

Fortymile Caribou Herd

Harvest Management Plan

NOVEMBER 2020



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Modification to this plan may be necessary to include new objectives or findings.





YUKON FORTY MILE CARIBOU HERD HARVEST MANAGEMENT PLAN

This plan was developed by the Fortymile Caribou Harvest Management Committee in cooperation with the Dawson District Renewable Resources Council and in consultation with the Yukon Fish and Wildlife Management Board.

Approved by:

Tr'ondëk Hwëch'in

Hähkè Roberta Joseph

Government of Yukon

Minister Pauline Frost







“This is our home and it is our responsibility to care for the rivers, animals and plants we have always relied upon for survival for the future generations.”

Tr’ondëk Hwëch’in

The Yukon’s Fortymile Caribou Herd Harvest Management Plan (“the Plan”) sets out a framework for Tr’ondëk Hwëch’in and Government of Yukon to coordinate harvest management for the Fortymile caribou herd in Yukon. The Plan builds on a wide range of efforts undertaken to support recovery of the herd after historic population lows in the 1970s and targeted recovery efforts initiated in the 1990s. The Plan has been guided by and is consistent with the objectives set out in Chapter 16 of the Tr’ondëk Hwëch’in Final Agreement and has been developed in the spirit of co-management between Tr’ondëk Hwëch’in and Government of Yukon.

The Plan is part of broader, range-wide harvest management of the Fortymile caribou, whose range spans both Yukon and Alaska. The transboundary nature of the herd requires collaboration with management agencies involved in the Alaska Fortymile Harvest Plan, namely the Fortymile Harvest Management Coalition made up of both Alaskan and Yukon groups that share harvest management responsibilities for the herd. Here in Yukon, it also requires collaboration across wildlife management authorities, including Government of Yukon, Tr’ondëk Hwëch’in, the Dawson District Renewable Resource Councils, the Yukon Fish and Wildlife Management Board,

and, potentially other Yukon First Nations, if/when the herd’s range expands into neighbouring Traditional Territories. The Yukon context of this plan is shaped by the Tr’ondëk Hwëch’in Final Agreement and the principles it identifies. The Plan is reflective of Tr’ondëk Hwëch’in’s longstanding relationship with and knowledge of the caribou, and the way of life and identity to which they are tied.

The Yukon Fortymile Caribou Harvest Management Committee includes representatives of both Tr’ondëk Hwëch’in and Government of Yukon. It is mandated to prepare a Yukon harvest management plan in relation to the Yukon harvest allocation (35% of the range-wide annual allocation). The process of drafting the Plan has involved technical staff working with the best available information gathered from both a scientific and a traditional knowledge perspective. The YHMC received input and recommendations from Tr’ondëk Hwëch’in citizens, the Dawson District Renewable Resource Council, and the Yukon Fish and Wildlife Management Board. The Plan is the culmination of this input and the recommendations from the Tr’ondëk Hwëch’in and Yukon governments. Since 2013, the Yukon Fortymile Caribou Harvest Management Committee (YHMC) has worked towards completion of the Plan.





Three main goals guide all actions stemming from the Plan. The first goal aims to promote a robust, sustainable population, maximizing herd use of habitat within the historic range of Yukon. The second identifies that a phased approach to implementing Yukon Fortymile caribou harvest is needed given the long history of forgoing harvest. The third and final goal identifies a need to increase knowledge and use of the herd through education and engagement.

The Plan outlines a harvest management approach for Yukon that considers both range-wide and Yukon harvest allocation. Mechanisms and instruments to manage harvest using an adaptive approach are recommended given the relative unpredictability and potential for rapid changes in both population size and distribution of the herd. For licensed hunters, this includes the use of Wildlife Act permits to allow for responsive decision-making which may include application of specific harvest seasons and game management subzones to address incidental moose harvest and more generally to minimize

potential conflict with subsistence harvest activities. Both parties may also recommend adjustments to the sex composition of harvest and bag limits based on herd status to address an unsustainable population trend, if appropriate. The parties agree to implementation, research and monitoring tasks that include continued engagement between parties, the collection of key information, and the development of communication and education plans. The Plan also outlines a review and revision process that will address uncertainties the parties may encounter, or should the herd expand into additional Traditional Territories that require new management approaches and adaptive management strategies.

In the spirit of co-management and honouring the rights and responsibilities of both Parties as described in the Tr'ondek Hwech'in Final Agreement, this plan strives to ensure the principle of respect is applied throughout. This means respect for each other, the process, for different ways of doing things, the enormous sacrifices made to get to where we are today,

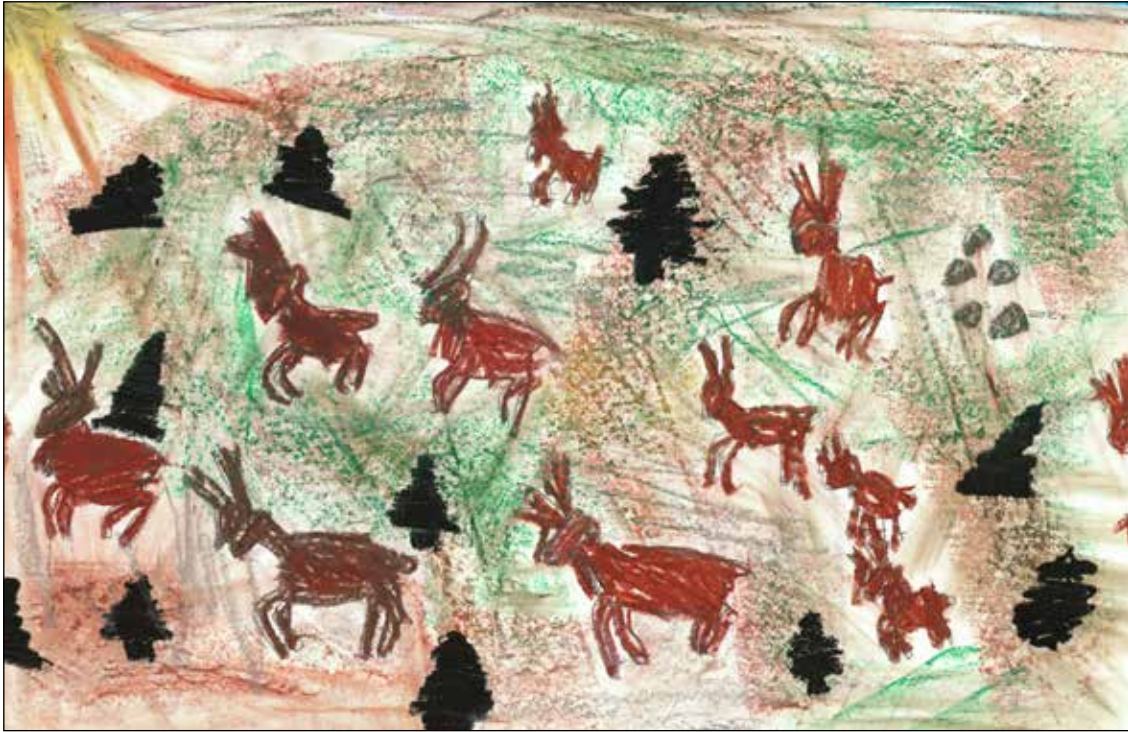


Yukon's first Fortymile Caribou Harvest Management Plan is the result of communities working together in Alaska and Yukon towards a common conservation goal. And while the outcomes are undoubtedly the result of many individuals, of which we fail to acknowledge here, it is generally understood that the late Hãhkè Steve Taylor of Tr'ondek Hwech'in served as the catalyst. Hãhkè Steve Taylor initiated an international recovery effort of the herd in the 1990's, following two decades of few caribou entering the Yukon, by reaching out to communities in Alaska to find a common recovery goal. Advisory Committees for those communities worked together with Yukoner's including Gerry Couture, and biologists Rick Farnell, Bob Hayes, and Dorothy Cooley to help realize the successful recovery of the herd back into the Yukon. Many other individuals, but in particular Alaskan biologist Craig Gardner, played critical roles in helping shepherd the increase in both the size and distribution of the herd, with an end goal of recovering biodiversity to the central Yukon.

