Canada-British Columbia Southern Mountain Caribou (Central Group) Protection Study Summary May 2017

The purpose of this jointly-conducted Protection Study ("the Study") is to inform provincial and federal decision making with respect to the ongoing protection and recovery of southern mountain caribou.

"Southern mountain caribou" refers to the caribou population that was listed as threatened in 2003 on Schedule 1 of the *Species at Risk Act* (SARA) as "Woodland Caribou, Southern Mountain population (*Rangifer tarandus caribou*)". The federally-listed entity includes two different ecotypes recognized by BC ("Mountain Ecotype" and "Northern Ecotype") as well as subpopulations in Alberta.

This study is focused on the three Central Group Local Population Units (LPUs) that occur in BC, as defined in the federal recovery strategy. The three LPUs that are the subject of this Study are Pine River, Quintette, and Narraway. The Study reviews information that was publicly available as of October 2016.

1. Introduction

British Columbia (BC) and Canada are signatories to the national *Accord for the Protection of Species at Risk* and the *Canada-British Columbia Agreement on Species at Risk*. This Study was undertaken as part of the ongoing collaboration between the two governments.

Environment and Climate Change Canada (ECCC) will use the information from the Study to help inform decisions under the *Species at Risk Act*, in particular in relation to whether the individuals and their critical habitat are protected (i.e. sections 34, 61, 63). The draft SARA <u>Policy on Critical Habitat Protection on Non-federal Lands</u> provides more detail on the federal process, and the possible outcomes.

BC will consider information presented in this Study, as well as feedback received during the public comment period, to evaluate the effectiveness of their legislation and management actions taken to date and to assess the benefits, costs, and biological/technical feasibility of additional actions that could improve progress toward meeting Canada and BC's caribou recovery objectives.

Both governments may consider this Study to provide context for land use, regulatory, and other decisions that could affect conservation and recovery of southern mountain caribou.

This Study provides an overview of BC's approach to caribou recovery, including actions aimed at stabilizing population declines in the short term, addressing legacy impacts of habitat change, and reducing future risk to caribou. BC's approach includes the requirement to balance the competing needs of caribou conservation with the varied socio-economic interests and rights of existing tenure holders, Indigenous peoples, and local communities. The exact amount of indirect costs to the Crown for any new protection measures in the form of lost rent from resource development is currently unknown, but will need to be carefully developed to avoid unnecessarily impacting resource development activities. As an example, the capital investment, economic activity and associated job creation of the mining, wind power, petroleum and natural gas sectors within the Study area that has the potential to be impacted by caribou-related land use decisions exceeds \$20 billion. An additional \$1 billion in economic activity in the forest sector has the potential to be impacted.

Provinces and territories are the lead jurisdiction for the management and recovery of caribou on non-federal lands in Canada. BC's approach is presented in provincial implementation plans which were completed for mountain caribou in 2007 and for South Peace northern caribou in 2013. Implementation plans outline the provincial government's response to managing species at risk. Such government decisions are informed by science but are also made with consideration of socio-economic factors. BC's caribou implementation plans include actions related to habitat protection and restoration, predator-prey management, and direct population actions such as transplantation of wild caribou and maternity penning. The provincial *Implementation Plan for the Ongoing Management of South Peace Northern Caribou (Rangifer tarandus caribou pop. 15) in British Columbia* includes a goal of increasing the population of South Peace Northern Caribou to ≥ 1200 animals within 20 years across their range.

The federal approach to caribou recovery is reflected in the <u>Recovery Strategy for Woodland Caribou</u>, <u>Southern Mountain population in Canada</u>, which was finalized in 2014. It includes a population and distribution objective of self-sustaining local population units (LPUs) that do not require ongoing management intervention and, where appropriate and achievable, population sizes that can sustain a harvest with dedicated or priority access to Indigenous peoples. Managing habitat to meet current and future habitat requirements of southern mountain caribou, and managing predators and alternate prey, are among the most urgent strategies presented.

Although the two governments have differing views on some aspects of what habitat is required for recovery, and on approaches to caribou recovery, information from the

federal recovery strategy has been used for the purpose of this Study; in particular, the federal definition of critical habitat. Work to reach agreement on these differing views is occurring through a separate ongoing process to consider possible amendments to the federal recovery strategy and provincial plans.

