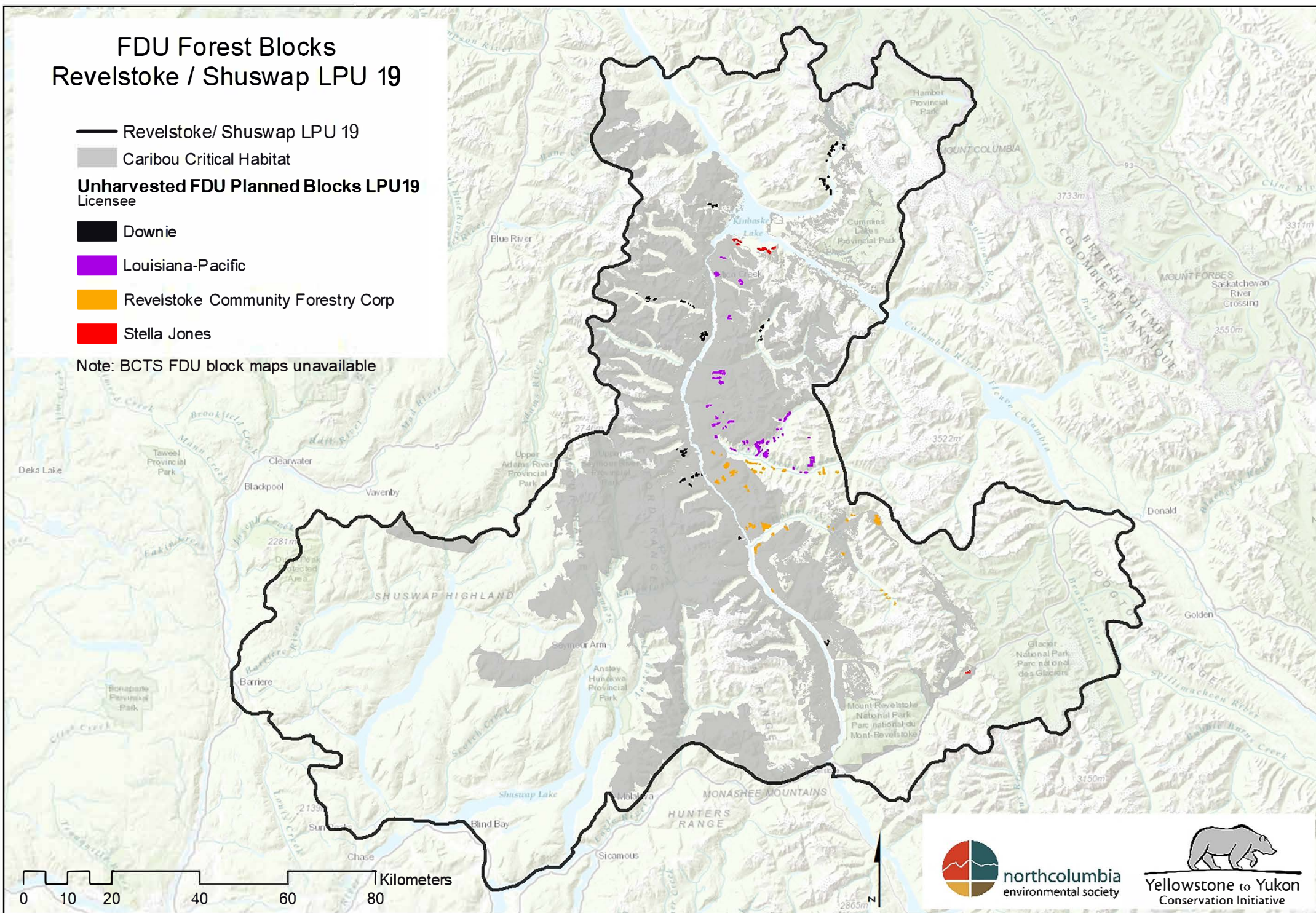
■ Downie

■ Louisiana-Pacific

■ Revelstoke Community Forestry Corp

■ Stella Jones

Note: BCTS FDU block maps unavailable



**Licensee Forest Development Plans - Unharvested blocks within Critical Caribou Habitat and Non-legal Old Growth Management Areas**

Southern Caribou Revelstoke/Shuswap LPU 19

Draft March 28 2018 (Gregory Kehm Associates)

Notes: missing BCTS licensee FDU maps; digitised from various quality FSP maps; included draft FSP's and areas may not match approved licensee plans

Summaries based on best available data obtained directly from licensees or company web sites.