All of the above individuals were guided by the knowledge held by the Elders that helped remind us of what was and could be again. We also wish to acknowledge the role that Youth play in the completion of this forward-looking plan. It is for the future generations that we all work collaboratively to ensure the herd's health and perseverance.



Artwork by Robert Service School Students



Anita, Grade 1-2



Farrow, Grade 3



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Figure 2. The allocation of harvest is identified through a three step process. The annual allowable harvest is set based on the identified harvest rate and total population size and Yukon-Alaska’s agreement on population management objectives. An allocation of the annual allowable harvest is then made between Yukon (35%) and Alaska (65%). Within Yukon, harvest is shared between Tr’ondëk Hwëch’in and licensed hunters, and if/when the herd expands into other Traditional Territories, those respective First Nations. 10

Figure 3. Harvest zonation for Fortymile caribou considers the distribution of the Fortymile herd but also the distribution of other herds in the area and existing regulation of those Game Management Areas for licensed hunters (identified by the thin grey lines within each zone). Detail on each zone is found in Appendix 3. 13

Figure 4. The FMCH recovered from a population low of between 5000-7000 in 1973. Recovery has been underlain by an average annual growth rate of ~4% each year including all sources of mortality (e.g., hunting in Alaska). Rivest estimates with confidence intervals have been added to minimum counts collected in 2009 and 2010 and were used to generate the 2017 estimate of 83,659 (95% CI 78,138 and 89,180) from the minimum count of 73,009 caribou (Crawford 2018). 24

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YUKON FORTYMILE CARIBOU HERD HARVEST MANAGEMENT PLAN

1.0 INTRODUCTION

The Fortymile caribou herd (FMCH) Harvest Management Plan (the Plan) provides a framework for Tr'ondëk Hwëch'in (TH) and Government of Yukon (YG) to coordinate harvest management for the FMCH in Yukon. The purposes of the plan are to support a robust, sustainable population (recognizing that natural fluctuations will occur), promote expansion of the herd's range into Yukon, and establish shared harvest opportunities at levels that do not compromise herd growth or range expansion.

The management approach outlined here aims to facilitate managed, shared, and sustainable harvest opportunities while anticipating implications for other resources and resource users. This approach requires collaboration with management agencies responsible for FMCH management in Alaska, including those agencies participating in the Alaska Fortymile Harvest Plan and those involved in range-wide management through the Fortymile Harvest Management Coalition. This collaboration is intended to reduce the risk of significant population declines and allow communities in Yukon and Alaska to enjoy the herd for their intrinsic value, in addition to consumptive and non-consumptive uses.

The need for a HMP stems from historic lows in the herd's population during the 1970-1990's (see Appendix 2), which sparked a series of recovery

actions. These actions have been largely successful in assisting the herd to grow from ~23,000 in 1995, to over 50,000 in 2009, and ~84,000 in 2017. Significant contributions to the recovery of the FMCH have been committed to by Tr'ondëk Hwëch'in, Government of Yukon, the Yukon Fish and Wildlife Management Board (YFWMB), and the Dawson District Renewable Resources Council (DDRRC). Yukon curtailed harvest of FMCH for over 25 years while working to identify and manage habitats to support the eventual return of FMCH to habitat within the Yukon range. Alaskan parties also undertook significant actions including limiting hunting opportunities, predator management, and the management of disturbances on the calving grounds. Additional efforts were undertaken in 2012 by researchers concerned about the herd's declining nutrition and potential limitations to available summer habitat. Research efforts continue by both Yukon and Alaskan agencies looking to better understand concerns about nutrition indicators and their relationship to herd status.

As the herd greatly increased use of Yukon ranges in 2013, a Memorandum of Understanding was signed between Tr'ondëk Hwëch'in and Government of Yukon, leading to the formation of the Yukon Fortymile Caribou Harvest Management Committee (YHMC). The management committee, made up of participants from both governments, was tasked

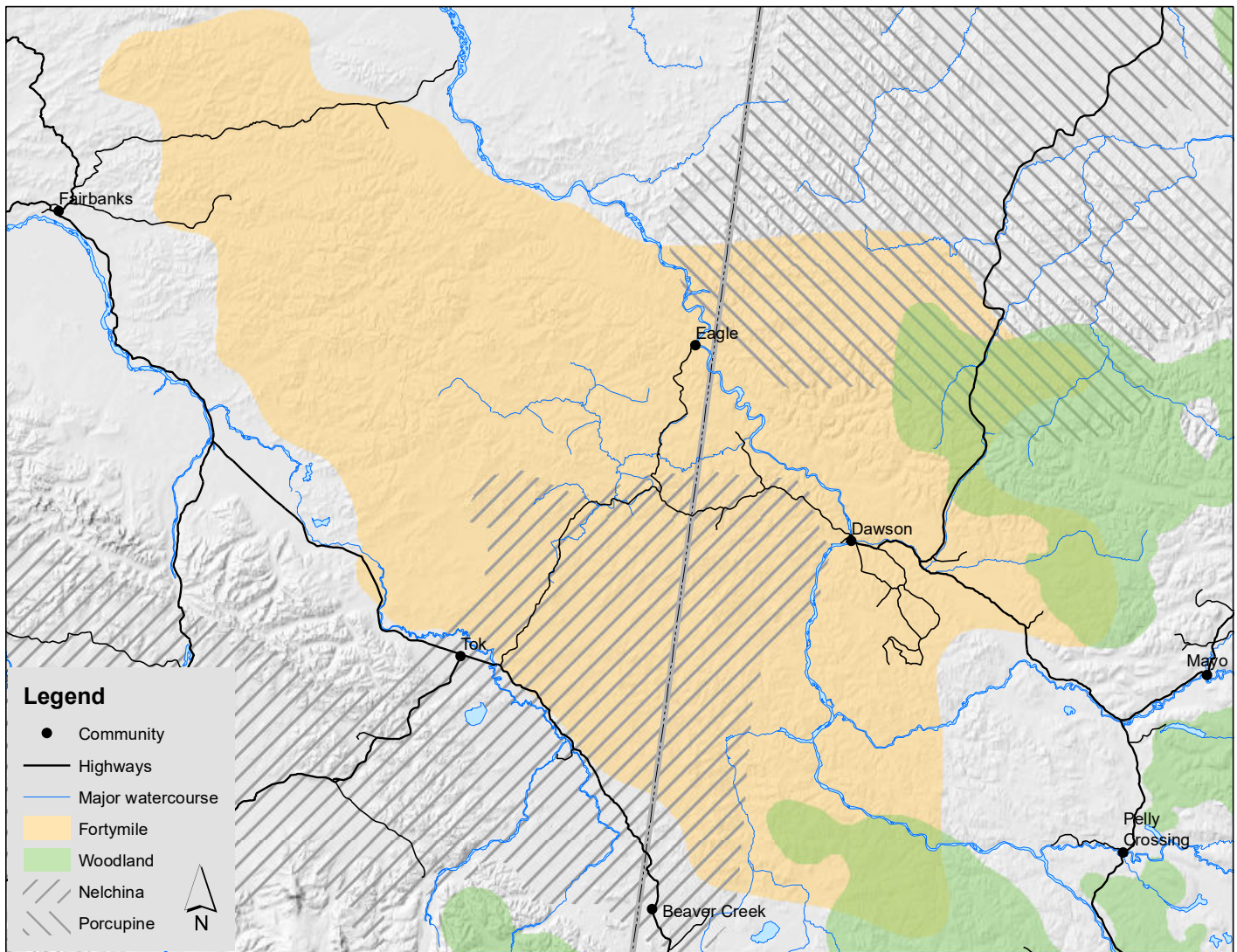


Figure 1. The Fortymile caribou herd ranges from north of Fairbanks to south of Dawson and west of Pelly Crossing. Its range overlaps with several other herds, primarily in fall and winter, including large migratory herds like the Nelchina and Porcupine caribou herds, and several Northern Mountain Woodland caribou ranges.

with preparing a Yukon harvest management plan to guide and define the Yukon harvest allocation with the return of the herd. The Terms of Reference for the YHMC was updated and signed in October 2017. The intent of the YHMC is to provide the Yukon context and a management approach that complements the range-wide agreement struck by Parties participating in the Fortymile Harvest Management Coalition. Most specifically, the mandate of the YHMC is to draft a plan that is acceptable to affected Yukon Parties with defined management goals and a workplan to govern the plan’s implementation.