2. Biological Review & Study Context

As of 2016, the total population estimate for the extant subpopulations of Central Group caribou within BC is 219 individuals. In addition to the extirpation of the Burnt Pine subpopulation before 2015, remaining subpopulations have declined by at least 50% over the past 10 years, with the exception of the Moberly subpopulation. The Moberly subpopulation has increased since 2014, likely due to a combination of maternity penning and wolf control; however, the current population size of the Moberly subpopulation is less than 25% of its estimated population in 1997.

Surveys indicate that rates of both adult female survival and juvenile recruitment are too low in most years to maintain stable populations. The most common cause of adult female caribou mortality is wolf predation. The ultimate drivers of higher wolf predation on caribou include: changes in habitat that result in caribou being exposed to predators more frequently, higher numbers of predators, and increased predator hunting efficiency. In addition to changes in habitat, the current hunting and trapping pressure on wolves has declined in the last 15-20 years, which also contributes to higher numbers of wolves.

Critical habitat as it is defined in SARA is identified in the federal recovery strategy, and is defined by its location, type, and amount. Six categories of critical habitat are identified, five of which apply to the Central Group. Critical habitat is located within the LPU boundaries, except for Type 2 matrix range, which can also occur in areas outside the LPU boundaries for the Central Group. "Type" describes the biophysical attributes of critical habitat, which are described further in the recovery strategy itself. The strategy describes the critical habitat required to support self-sustaining populations as follows:

- In high elevation winter and high elevation summer ranges, critical habitat includes that which is currently suitable as well as adjacent habitat that over time would become suitable through restoration.
 - The strategy indicates that minimal disturbance to critical habitat in high elevation ranges is considered necessary to achieve recovery.
- In low elevation winter range and Type 1 matrix habitat with less than 65% undisturbed habitat¹, critical habitat includes that which is currently suitable as

¹ Undisturbed habitat is defined in the federal recovery strategy as: habitat not showing any: i) human-caused disturbance visible on Landsat at a scale of 1:50,000, including habitat within a 500 m buffer of

well as adjacent habitats that over time would contribute to the attainment of 65% undisturbed habitat.

- Preliminary disturbance mapping completed for this Study using imagery from 2011 indicates approximately 38% undisturbed habitat in the Pine River LPU, 46% in the Quintette LPU, and 56% in the Narraway LPU. An analysis for the Quintette LPU using imagery from 2015 found 38% undisturbed habitat.
- Type 2 matrix range is critical habitat that provides for an overall ecological condition that will allow for low predation risk, defined as wolf population densities of less than three wolves per 1000 km².

The provincial implementation plan for South Peace northern caribou includes objectives to protect 90% or more of the high elevation winter habitat in the Moberly, Burnt Pine, Scott, Kennedy Siding², and Narraway herd ranges, and to protect 80% or more of the high elevation winter habitat in the Quintette herd range. The plan calls for the management of the industrial footprint in identified high and low elevation habitats by requiring standardized industry management practices across all industry sectors to reduce or prohibit surface disturbance and habitat alteration, and to support long-term sustainable caribou habitat conditions.

The federal recovery strategy indicates that critical habitat destruction would result if a portion of the critical habitat were degraded, either permanently or temporarily, by activities occurring either within or external to the critical habitat, such that the habitat function is no longer available to the species when needed.

An integral component of BC's recovery actions has been the identification and management of suitable caribou habitat, as described in later sections of this Study. Provincial and federal recovery plans recognize that habitat protection alone does not fully address the current causes of declining caribou populations. Declines are a result of a complex interaction of legacy habitat impacts, current land use practices, likely climate effects and interacting wildlife responses. Predation is directly linked to these interacting habitat factors and is recognised as the most significant, immediate direct threat to southern mountain caribou survival and recovery.

In addition to aerial wolf removal and expanded legalized hunting and trapping of wolves, other non-habitat recovery measures implemented by the Government of British Columbia to address this threat include control of other predators such as cougars,

the human-caused disturbance; and/or ii) fire disturbance in the last 40 years, as identified in data from each provincial and territorial jurisdiction (without buffer).