CCHab = Federal Caribou critical habitat areas; nLOGMA = provincial non-legal Old Growth Management Areas

LPU 19 Licensee   Period   Block Status	Values		
	Area of CCHab High/Low Elev. Habitat (Ha.)	Area of CCHab Matrix Habitat (Ha.)	Area of Non legal OGMA (Ha.)
<b>Downie</b>	<b>182</b>	<b>217</b>	<b>67</b>
<b>2017-2022</b>			
CP Approved	40	78	27
Declared blocks	142	139	41
<b>Louisiana Pacific</b>	<b>437</b>	<b>316</b>	<b>143</b>
<b>2017-2022</b>			
Active Cut Blk	173	83	76
CP Approved	-	-	4
Potential Future Development Area	265	233	62
<b>Revelstoke Community Forestry Corp</b>	<b>611</b>	<b>337</b>	<b>73</b>
<b>2015-2020</b>			
Previously Proposed Blocks	611	186	71
Proposed Cut Blk	1	151	2
<b>Stella Jones</b>	<b>5</b>	<b>38</b>	<b>104</b>
<b>2017-2022</b>			
Cutting Permit Blocks	5	38	104
<b>Grand Total</b>	<b>1,234</b>	<b>908</b>	<b>387</b>

Licensee Approx. Total Proposed Block Area (Ha.)	Proposed Cut Blocks in nLOGMA, CCHab [%]
854	55
1,393	64
1,364	75
214	69
3,825	



- Warsaw FDP proposed blocks
- Cut blocks (2017)
- Old Growth Management Areas (m)

Cut blocks (2017)