The YHMC generated the Plan cooperatively by examining various harvest strategies for licensed and subsistence hunters relative to the Plan goals

and objectives. The Committee also discussed other important aspects of herd management, including:

- harvest data collection and sharing of information by parties;
- research and monitoring for effectively managing the herd; and
- education and engagement activities for promoting sustainable use and management of the herd.

In preparation for this plan, multiple engagements occurred with Tr’ondëk Hwëch’in citizens, Councils, and General Assemblies. Growth of the FMCH herd surpassed the initial conservation threshold of 65,000 caribou established through the TH General Assembly process in 2017. Surpassing

this herd size was an important first step to initiating conversations about reintroducing hunting of FMCH in Yukon. The DDRRC provided direct input into planning for a licensed hunt and the Yukon Fish and Wildlife Management Board was provided overview summaries of work accomplished. The adjacent Na-Cho Nyak Dun, Selkirk, and White River First Nations were briefed to ensure they were also aware of potential future FMCH harvesting opportunities and work being done on management of the herd. They were also engaged with early on in recovery planning stages. It is expected that the role of these First Nations in managing the herd will have greater definition if and when the herd's population

expands and their use of habitats in those Traditional Territories is more consistent.

It is important to recognize that the YHMP is being implemented following over 25 years of recovery efforts by Yukoners. The YHMC, the Parties, and the Plan respect the sacrifices made by Yukon First Nation subsistence harvesters and licensed hunters in curtailing harvest to increase the herd's population and achieve the goal of expanding the herd into the Yukon. This plan is built on the understanding that successful implementation will require patience and adaptation as we work collaboratively and respectfully in the best interests of the herd.



Spencer, Grade 4



2.0 JURISDICTIONAL CONTEXT

The FMCH herd ranges across the international boundary between Yukon and Alaska. Several organizations share management responsibility on both sides of the border. On the Alaska side, the State is represented by the Alaska Department of Fish and Game and the federal government by the Bureau of Land Management. These agencies work closely with local advisory committees and the Eastern Interior Regional Advisory Council. In Yukon, Environment Yukon, Tr'ondëk Hwëch'in, the DDRRC, and the YFWMB all contribute to aspects of harvest management. If and when the herd expands into neighbouring Yukon First Nation Traditional Territories, other First Nations will also become more involved in the herd's management.

Despite the potential difficulties of managing harvest across overlapping jurisdictions and international borders, Yukon and Alaska organizations coordinate through their participation in the Fortymile Caribou Harvest Management Coalition (the Coalition). This joint management framework is critical in ensuring range-wide management, as the Parties do not have regulatory authorities in each other's cross-border jurisdictions. By agreement among the Coalition parties, Alaskan hunters continue to be allocated 65% of the range-wide annual allowable harvest (AAH), with the remaining 35% allocated to Yukon. The actual AAH varies according to herd size and the management goal, which is discussed below at greater length.

2.1 Harvest Management Regime in Alaska

Within Alaska, the Coalition coordinates the work of local committees and responsible state and federal agencies. *The Fortymile Caribou Herd Harvest Plan 2019-2023* and subsequent revisions in future years will govern Alaska-specific recommendations on harvest quotas, bag limits, zoning, and regulatory approaches. While these recommendations do not apply to harvest in Yukon, Yukon parties (YFWMB, TH, DDRRC, YG) have participated as part of the Coalition in the planning that has led to these recommendations to strive for integrated management of the herd. Yukon's plan reflects the current herd status and agreements reached between the parties of the Coalition.

2.2 Harvest Management Regime in Yukon

In Yukon, the recent FMCH range lies primarily within Tr'ondëk Hwëch'in Traditional Territory. With the initiation of the Plan, Tr'ondëk Hwëch'in and Government of Yukon have collaborated as principle management authorities with the recognition that this management relationship is grounded in Chapter 16 of the Tr'ondëk Hwëch'in Final Agreement. This is the only Yukon Final Agreement that specifically addresses management for the Fortymile herd.¹

Government of Yukon is responsible for management of wildlife harvest by licensed hunters under the Yukon *Wildlife Act*. Tr'ondëk Hwëch'in is responsible for management of wildlife harvest by TH citizens and citizens of other Yukon First Nations

¹ Chapter 16 includes Schedule B, which required the creation of a Forty Mile Caribou Herd Working Group to recommend habitat protection measures to the Tr'ondëk Hwëch'in and the responsible Yukon minister. That working group produced Recommendations regarding habitat protection measures for the Fortymile Caribou Herd, which is currently awaiting final approval from both governments.



hunting in TH Traditional Territory (when providing consent) under the TH Final Agreement and *Tr'ondëk Hwëch'in Fish and Wildlife Act*. Licensed hunters need written consent from Tr'ondëk Hwëch'in to hunt on its Category A Settlement Land. Those hunting under the authority of consent are required to report their harvests to the First Nation.

2.3 Culture and Heritage: Caribou as a way of life

Our culture is built upon our relationship with the land and with the beings that keep us alive. We find animals. We know them and we hunt them. We feed ourselves and acquire everything we need. We build confidence in our ability to live on into the future.

We are Dënezhu-Tr'ondëk Hwëch'in

An important part of the jurisdictional context in Yukon is the TH Final Agreement that forms the basis for how we work together to conserve the herd. A key aspect of this is that the Plan recognizes and respects Yukon First Nations' longstanding relationship with the FMCH. For the Tr'ondëk Hwëch'in and many other First Nations, the FMCH is extremely important, as the two annual migrations in summer and fall provide(d) food and other resources such as

clothing and cultural implements, while supporting a healthy way of life. For thousands of years Yukon First Nations have fostered a relationship with caribou that has manifested through culture, beliefs, stories, knowledge, skills, and uses. Caribou are part of people's identity and part of their being.

The Plan recognizes concepts of stewardship, reciprocity, and connectivity as principles necessary to preserve and enhance the culture, identity and values of Yukon First Nations (Ch. 16.1.1.4), and strives to honour these concepts within the guiding principles to the Plan. Appendix 1 provides a Tr'ondëk Hwëch'in perspective on resource management.

“Long ago, we were given the duty to care for our land and our communities. The beliefs and values taught to us by our Elders showed us how to care for our world. Today, we use the word “stewardship” to describe our duties towards the land, waters, animals and fish. This duty is part of our beliefs, values and customs. It is woven into our social system, our political and economic practices, and our kinship relations

(Guide to Heritage Stewardship for Yukon First Nation Governments, 2018)”

2.4 Indigenous Knowledge

“Indigenous knowledge is embodied in stories, history, skills and practical information, and also in values, beliefs and laws. This knowledge is the result of countless generations of living on the land, passing down stories, values and traditional laws. This knowledge is dynamic and adaptive while having deep roots in the past...[Indigenous Knowledge] informs our whole life — all of our decision making processes — and is the essence of our identity as Indigenous people

(Guide to Heritage Stewardship for Yukon First Nation Governments, 2018)”

Indigenous Knowledge is essential to informing the HMP, adaptive management, and future management strategies and decisions for the FMCH. By working with the Tr’ondëk Hwëch’in Fish and Wildlife Branch and consulting with Tr’ondëk Hwëch’in citizens and Councils throughout the process, the HMP and the management approach it adopts are informed by the knowledge and understanding of the Indigenous community. Further to this, adaptive management and future monitoring will be strengthened and informed by continued sharing of knowledge from Tr’ondëk Hwëch’in and other Yukon First Nations.