² These four herd ranges are referred to as subpopulations and comprise the Pine River LPU in the federal recovery strategy. The SPNC plan also includes the Graham herd, which is part of the Northern Group in the federal recovery strategy.

primarily through expanded legalized hunting and trapping; reduction in alternate prey such as moose; maternity penning, which involves capturing pregnant female caribou and placing them in an enclosure free from predators until after the calves are born; translocation of caribou from areas where populations are larger to areas with smaller populations; and consideration of a captive breeding program. Each of these measures has associated ecological, technical, and financial challenges.

3. Description of Legislative Instruments

The Species at Risk Act recognizes the importance of protection of individuals of species at risk and their habitat. For caribou on private or provincial land, SARA looks first to the provinces to provide that protection. If the species and their critical habitat are not protected / effectively protected, the federal Minister of Environment and Climate Change must recommend to the Governor in Council (federal Cabinet) that protection be put in place. The Minister may not consider socio-economic factors in making her recommendation. The federal Cabinet, on the other hand, may take into account such factors as socio-economic impact and non-legally-binding measures to achieve protection and recovery. The following information was gathered for the purpose of informing the decisions of the Minister and, if necessary, federal Cabinet.

With respect to habitat, the Government of British Columbia uses a variety of legislation to manage land-based activities. The purpose of most of this legislation is to manage activities such as forestry, mining, oil and gas and recreation (including the environmental effects of those activities). There is no single piece of legislation which has, as a specific purpose, the protection of caribou habitat, but caribou habitat is explicitly considered in the designation and application of many of the legislative instruments discussed in the Study.

Legislation was considered in the Study if the geographic areas to which it applies overlap with the boundaries of the three Central Group LPUs, and the activities it regulates could result in destruction of critical habitat.

For the purpose of the Study, the specific criteria included in the description of legislative instruments are those set out in Environment and Climate Change Canada's draft Policy on Critical Habitat Protection on Non-federal Land. These include prohibitions and offences, penalties or consequences, enforcement regime, limitations, exemptions, discretion, and permitting authorities.

Policy interpretation of the legislation, the history of decision-making with respect to authorizations, and compliance and enforcement activities were also reviewed. These considerations are referred to as the "history of application".

This review is a "point in time" analysis and only considers legislative instruments that were in force at the time of writing.

Summary Table 1 summarizes the various legislative instruments that were reviewed, and broadly how the main groups of activities that could destroy critical habitat are constrained by those instruments.

With respect to individuals, the Study includes a summary of the *Wildlife Act* as it applies to protection of individuals of the species. The *Wildlife Act* prohibits the killing, harming, harassment and similar actions with respect to caribou. Discretion exists to authorize some of these actions, including through the *Hunting Regulation*. The current regulations do not include authorizations for hunting of caribou within any Central Group local population unit boundaries. The *Permit Regulation* provides discretion for a regional manager to issue permits to capture and possess live wildlife. This discretion is constrained by the requirement for the regional manager to be satisfied that issuing the permit is not contrary to the proper management of wildlife resources in British Columbia.

4. Analysis of legislative instruments

A landscape analysis using Geographic Information Systems (GIS) technology was completed within the boundaries of the Central Group LPUs to identify areas in which spatially-explicit legislative instruments are in place that would constrain any of the following groups of activities:

- Mining-related (including coal & mineral exploration & road / transmission line building)
- Oil & gas-related (including road building, pipelines, and forest harvesting as a precursor)
- Forest harvesting -related (including road building)
- Renewable energy-related (e.g. windfarms, independent power projects & associated roads / infrastructure)
- Recreation-related (e.g. winter motorized & non-motorized recreation, ski hill expansion, summer ORV use)

The analysis showed that none of the spatially-explicit legislative instruments considered in this study are in place over approximately 10% of high elevation ranges and 44% of non-high elevation ranges. Much of this area is not considered by BC to be caribou habitat. In these areas, operators must still comply with the general provisions of the *Forest and Range Practices Act* (FRPA), *Coal Act*, *Oil and Gas Activities Act* (OGAA), etc., and their associated regulations. Voluntary guidelines and professional reliance may go further in mitigating the effects of the activities on caribou.