Caribou critical habitat LPU  
CHVariant

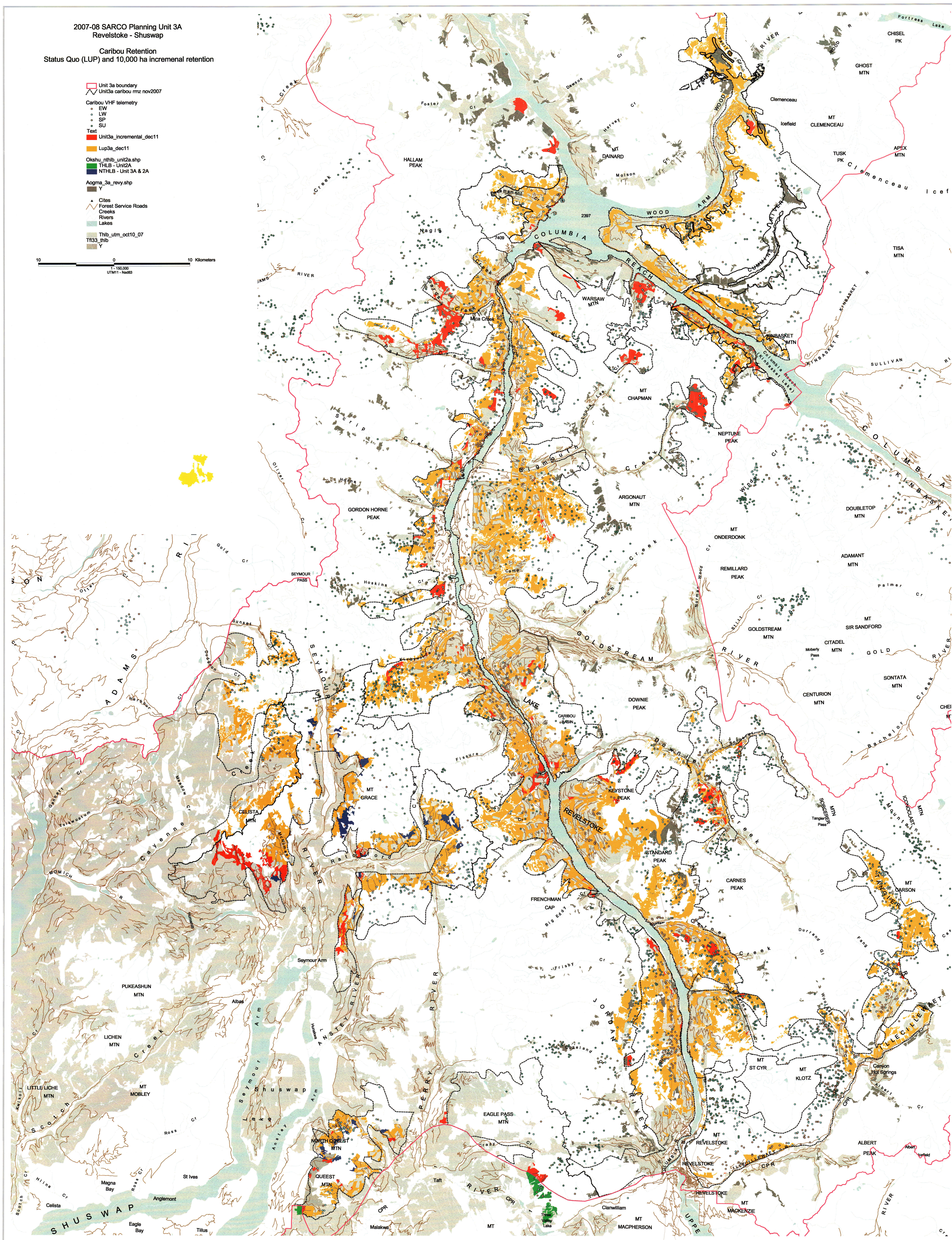
☐ High or Low Elevation Range