Emery, Grade 5

3.0 HARVEST MANAGEMENT PRINCIPLES, GOALS AND OBJECTIVES

3.1 Harvest Management Principles:

The following principles will guide harvest management of FMCH in Yukon and implementation of the plan:

1. The Plan and its implementation recognizes and respects the mandates and authorities of Tr'ondek Hwëch'in and Government of Yukon, consistent with the TH Final Agreement and the Yukon *Wildlife Act*.
2. The Plan provides for review by the Yukon Fish and Wildlife Management Board and the Dawson District Renewable Resource Council, and ensures dissemination to the public.
3. Managers will use the best available information and respect traditional, local, and scientific knowledge.
4. Consistent with the precautionary principle, required management strategies will not be delayed even if detailed information is limited or lacking.
5. Where possible, this plan will be consistent with the *Alaska Fortymile Caribou Herd Harvest Plan*.
6. Implementation of this plan requires commitment, coordination, and collaboration among the Parties to develop and implement cost-effective and timely programs.
7. When the herd expands into other First Nation Traditional Territories, partners will engage those respective First Nations to understand harvest in those areas so that the information may be incorporated in a manner consistent with the management plan.

3.2 Goals and Objectives:

Goal 1: Promote a robust, sustainable population, maximizing herd use of habitat within the historic range of Yukon.

Objective 1.1. Where sustainable, promote and support management actions to increase the population.

Objective 1.2. Promote and support management actions that allow for continued use and expansion into the herd's historic range.

Objective 1.3. Adjust management actions if research indicates that growth is not sustainable.

Goal 2: Implement a Fortymile caribou herd harvest in Yukon using a phased approach.

Objective 2.1. Implement actions that support a transition to increasing use of Yukon's harvest allocation.

Objective 2.2. Manage the Yukon annual allowable harvest in a manner that:

- fulfills the needs of Tr'ondëk Hwëch'in subsistence hunters within Tr'ondëk Hwëch'in Traditional Territory;
- provides hunting opportunities for licensed Yukon hunters; and
- incorporates harvest by other First Nations when the herd expands into their Traditional Territories.

Objective 2.3. Ensure Yukon harvest remains within Yukon's allocation and does not contribute to any exceedance beyond the range-wide objective.

Goal 3: Increase knowledge and use of the herd through education and engagement.

Objective 3.1. Encourage respectful harvest practices and use of the Fortymile range to ensure long-term sustainability of the herd.

Objective 3.2. Promote education, awareness, and safety by advocating plan objectives through regular communication among and within the Parties and the general public.

Objective 3.3. Develop communication for the public on the goals and objectives of the plan to ensure Tr'ondëk Hwëch'in citizens, adjacent First Nations, and the public as a whole are aware of the herd, it's status, and this management plan.

Objective 3.4. Engage with other parties that may be affected through the implementation of the harvest plan (e.g., Porcupine Caribou Management Agreement user communities).



Photo by Peter Mather



4.0 YUKON HARVEST MANAGEMENT APPROACH

The YHMC will develop harvest prescriptions/scenarios that balance range-wide goals for the FMCH with the needs of Tr'ondëk Hwëch'in, Dawson City residents, and Yukon as a whole. The intent is to develop management prescriptions that create an opportunity to harvest Fortymile caribou while minimizing the negative impacts to existing land users and pressures on other wildlife populations and habitats.

In addition, the YHMC is aware that large migratory caribou herds are prone to significant fluctuations in population and distribution that require flexible approaches through responsive adaptive management. While this Plan provides bounds on how harvest will be managed, precise prescriptions may vary through time based on learning and communication between the Parties and its partners (e.g., DDRRC).

The best approach to capture this responsiveness is through Operational Plans. Operational Plans will be the product of implementation and will include elements described in this section, including range-wide and Yukon allocation, mechanisms and instruments to manage harvest, management approaches based on geographic and seasonal distribution, and harvest reporting. Appendix 9 includes the current recommended Operational Plan. Operational Plans will be reviewed annually during implementation, at which time the YHMC will decide whether to apply the same plan as the previous year or to update the plan to meet needs based on implementation review. Implementation is further described in section 5.0 and in Appendix 5.

4.1 Range-wide and Yukon Allocation

This plan recognizes that in recent years limited subsistence and licensed harvest of FMCH has occurred. This resulted from Yukon management recommendations focusing on herd growth by abstaining from harvest for twenty-five years, until the herd had increased in both population and distribution. The intention of this harvest plan is to renew the relationship between Yukon hunters and FMCH by establishing a measured and adaptive harvest management approach through incrementally increased harvest of the herd. While Yukon is not expected to harvest its entire 35% allocation during the first years of this plan (Figure 2), it acknowledges that Yukon has made commitments to the range-wide plan partners to approach this objective contingent upon herd presence in Yukon and sufficient harvest opportunities.

A formal allocation between user groups in Yukon has not been defined in this iteration of the plan as there is currently a sufficient number of caribou allocated to Yukon to meet everyone's needs. Future allocations within Yukon will be consistent with measures established for each respective First Nation (e.g., Tr'ondëk Hwëch'in Final Agreement) and by working collaboratively to meet the needs of parties wherever possible.

The Plan also recognizes the recent herd distribution is predominantly within the Tr'ondek Hwech'in Traditional Territory. The Plan is intended to ensure that within the constraints of herd availability, opportunities for FMCH are provided for Tr'ondek Hwech'in, other Yukon First Nations, and

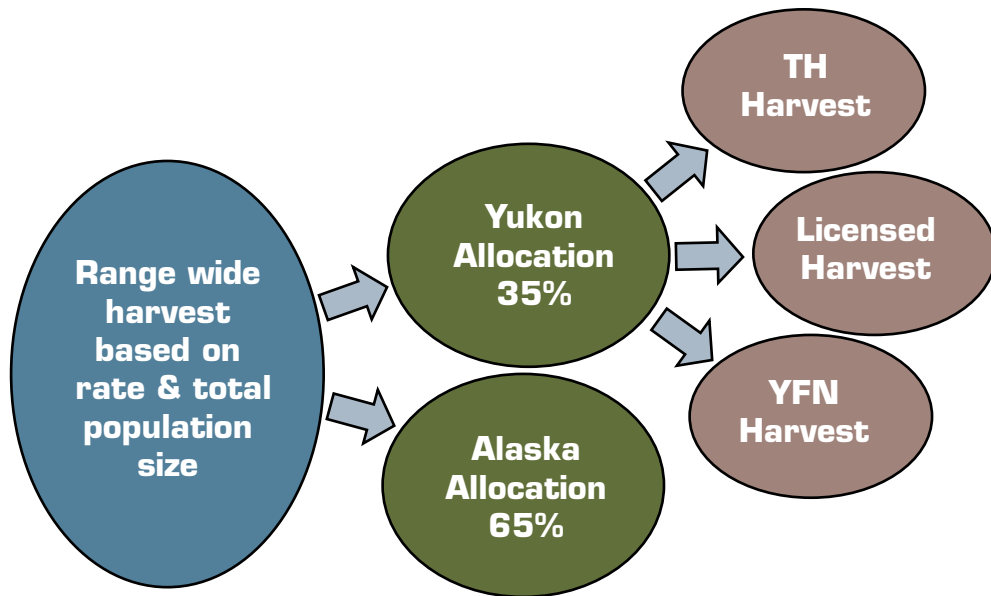


Figure 2. The allocation of harvest is identified through a three step process. The annual allowable harvest is set based on the identified harvest rate and total population size and Yukon-Alaska’s agreement on population management objectives. An allocation of the annual allowable harvest is then made between Yukon (35%) and Alaska (65%). Within Yukon, harvest is shared between Tr’ondëk Hwëch’in and licensed hunters, and if/when the herd expands into other Traditional Territories, those respective First Nations.

licensed hunters. The Plan recognizes that should Yukon harvest interest exceed Yukon’s range-wide allocation, the management approach would enable continued subsistence and licensed harvest consistent with the Tr’ondëk Hwëch’in Final Agreement. Through implementation, the Parties will determine if and when allocation be redistributed into recovery actions, should the herd decline.