There are also areas in which some, but not all, activities are constrained by legislative instruments. In general, geographic overlap of multiple legislative instruments is more likely to constrain activities. Summary Map 1 shows the extent of overlapping legislative instruments.

Even where activities are constrained by legislative instruments, there may be discretion to allow activities under certain circumstances. In some cases, statutory decision makers are required to issue an authorization, so long as the application for the authorization is consistent with the terms of the legislation, which does not necessarily include consideration of caribou habitat. However, in such cases, decision-makers may be able to attach conditions that consider caribou habitat. Key examples of these situations are provided in Table 1.

A preliminary review of authorizations made since the various legislative instruments have been put in place indicates that discretion to authorize activities that would otherwise be prohibited has been exercised to allow activities to proceed, though in accordance with the enabling legislation. However, it is important to note that a given authorization or activity may not necessarily result in destruction of critical habitat. Given the landscape-level scale of critical habitat identification, significantly more detailed analysis would be required to determine whether critical habitat was or could be destroyed as a result of these authorizations.

5. Preliminary Review of Risks

The Study reveals that there is potential for activities to occur that could result in destruction of critical habitat:

- in areas where there are no spatially-explicit legislative instruments in place to constrain any of the relevant groups of activities in the context of caribou habitat;
- in areas where spatially-explicit legislative instruments prohibit or constrain some but not all activities; or
- where discretion may be exercised to allow certain activities.

However, the risk of habitat destruction is a function of the likelihood of an activity occurring, and the consequence to critical habitat if it does occur. Therefore, areas where legislative instruments are not in place correlate only partly with the risk of critical habitat destruction (for example, there may be areas where no instrument is in place to constrain mineral exploration in part because there are no known mineral resources in that area). In addition, some decision-makers have discretion to prohibit or mitigate activities through permits and authorizations. These factors, as well as market drivers, can in some cases make it difficult to forecast time-specific and place-specific risks to critical habitat and to rate the threat of critical habitat destruction.

Different forms of landscape-scale land tenure create opportunities within which more site-specific activities could be authorized. For example, the entire area of a given tenure is not necessarily at risk of habitat destruction, nor does the existence of tenure necessarily lead to any development or other activity that would impact caribou habitat. Nonetheless, areas where tenure is in place pose a higher risk of critical habitat destruction, depending upon the activity and the governing legislation.

Coal licences and leases are in place for virtually all of the area with potential to host economically viable coal deposits. This area includes 629,137 ha within Central Group LPU boundaries, primarily within the Quintette LPU. Critical habitat outside existing coal licences and leases is considered by the Province to be at significantly lower risk of destruction from activities related to coal mining.

The geology of the area within the boundaries of the Central Group LPUs in general does not support metal and placer mining activities. There is some possibility for local-scale extraction of limestone or phosphate.

The majority of recent oil & gas development in BC concerns the extraction of shale gas and shale oil, referred to as unconventional resource plays. The Montney unconventional shale gas play overlaps approximately 147,175 ha in the northeastern part of the Quintette LPU and northern part of Narraway LPU. Therefore, development is expected here, but the timing will be dependent on the arrival of gas markets. If an export market for LNG is established in the next 5 years, then ongoing development is expected in this area over the next 25 years, but it could also occur later. Within the Central Group LPU boundaries, existing conventional resources have already been developed or are not expected to be developed further in the next 20 years. Most of the remaining area has no known hydrocarbon potential.

All lands that are contained with the Timber Harvesting Land Base (THLB) are considered feasible for timber harvest and contribute to the Allowable Annual Cut. Those areas, unless otherwise constrained, are assumed to be harvested at some point in a normal forest rotation (between 80 and 100 years). Any particular stand has a low probability of being harvested in the short term, but a high probability of being harvested in the long term. Lands that are outside the THLB are excluded from harvestable inventory either due to environmental reasons (unstable slopes, riparian reserves, etc.), or because they are not productive (low site index), or are not economic (steep slopes, low volume, etc.). There is no prohibition on harvest in these areas, but operational experience confirms they are rarely harvested for commercial forest purposes.

The main renewable energy projects in the Central Group relate to wind power, which tend to be located on higher elevation ridge lines. There are currently three projects in development that have electricity purchase agreements with BC Hydro.