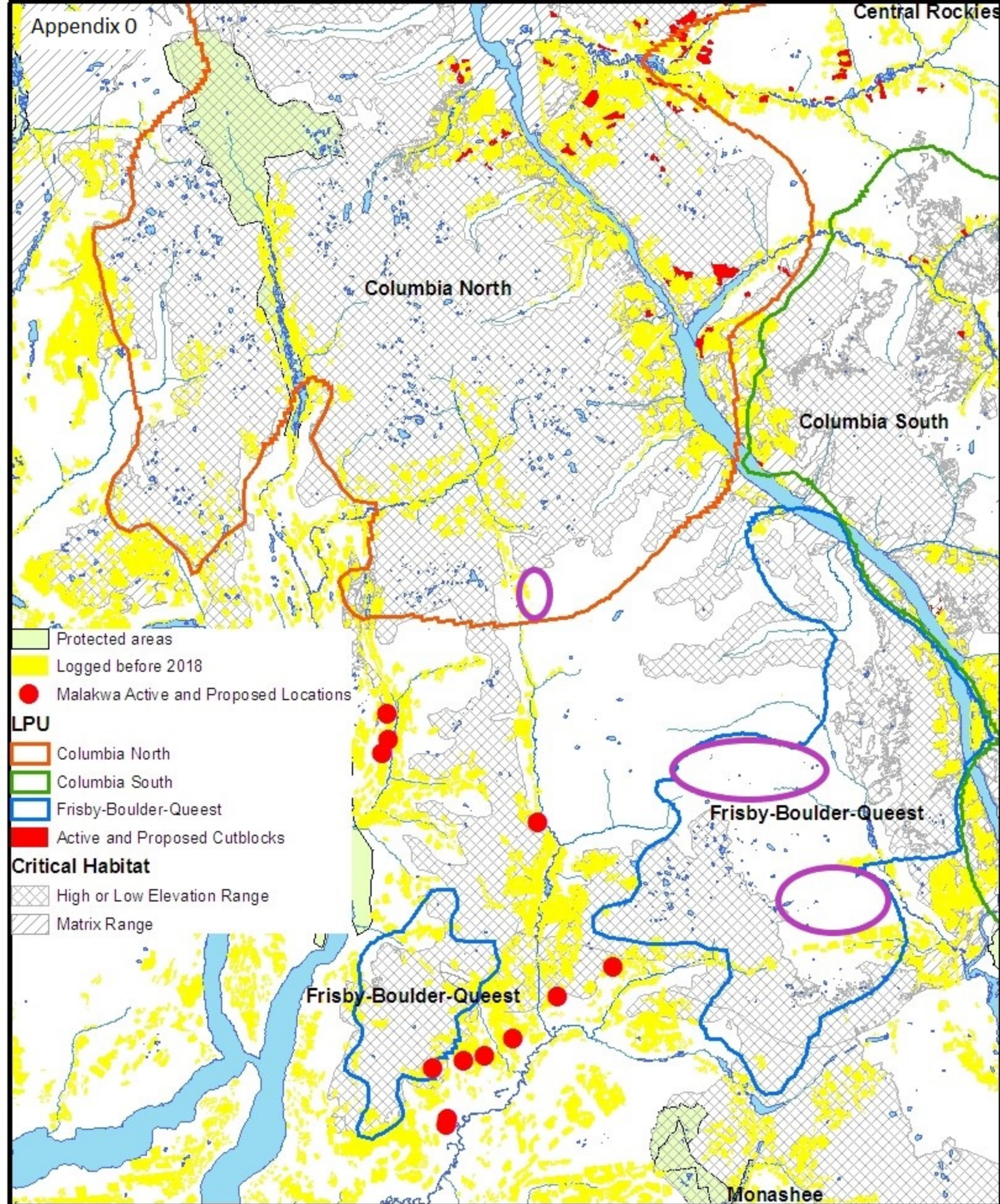
Matrix Range

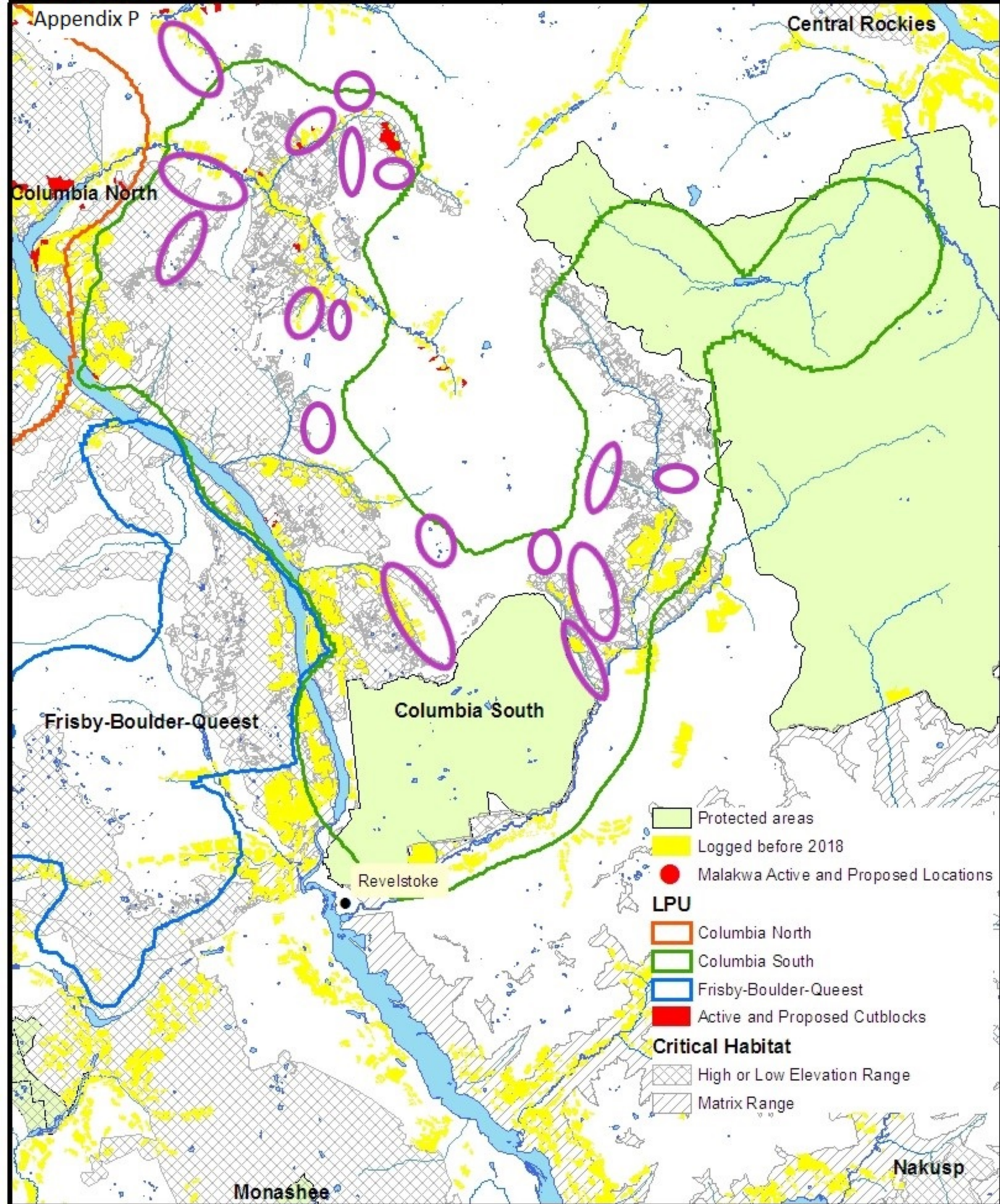