4.2 Mechanisms and Instruments to Manage Harvest

Subsistence hunters have rights to harvest throughout the year and for any number and sex of caribou within the constraints of public safety and conservation. Tr’ondëk Hwëch’in primarily manages hunting activities of its citizens through education, outreach, monitoring, and government recommendations. For licensed hunters, there is a range of tools available to manage harvest through Yukon’s *Wildlife Act* and associated *Wildlife Regulations*. Hunting is managed primarily through applying legislative limitations on the number and type of wildlife that may be harvested, locations where the harvest may occur, and the timeframe for when a hunt may occur.

4.2.1 Adaptive Management: The FMCH licensed hunt is regulated through the adaptive management provisions of the Yukon Wildlife Act Regulations, as was recommended to the Government of Yukon by the Yukon Fish and Wildlife Management Board (adopted in 2015). This adaptive management approach enables management flexibility in areas (subzones), seasons (dates), and the total number of Fortymile caribou that may be harvested by licensed harvesters. While this approach is managed through Government of Yukon legislation, it is informed through recommendations from First Nation governments, Boards and Councils, stakeholder groups, and the Coalition.

4.2.2 Wildlife Act permits: Wildlife Act permits (WAP) are management instruments that provide licensed hunters with specific details that pertain to a hunting opportunity. They can enable the ability to establish a closure using various thresholds, such as when a specified number of animals have been harvested. WAP may also be used to apply any other conditions that a hunter must abide by (e.g., harvest reporting, sample submission requirements). In either case, permits can be applied to different combinations of locations and seasons to meet management

goals. WAP may be used to increase harvesting opportunities in response to redistribution of caribou within a season or for times that were not anticipated. Although licensed hunting may be managed through a general WAP, a specific FMCH WAP is encouraged to administer this hunt.

4.2.3 Outfitter Quotas: For licensed hunting, this Plan acknowledges that opportunities for outfitters may exist when the herd is present in outfitters' concessions between August and early November. Development of harvest quotas may be considered for the applicable outfitting concessions when and where herd presence becomes predictable. Any outfitter quota established for this herd should acknowledge the extreme variability in the herd's distribution and the potential for dramatic changes in herd abundance over a short time period.

4.2.4 Sex Composition of Harvest and Bag Limits: Recognizing that Yukon First Nation citizens have subsistence rights to harvest either bulls or cows, Tr'ondëk Hwëch'in advises citizens to harvest bulls where feasible and limits other Yukon First Nations from harvesting cows within their Traditional Territory. During high herd growth or when the herd is under habitat-related stress, and during seasons when bulls may not be palatable (e.g., October when bulls are rutting and in poor condition), Tr'ondëk Hwëch'in may consider harvesting either bulls or cows.

As part of the adaptive management approach for FMCH in Yukon and in meeting the Yukon harvest allocation, other approaches may be needed to support harvest and population management objectives. Other considerations for licensed harvest may include the option to harvest either sex or an increase to the bag limit for individual hunters (i.e., where more than a single bull may be harvested in one or either season). Safeguards or limitations may also be adopted, such as thresholds for harvesting cows when there is a clear understanding of the implications of cow harvest. Enabling these types of provisions (that may or may not be applied or used) would allow for an adaptive approach to respond to an unsustainable herd population size or trajectory. It would also provide for a means of achieving a harvest objective without increasing hunter density (i.e.,

fewer hunters on the land to meet the management objective).

The Plan enables provision(s) be established to allow bag limits to be adjusted, similar to Porcupine caribou harvest, by recommendation of the Minister. First Nation harvest may well achieve a great proportion of the harvest management objectives in time. In the interim however, an adaptive management approach for Fortymile caribou in Yukon, including a flexible bag limit, will enable Yukon to achieve its management commitment while not increasing pressure on the land in doing so.

4.3 Management Approach Based on Geographic and Seasonal Distribution of FMCH

The intent of this plan is to provide for an approach that will gradually transition into harvesting and making greater use of FMCH in Yukon, working towards achieving full use of Yukon's allocation. As a newly established hunting opportunity in Yukon, this plan attempts to initiate a hunt through a "learn through doing" approach. Adaptive harvest strategies will provide annual review of herd distribution, movement timing, and other land uses. This will help us address unanticipated consequences for existing First Nation hunting and gather activities (particularly west of Dawson).

The YHMC has considered a wide range of input in establishing recommended hunting opportunities, specifically those pertaining to licensed hunting. Seasonal use of the land for harvesting and gathering by TH has been the primary consideration shaping harvest management prescriptions. These measures are designed to support a range of activities including the following:

- 1) Important and substantial periods and timing windows where Tr'ondëk Hwëch'in harvesters are able to reconnect with harvest traditions for FMCH that are in periods when the caribou are likely to be present and when access across the river is viable.
- 2) Stewardship of moose within areas where FMCH are likely to be present.
- 3) Manage harvest such that community members have safe areas and times for other traditional pursuits (e.g., berry picking, medicinal collection and trapping).

- 4) Manage based on a measured approach, learning by doing, and not overwhelming the landscape with hunters.

The broad approaches to recommended harvest seasons and recommended harvest zones are described here with further details provided in Appendix 3.

4.3.1 Recommended Harvest Seasons

Seasonally-based objectives are intended to align opportunities for the administration of harvest with the presence of caribou and management of other caribou herds or other wildlife species that may be impacted through hunting Fortymile caribou. For licensed hunters, these considerations are managed through specific ‘Game Management Areas’ (GMAs) and are targeted where FMCH can occur. The Fortymile caribou adaptive provisions discussed above are applied to these specific GMAs. Seasons for licensed harvesters are normally established in advance of the season and often run for a fixed time period. Alternatively, or in addition to, the licensed harvest season, under adaptive provisions, quotas may be established by which a season may end once a harvest objective (e.g., number of caribou, number of cows, number of bulls) has been achieved. TH and other First Nations subsistence harvest may occur year-round as described in the TH Final Agreement.

Moving forward, Table 1 captures the primary seasons and activities anticipated within each.

4.3.2 Recommended Harvest Zoning

As there is uncertainty annually in the distribution of caribou across the various parts of the historic FMCH range, the recommended approach to addressing a range of technical and jurisdictional considerations is through a zoned approach. Zoning allows similar management areas to be grouped and regulated together to provide clarity and consistency. Scenarios can be outlined and options reviewed that contemplate approaches based on the current and anticipated distribution of FMCH.