Within the Central Group, recreational activities are not considered to be a widespread concern. Popular snowmobiling areas are limited in number as much of the windswept alpine habitat used by caribou is not ideal for snowmobiling. Nonetheless, snowmobiling in caribou winter range does pose some risk of disturbance, displacement, and improved access for predators. Monitoring high use areas will enable modifications to predator management or snowmobile use before impacts occur to caribou.

Particularly under the *Land Act*, tenure can be granted for multiple purposes not included in the discussion above. Within tenured areas, site-specific activities may be authorized, and therefore represent lands where the risk of critical habitat destruction may be higher.

6. Key Findings

Over the years, BC has taken a broad range of actions aimed at stabilizing population declines, addressing legacy impacts of habitat change, and reducing future risk to caribou. While recovery has been elusive to date, as summarized in "Biological Review & Study Context," no jurisdiction in Canada has yet implemented a program that has demonstrated sustained success at recovering caribou.

Preliminary disturbance mapping completed for this Study indicates that the federal recovery strategy threshold of 35% maximum disturbance for low elevation winter range and Type 1 matrix habitat has been exceeded in all three LPUs within the Central Group. Due to the level of disturbance, critical habitat in these ranges includes all habitat which is currently undisturbed as well as adjacent habitats that over time would contribute to the attainment of 65% undisturbed habitat. In high elevation ranges, critical habitat includes that which is currently undisturbed as well as adjacent habitat that would become undisturbed through restoration.

BC uses a variety of legislative instruments to manage activities that could impact caribou habitat. These instruments include regulatory and policy requirements that could benefit caribou. Discretion to authorize or prohibit specific activities exists across the land base, according to the specific provisions of the legislative instruments. The spatial area to which none of the listed legislative instruments apply represents about 13% of the high elevation caribou habitat, and about 41% of the area outside high elevation caribou habitat. Much of this area is not considered by BC to be caribou habitat. In these areas, operators must still comply with the general provisions of FRPA, the *Coal Act*, OGAA, etc., and their associated regulations. Voluntary guidelines and professional reliance may go further in mitigating the effects of the activities on caribou. There are other areas where legislative instruments constrain some but not all activities.

The risk that critical habitat would be destroyed in the absence of legislative instruments is difficult to forecast. As noted above, the risk of habitat destruction is a function of both

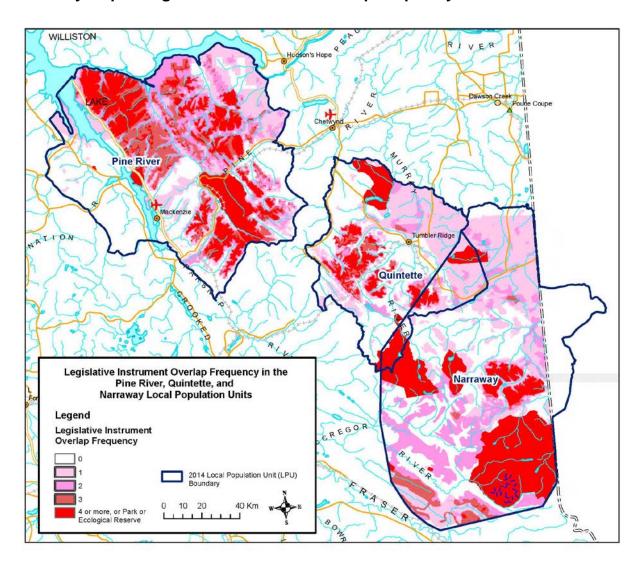
the likelihood of an activity occurring, and the consequence to critical habitat if it does occur. These factors are affected by the suitability of the land for the specific activities, market drivers, and many other factors.

The Wildlife Act prohibits the killing, harming, harassment and similar actions with respect to caribou, unless authorized under the Act or regulations. Currently, hunting of caribou within any Central Group local population unit boundaries is not authorized and capture and possession of live wildlife is not permitted unless the regional manager finds that it complies with the proper management of wildlife resources in British Columbia.