Kilometers

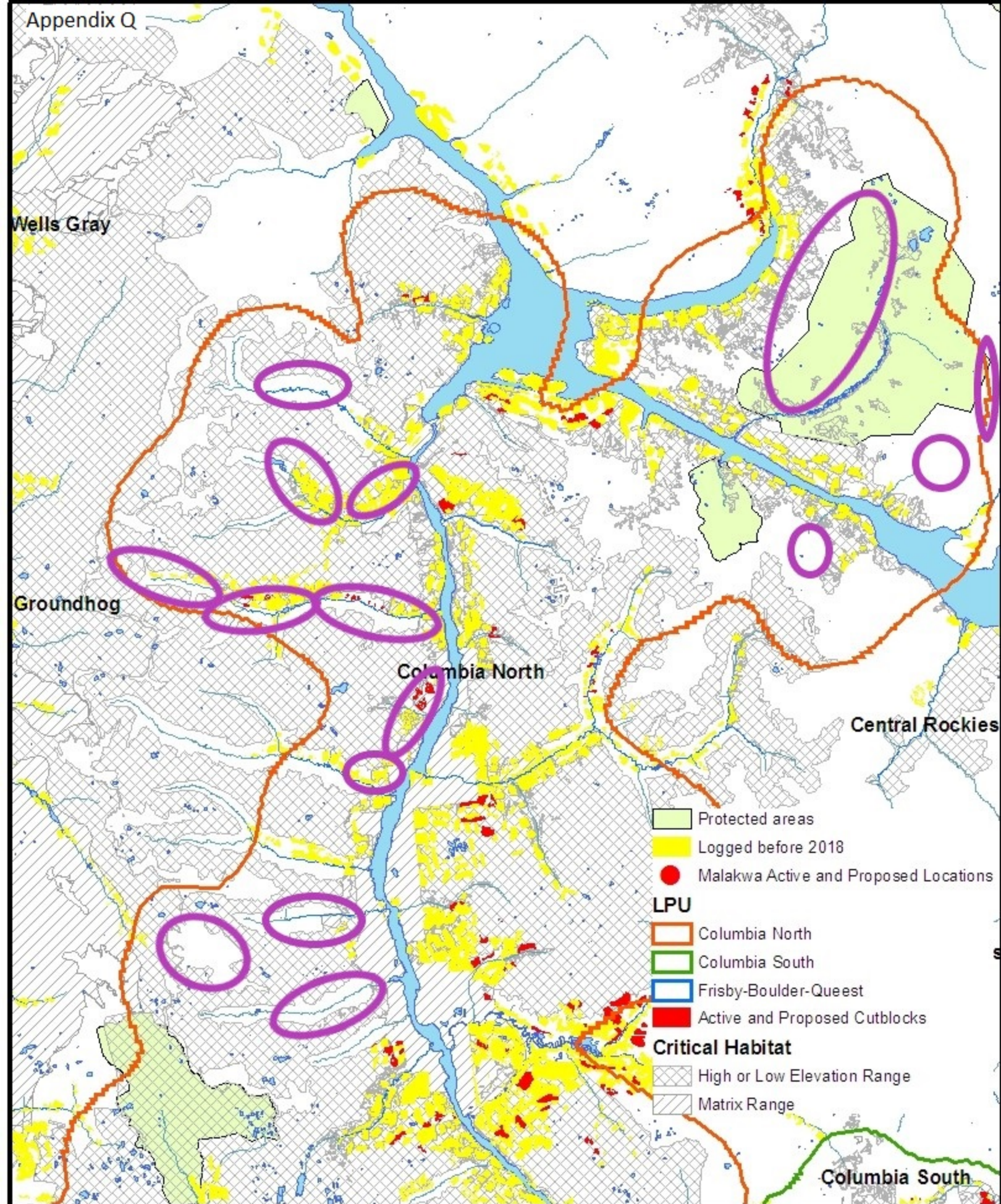
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