Licensed harvest in Yukon is managed through the use and implementation of boundaries defined by a Game Management Area (GMA). Regulations are enacted that consider the specific caribou herd(s) that may be present in each GMA, with consideration for the management objectives of each herd. We anticipate the FMCH may, in some seasons, overlap with the Porcupine caribou herd (PCH), the Hart River herd, the Clear Creek herd, and the Klaza herd. The FMCH may also overlap with the Nelchina caribou herd on winter range and in some winters may be completely mixed. Given that each GMA representing a specific caribou herd has a management approach that is based on herd size, management objectives,

Table 1. Caribou and harvest seasons” (please update this in the Table listing as per above)

<p>May 1 - June 21: Calving and Post-Calving</p> <ul style="list-style-type: none"> • Cows on or near calving ground in Alaska • Subsistence harvest • Closed to licensed hunting 	<p>September 10 - November 30: Fall</p> <ul style="list-style-type: none"> • Subsistence harvest • Special educational permits for school groups or TH Cultural Camps • Licensed moose harvest (to October 31) <ul style="list-style-type: none"> ○ Closed to licensed caribou harvest ○ Closed moose harvest after October 31
<p>June 22 - July 31: Summer movement</p> <ul style="list-style-type: none"> • Subsistence harvest including: <ul style="list-style-type: none"> ○ Community hunt ○ Culture camps • Closed to licensed hunting 	<p>December 1 - March 31: Late Winter</p> <ul style="list-style-type: none"> • Subsistence harvest • Licensed harvest season: <ul style="list-style-type: none"> ○ Registration hunt ○ or, Threshold hunt
<p>August 1 - September 9: Summer</p> <ul style="list-style-type: none"> • Bulls in prime condition • Subsistence harvest • Licensed harvest season: <ul style="list-style-type: none"> ○ Registration hunt with special consideration for youth if possible 	<p>April 1 - April 30: Spring Migration</p> <ul style="list-style-type: none"> • Subsistence harvest • Closed to licensed hunting

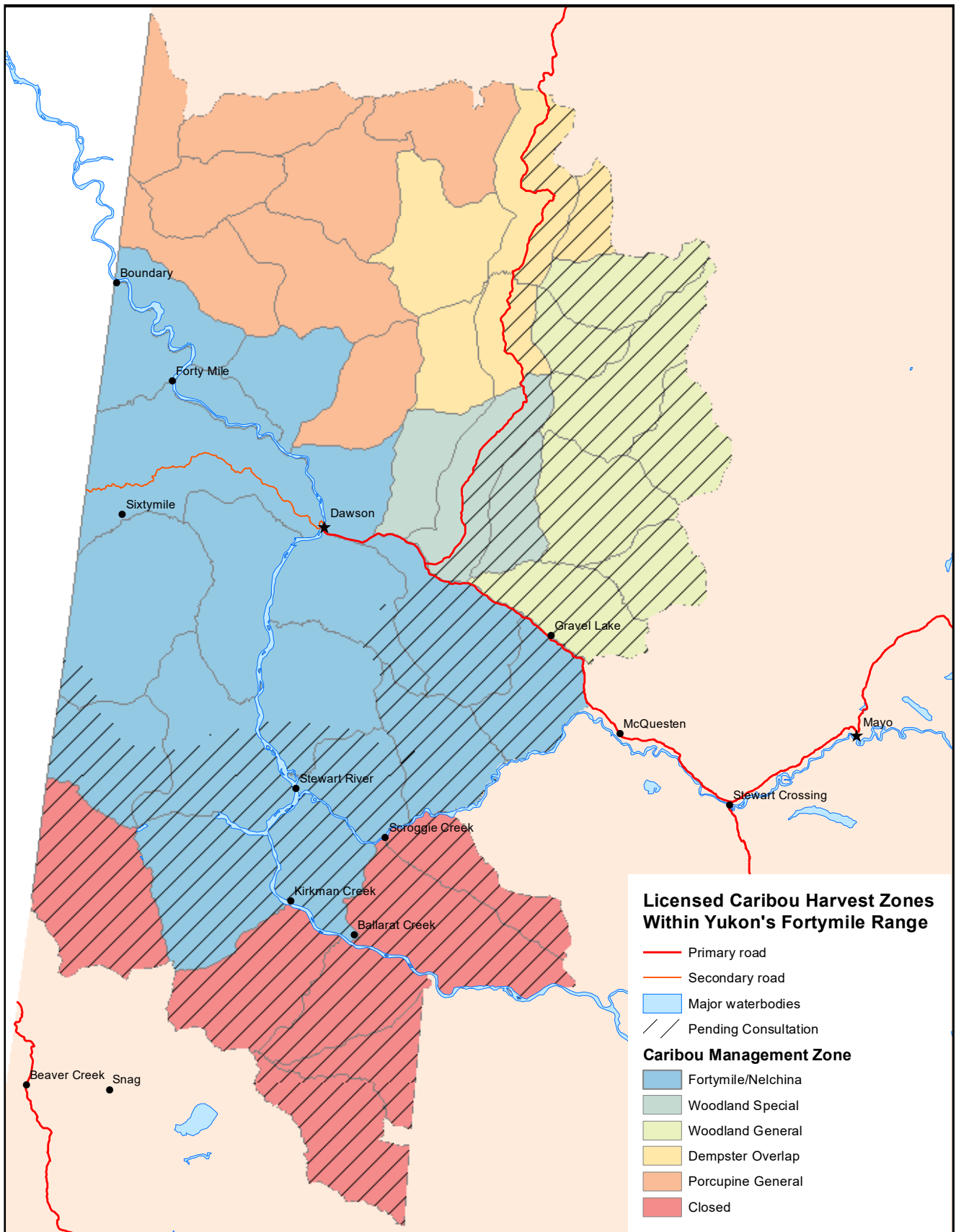


Figure 3. Harvest zonation for Fortymile caribou considers the distribution of the Fortymile herd but also the distribution of other herds in the area and existing regulation of those Game Management Areas for licensed hunters (identified by the thin grey lines within each zone). Detail on each zone is found in Appendix 3.

and seasonal distributions, it is important to integrate FMCH harvest management in a way that accounts for multiple management objectives within a single GMA. For some areas, GMA regulations may not need to be amended, while in others emergency provisions may be required to ensure an overharvest of a herd does not occur. For GMAs where targeted harvest of FMCH is desired, the adaptive provisions that came into force in 2015 for the FMCH herd may be applied (see above for greater detail).

Generally, where large herds sufficiently overlap with smaller herds (e.g., PCH overlapping the Hart River herd), it is anticipated that hunters will harvest caribou from the larger herd and not the smaller herd based on the availability of caribou from each. This approach sufficiently reduces the risk of a smaller herd being overharvested and provides opportunity for harvest while ensuring conservation of the

smaller, more vulnerable herds. Where smaller herds have a strong potential to be present in an area with harvest potential, and where that harvest would push the smaller herd above sustainable limits, sufficient monitoring is necessary to ensure that the risk truly is low. Emergency closures may also be put in effect to safeguard the smaller and more vulnerable herds.

4.4 Harvest Reporting

With the introduction of a harvest comes the responsibility of gathering and sharing information on harvest from all harvesters. The key to implementing the best combination of adaptive management tools is to ensure all relevant information is available to managers. Each Party commits to ensuring this information is available in a timely manner and as described in Appendix 5.



Chase, Grade 6



5.0 PLAN IMPLEMENTATION

A multi-year Implementation Plan is provided in Appendix 5. This plan will be updated on an as-needed basis.

Annual technical meetings will review the following, but are not limited to: progress on implementation of the plan, current status and health indices of the herd, harvest level, Alaskan activities, herd monitoring, caribou movements

and implications of new distributions (including determining if adjacent First Nations need to become involved), communication and educational efforts, and human dimensions research. Parties are expected to conduct their own communications for distribution amongst harvesters for whom their mandate applies.



Aimee, Grade 6



6.0 COMMUNICATION AND EDUCATION

Goal 3 and its four associated objectives focus on the importance of communication, including outreach in the community and education of youth and young adults. Through the implementation of this plan, the YHMC, together with the DDRRC, will draft a communication plan for Fortymile caribou in Yukon. The objective of the plan will be to develop products to increase awareness of the herd, its history, the cultural connection of Tr'ondëk Hwëch'in to the

herd, and hunter responsibilities, rights, and ethics. These products will guide engagement with schools and hunters, conservation of habitat, identification of opportunities for hunters to participate in research, engagement with knowledgeable elders with past and present experiences with the herd, and best management practices of industry, recreationists and harvesters.



Maya, Grade 5

7.0 PLAN REVIEW AND REVISION

The Parties together with the DDRRC will formally review the Plan in 2025 to determine whether an update is required. Specifically, Parties will review the Plan to ensure the goals and objectives remain relevant, to ensure that implementation has occurred, and to identify any gaps that need to be addressed. Based on that review, a revision of the Plan may be identified, of the existing plan may continue to guide management actions if it is considered sufficiently applicable to management challenges and opportunities that may be present and reasonably anticipated.