7. Anticipated next steps

The results of the Protection Study are already informing steps being taken by the federal government and British Columbia to protect and recover Southern Mountain Caribou and its critical habitat. The Province of British Columbia has announced funding for recovery of caribou in British Columbia (https://news.gov.bc.ca/releases/2017PREM0019-000223). Environment and Climate Change Canada is currently using the results of the Protection Study, along with additional information, to conduct a formal assessment, under the *Species at Risk Act*, of the protection in place for Southern Mountain Caribou in British Columbia. Though the Protection Study is now complete, the federal government and British Columbia are continuing their collaborative efforts to recover Southern Mountain Caribou.

Summary Map 1. Legislative instrument overlap frequency.



Summary Table 1. British Columbia's land management designations compared against activities

	General Activity Type / Constraints on the Activity within Designated Area				
Type of Designation (Act) % of Central Group LPU area	Forest Harvesting & Roads	Mineral exploration & mining	Oil & gas exploration & infrastructure	Renewable Energy & associated roads etc.	Recreation
Ecological Reserve (Ecological Reserve Act) 0.04%	Prohibited	Prohibited	Prohibited	Prohibited	Motorized – Prohibited
Class A Provincial Park (Park Act) 11%	Prohibited	Prohibited. Research permits associated with environmental assessments etc. may be authorized.	May only be authorized if activities do not disturb the surface of land. Research permits associated with environmental assessments etc. may be authorized.	Prohibited. Research permits associated with environmental assessments etc. may be authorized.	Constrained to various levels / specific areas depending on the park
Protected Area (Park Act, Environment and Land Use Act) 0.2%	Same as for Provincial Parks except some specific projects were authorized when areas were designated (e.g. roads, pipelines, powerlines, use of the land associated with existing mineral title)				Same as for Provincial Parks
Wildlife Habitat Area (WHA) (5%) or Ungulate Winter Range (UWR) (14%)– "no harvest" General Wildlife Measures (Forest and Range Practices Act (FRPA) / Oil and Gas Activities Act (OGAA)	No removal of forest cover or construction of roads or trails. Exemption may be granted if not practicable.	No constraints through FRPA. May be constrained as a result of an EA process; the general provisions of the Mineral Tenure Act, Mines Act, and Coal Act always apply.	If designated under OGAA, operating areas are not to be located within a WHA or UWR (regardless of whether the GWMs are "no harvest" or "conditional harvest" unless it will not have a material adverse effect on the ability of the wildlife habitat within the WHA/UWR	Same as for forest harvesting and roads.	Recreation sites and trails will not be developed. Otherwise no constraints.

	General Activity Type / Constraints on the Activity within Designated Area				
Type of Designation (Act) % of Central Group LPU area	Forest Harvesting & Roads	Mineral exploration & mining	Oil & gas exploration & infrastructure	Renewable Energy & associated roads etc.	Recreation
Wildlife Habitat Area (WHA) (1%) or Ungulate Winter Range (UWR) (18%)— "conditional harvest" General Wildlife Measures (FRPA / OGAA)	Some harvesting allowed. Constraints vary according to areaspecific general wildlife measures. Exemption may be granted if not practicable.		to provide for the survival, within the WHA/UWR, of the wildlife species for which the WHA/UWR was established. Even if not designated under OGAA, OGC considers material adverse effects on caribou within UWRs, WHAs as a matter of policy.		No constraints
FPPR Section 7 notice area (FRPA) (aspatial / undefined area)	Depends on the results and strategies specified by the licensee in their Forest Stewardship Plan. These areas are aspatial, so tracking achievement of overall government objectives amongst licensees is a challenge. Only applies to Forest Act agreement holders who are required to prepare a Forest	No constraints through FRPA. May be constrained as a result of an EA process; the general provisions of the Mineral Tenure Act, Mines Act, and Coal Act always apply.	No constraints through FRPA. The general provisions of OGAA and its regulations, especially the EPMR, always apply.	No constraints through FRPA. May be constrained as a result of an EA process; the general provisions of FRPA and the <i>Land Act</i> always apply.	No constraints