10 0 10 Kilometers  
1 - 150,000  
UTM11 - NAD83









**FEDERAL COURT**

BETWEEN:

**WELLS GRAY GATEWAY PROTECTION SOCIETY**

Applicant

and

**THE MINISTER OF ENVIRONMENT AND CLIMATE CHANGE and  
ATTORNEY GENERAL OF CANADA**

Respondents

**AFFIDAVIT of BLAIR HAMMOND**

I, Blair Hammond, public servant with Environment and Climate Change Canada (“ECCC”), located at 5421 Robertson Road, RR #1, Delta, in the Province of British Columbia, AFFIRM THAT:

1. I am the Regional Director, Pacific Region, of ECCC’s Canadian Wildlife Service, which position I have held since February 2018. As such, I have personal knowledge of the facts and matters deposed to in this affidavit except where the same are stated to be based on information and belief, and where so stated I verily believe them to be true.
2. The purpose of this affidavit is to update the population numbers for Southern Mountain Caribou. In my previous affidavit (affirmed January 30, 2018), I provided an estimate of the total population of Southern Mountain Caribou of 4,500 based on the *Canada – British Columbia Southern Mountain Caribou (Central Group) Protection Study, May 2017*, which is attached to my previous affidavit as Exhibit “E” and on other information collected from British Columbia.

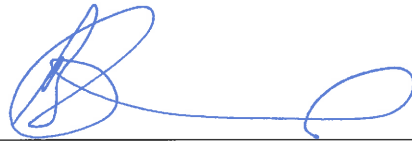
3. Census studies of the Southern Mountain Caribou population are carried out largely by British Columbia. Population counts are typically conducted in the early spring or winter, when foliage is less of an obstacle in spotting animals, and when snow allows for easier tracking. Not every local population unit or herd is counted annually and every count is necessarily an estimate because not every animal will be seen. British Columbia's population estimates typically use a "sightability correction factor" to account for animals not seen.

4. In the process of liaising with British Columbia in respect to Canada's protection assessment per s.61 of the *Species at Risk Act*, and in response to the present application, I became aware that more recent population data for the Southern Mountain Caribou has become available. Based on this new data, the most current estimate of the Southern Mountain Caribou population is 3,800.

AFFIRMED before me at the City of Vancouver, in the Province of British Columbia, this 26th day of March, 2018.



Commissioner for taking Affidavits  
within British Columbia



**BLAIR HAMMOND**

**Dennis Hill**  
Barrister and Solicitor  
Department of Justice  
#900 - 840 Howe Street,  
Vancouver, BC V6Z 2S9