As large migratory herds of caribou can prove unpredictable and are subject to dramatic changes

in both population and distribution, the Parties may, through mutual agreement, agree to modify or refocus the Plan to address new information or management challenges or opportunities at any time during its implementation. In addition, the Parties acknowledge that this plan is intended to guide decisions related to Fortymile caribou primarily in the Tr'ondëk Hwëch'in Traditional Territory. However, recognizing that the herd may become available on a regular basis in other Traditional Territories, the Parties acknowledge that the Plan may need to be reconsidered to address new, unforeseen eventualities, and may also require that additional Parties be included in the YHMC as needed.



April, Grade 5



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APPENDIX 1: INDIGENOUS RESOURCE MANAGEMENT – TR'ONDĒK HWĒCH'IN PERSPECTIVE

“Our value system forms the foundation for our daily code of conduct. This code, or set of known social expectations and behaviors is called Tr'ëhudè in our Hän language”

Core beliefs about the natural world, including caribou, are central to the strategies Tr'ondëk Hwëch'in and other First Nations employ in resource management. A recent research project in partnership with Tr'ondëk Hwëch'in (Heffner 2018) defined several major concepts that help contextualize Tr'ondëk Hwëch'in relationship with caribou and management strategies utilized by the community. In this context *management* can be understood as a dynamic system, a sum of actions, or human-environment relationships that affect a community's goal and objectives. It is important to note that the terms “management” and “resource” do not translate well into an Indigenous perspective, while concepts of stewardship, respect, and maintaining relationships are more reflective of an Indigenous view.

The following concepts are included to help guide objectives, goals, and approaches to future implementation of the Fortymile Caribou Harvest Management Plan. Further research, communications, or engagement initiatives may be required to elaborate upon these concepts and to incorporate them into a co-management approach for the Fortymile caribou herd.

Key Concepts Governing Indigenous Resource Management

1) Several core beliefs within Tr'ondëk Hwëch'in worldview guide interactions with the natural world, including caribou, and underpin the management system:

- 1. Nature is sacred and provided as a gift:** Within Tr'ondëk Hwëch'in worldview, the world around us is a gift which humans have an obligation to care for, respect, and serve as stewards for.
- 2. All things are connected:** Within Tr'ondëk Hwëch'in worldview, all things are connected, in ways that humans cannot fully understand. Humans are one small part of an interconnected web where physical and spiritual worlds, sentient and non-sentient beings, and humans and animals all interact. It is the responsibility of humans to care for and interact with the natural world with this connection in mind.

3. Humans need to know their place in the universe:

Within Tr'ondëk Hwëch'in worldview, all things are equal and have equal importance. Each animal community has a purpose in the environment, as do individual members within each animal community. It is important for humans to be aware of their place in the universe. It is considered disrespectful to speak of, or make assumptions about, things one does not or cannot understand. People's thoughts and actions are powerful, and care must be taken with words, thoughts, and actions because these can have cascading impacts that we may not fully realize or understand.

4. Nature has an intrinsic balance: Within Tr'ondëk Hwëch'in worldview, it is important to be aware that humans cannot fully understand nature's own balance. Interfering with natural process can disrupt this intrinsic balance and is considered disrespectful and can have serious consequences. As such, people should behave and control their actions based on the knowledge that their actions will have consequences; these could be physical, as in when we disturb the land, or they could be relational, as in when we think arrogantly about caribou and lose our luck. This is *Dä'dlé*, the unwritten laws within the ethical framework that guides Tr'ondëk Hwëch'in to live in a good way.

It is important to note that these are not the only beliefs that exist within Tr'ondëk Hwëch'in worldview. Moreover, these are very brief and simplistic descriptions of a complex belief system.

2) The relationship between humans and caribou is social and spiritual, and is based on respect and reciprocity.

Tr'ondëk Hwëch'in understand and know that the natural world guides their interactions with it. Core beliefs inform the relationship people have with caribou, including the sacredness of the land, the interconnection of all things, the importance of humility or knowing your place, and the balance within nature and across connected relationships in nature, and important values of respect and reciprocity.

Caribou are considered friends, relatives, and teachers – they help when people are in need by giving themselves to people and they teach people how to interact with them. A display of respect is essential to maintain good relations between animals and humans, and is a relationship established and agreed to long ago. Respect, and the actions that show it, are part of building social capital with caribou – it was something agreed to and is something that we have to continually do or invest in.

These beliefs are central to the strategies Tr'ondëk Hwëch'in employs in natural resource management and are central to how knowledge is acquired.

3) Traditional resource management strategies are rooted in worldview and guided by knowledge acquired and maintained through observation, the sharing of stories, and engagement with hunting practices on the land.

“...we, use caribou long time ago, and then, I go around...find lots of caribou, maybe, take so much, like a store, take so much, leave it, and then follow caribou around, spring, they come back here, June, so you don't just rotate [caribou also rotate], and that's how they manage our land.”

TH Elder

Traditional ecological knowledge is often gained through interactions and observations with the natural world over time. How Tr'ondëk Hwëch'in relates to and understands the natural world (balance, reciprocity, interconnectivity, etc.) governs management strategies, often which favour maintenance of natural order or natural processes, without interference in natural processes like reproduction and migration. Harvesting strategies that respect functional relationships and connections are considered important to the maintenance of healthy and sustainable populations and are practiced





and supported throughout the community. Fairly recognized and accepted strategies within the Tr'ondëk Hwëch'in community include:

- Maintenance of important predator/prey relationships that help the herd;
 - Sustainability of the herd requires extensive and complex knowledge of herd dynamics, migration patterns, and the interplay between the herd and humans and the herd and other predators.
- Hunting restrictions on animals that contribute to natural processes (reproduction/migration);
 - Key strategies include restricting harvest on caribou leaders, or trainers in the herd, and restricted harvest of animals that contribute significantly to the gene pool (i.e., big bulls and big fish).
- Selecting the right animal for your needs; and
 - Animals that provide good meat and hide without interfering in the ability of the population to maintain its own gene pool are preferred.

- Shifting harvest areas and monitoring.
 - Knowledge of temporal cycles, such as longer caribou cycles, is another example of how resource management is tied to natural cycles observed within and across animal populations and in animal behavior.

4) Social systems that regulate and monitor resource use are entrenched in traditional laws and reinforce the relationship between people and animals.

“your own grandparents, what they passed down to you and what they pass down to you is how to be the best human you can be. And this brought these memories too, to be a good hunter you had to be the best human you could be. And you had to have this close association with those animals that you’re catching.”

TH Elder

Very simplistically, Indigenous laws reinforce the connection people have to the animals they harvest and the reciprocal nature of the exchange between the hunter and the animal, while also reinforcing the management strategies for sustainable resources.

Principles of respectful conduct while harvesting is an example of this, and it is believed that breaking these rules will bring bad luck to the hunter, preventing them from future hunting success. It can even bring about the complete disappearance of animals. This belief is tied to the conviction that offending animals breaks the mutual agreement and the animals will no longer show themselves or agree to be hunted. Respect is central to *Dä'òlé*. Examples of showing respect include thanking the animals once they are harvested, keeping a kill site clean, or facing the head away from the body when butchering the caribou. Some other examples would be exercising impulse control or waiting for the right time or the right animal for your family needs. This includes patience and focus. It is also important to think positive and humble thoughts and not say you're going to hunt a caribou, as that would be arrogant and also takes agency away from the animal. Rather, you're "going to look around."

Indigenous resource management must be understood as a multi-species, systems approach to maintaining relationships (i.e., with the herd, within the herd, and between caribou and other species). Maintenance of good relations between Tr'ondëk Hwëch'in and caribou (and animals and the natural world in general) is reinforced consistently in all interactions with the natural world and in traditional laws regarding caribou. These (so called) rules-of-use or the social institutions of management define responsibilities of the community and to the caribou that are timeless.