	General Activity Type / Constraints on the Activity within Designated Area				
Type of Designation (Act) % of Central Group LPU area	Forest Harvesting & Roads	Mineral exploration & mining	Oil & gas exploration & infrastructure	Renewable Energy & associated roads etc.	Recreation
	Stewardship Plan (e.g. major licencees). Exemption may be granted if not practicable.				
Old Growth Management Area (Forest and Range Practices Act (FRPA) / Oil and Gas Activities Act (OGAA) 6.4%	Depends on the results and strategies specified by the licensee in their Forest Stewardship Plan. Generally, all timber must be retained, with exceptions for minor incursions.	No constraints through FRPA. May be constrained as a result of an EA process; the general provisions of the Mineral Tenure Act, Mines Act, and Coal Act always apply.	If designated under OGAA, operating areas are not to be located within an OGMA "unless it will not have a material adverse effect on the old seral stage forest representation within that area".	No constraints through FRPA. May be constrained as a result of an EA process; the general provisions of FRPA and the <i>Land Act</i> always apply.	No constraints
	Only applies to Forest Act agreement holders who are required to prepare a Forest Stewardship Plan (e.g. major licencees). Exemption may be granted if not practicable.				
Resource Review Area (Petroleum and Natural Gas	No constraints through PNGA/ OGAA. The general provisions	No constraints through PNGA/ OGAA. May be constrained as a	No new tenures will be issued for subsurface oil and gas activities. The	No constraints through FRPA. May be constrained as a result of an EA	No constraints

	General Activity Type / Constraints on the Activity within Designated Area					
Type of Designation (Act) % of Central Group LPU area	Forest Harvesting & Roads	Mineral exploration & mining	Oil & gas exploration & infrastructure	Renewable Energy & associated roads etc.	Recreation	
Activities Act (PNGA) / Oil and Gas Activities Act (OGAA) / Environmental Protection and Management Regulation (EPMR) 21%	of FRPA always apply.	result of an EA process; the general provisions of the Mineral Tenure Act, Mines Act, and Coal Act always apply.	only activity for which tenure is required is drilling or operating a well; all other oil and gas activities may still be authorized under OGAA, in accordance with the EPMR.	process; the general provisions of FRPA and the <i>Land Act</i> always apply.		
No Registration Reserve (Mineral Tenure Act) I Coal Land Reserve (Coal Act) Cumulative 28% for MTA NRR and Coal Land Reserves	No constraints through Coal Act / Mineral Tenure Act. The general provisions of FRPA always apply.	No registration reserves: new mineral title will not be granted. Holders of mineral title granted prior to the establishment of the reserve may apply for permits under the <i>Mines Act</i> . Reserve only applies to the specified resource (e.g. mineral or placer or both). Coal land reserves: exploration and development of coal is prohibited.	No constraints through Coal Act / Mineral Tenure Act. The general provisions of OGAA and its regulations, especially the EPMR, always apply.	No constraints through Coal Act / Mineral Tenure Act. May be constrained as a result of an EA process; the general provisions of FRPA and the Land Act always apply.	No constraints	
s. 15 OIC Reserve (Land Act) 0.001%	In general, activities inconsistent with the stated purpose (e.g. of Environment, Conservation, and Recreation), and specifically with the Intent Statement for the reserve, will not be authorized. However, the Minister has discretion to authorize temporary licences for less than two years for a variety of activities, and to authorize construction of roads. The designation does not apply to activities that do not require a <i>Land Act</i> disposition for occupancy. This includes some oil & gas-related & mining-related activities. In addition, some activities may be					

	General Activity Type / Constraints on the Activity within Designated Area						
Type of Designation (Act) % of Central Group LPU area	Forest Harvesting & Roads	Mineral exploration & mining	Oil & gas exploration & infrastructure	Renewable Energy & associated roads etc.			
	consistent with the Ir	consistent with the Intent Statement but still result in destruction of critical habitat.					
s.16 Withdrawal (Land Act) 1% s. 17 Conditional Withdrawal (Land Act) 16%	As for Land Act section 15 reserves, except there is no authority to issue temporary licences. Non-commercial recreation activities are not constrained Commercial activities are the same as for other activities.						
Motor Vehicle Prohibition Regulation 5% Public Access Prohibition % unclear (Wildlife Act)	Constraints vary according to the specific regulation. At the times and locations the prohibitions are in place, it is an offence to use or operate motor vehicles or certain types of motor vehicles (i.e. snowmobile or all-terrain vehicle). There are specific exemptions to the prohibitions that apply to specified areas. These include some commercial purposes and times of year. Exemptions may also be granted by permit.						