Summary

Indigenous resource management strategies are important to consider within the larger harvest management planning framework and can help guide the Parties through implementation of the plan. Important strategies include maintenance of essential predator/prey relationships that help the herd, hunting restrictions for animals that contribute to natural processes like reproduction or migration, selecting the right animal for your needs, and shifting harvest areas or your resource focus. These strategies provide valuable information that will continue to guide implementation of the Plan.)



Jeremy, Grade 3



APPENDIX 2: HISTORIC POPULATION AND RANGE

Historically, the Fortymile caribou herd (FMCH) ranged widely across both Yukon and Alaska. The FMCH was one of the most important resources in the Tr'ondëk Hwëch'in Traditional Territory. Hän (Tr'ondëk Hwëch'in) and other Indigenous peoples hunted the herd during summer and fall migrations, using hides for clothing and freezing or drying the meat. Elder Mary McLeod noted that families from the Dawson and Fortymile area used to hunt using caribou fences built near Chicken, Alaska. Once corralled, they could be efficiently speared, shot with arrows, or entangled in snares (Midnight Arts 2003).

With the arrival of Europeans and the introduction of firearms, hunting practices began to change for Indigenous hunters, as hunting now became more of an individual rather than a group activity. During and after the Gold Rush of 1898, some Hän (Tr'ondëk Hwëch'in) people became suppliers of caribou meat to the hungry miners of Dawson City. Market hunting allowed families to adapt economically to the influx of new people, but the stampeders also hunted intensively, reducing availability for the Tr'ondëk Hwëch'in people who relied on the herd to support themselves. At this time, Hähkè Isaac protested vehemently about how non-native hunters were overhunting the herd, making it harder for First Nations people to earn a living (Midnight Arts 2003).

The FMCH has likely always experienced major fluctuations in population and distribution.

In the 1920's the herd is estimated to have reached a population high of between 260,000 to 568,000 animals (Figure 4; Murie 1935, Boertje et al. 2010). During this period, it's believed the FMCH ranged from Fairbanks, Alaska to Lake Laberge, Yukon, covering an area of approximately 220,000 square kilometers (Murie 1935, MacDonald and Cooley 2004). The herd used Yukon habitats throughout the entire year, including important summer ranges near Matson Creek, the Dawson Range, Selwyn Dome, and to a lesser degree the Ogilvie Range (MacDonald and Cooley 2004). Due to the limited availability of rigorous census data, considerable uncertainty remains about the exact size of the herd during its peak. However, it is clear that the herd had many tens of thousands more caribou than it does today. How frequently this herd reached this population size and what population lows were in the 1800's and before is much less certain.

In the decade following the herd's peak, there was a significant population decline to as few as 10,000 to 20,000 caribou (Skoog 1956). Although the causes for this decline remain speculative, harvest during this period was likely high, with market hunting occurring in both Alaska and Yukon. The population began to recover over the following two decades, peaking at a size of at least 50,000 caribou in the 1950's (Valkenburg *et al.* 1994). More recent estimates based on experience with counting the herd at this size has identified that perhaps this number was larger, possibly as many as 70-80,000 caribou. By

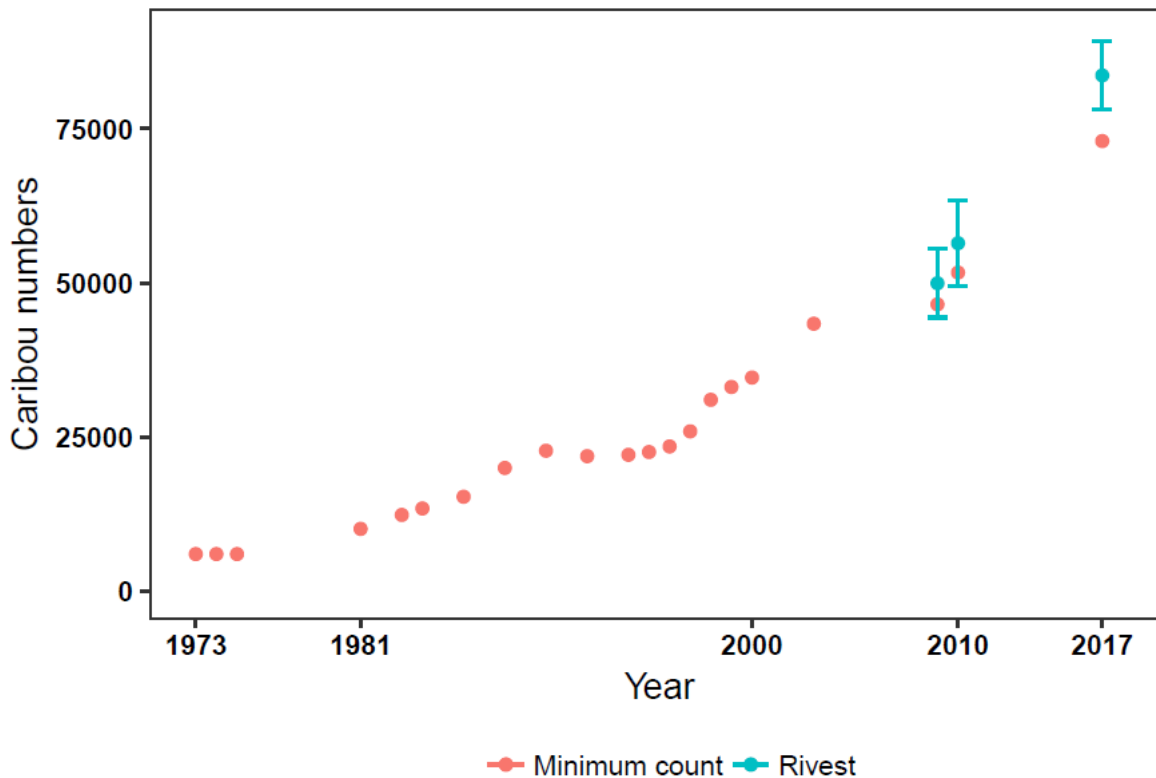


Figure 4. The FMCH recovered from a population low of between 5000-7000 in 1973. Recovery has been underlain by an average annual growth rate of ~4% each year including all sources of mortality (e.g., hunting in Alaska). Rivest estimates with confidence intervals have been added to minimum counts collected in 2009 and 2010 and were used to generate the 2017 estimate of 83,659 (95% CI 78,138 and 89,180) from the minimum count of 73,009 caribou (Crawford 2018).

this time, access into the mountains to the west of Dawson had improved and harvest had shifted from the Yukon River to areas adjacent to the Top of the World Highway (1957-58). This population peak was short-lived and was followed by a declining trend through to 1973, when the herd reached a historic low of between 5,740 to 8,610 caribou (Valkenburg *et al.* 1994). Note that through this period, field methods improved and the population parameters gathered by biologists were much less speculative than in previous eras.

Several factors likely contributed to this most recent decline in the mid-1970s, including an initial decline caused by inclement environmental conditions and predation, and then compounded by poor harvest management (Davis *et al.* 1978, Valkenburg and Davis 1989). As the herd size declined, range size also shrank, and the herd disappeared from once-important ranges.

The herd size slowly increased between the 1973 low to 22,766 caribou in 1991. This population

rebound was linked to a change in harvest practices in Alaska, coupled with reduced predator populations and favourable environmental conditions. During this period, very few caribou crossed into Yukon, although a small harvest did occur immediately adjacent to the Alaska border.

Recovery Effort and Current Status

Herd growth stagnated in the early 1990s at around 22,000 caribou (Fortymile Caribou Planning Team 1995). Concerned by the low numbers of FMCH in Yukon, Tr’ondëk Hwëch’in contacted local Alaskan Fish and Game Advisory Committees in 1993 and expressed interest in recovering the herd to former ranges. This outreach led to the creation of an international recovery team that included multiple governments, committees/boards, and user groups from both sides of the border. In 1995, the team finalized a comprehensive recovery plan that focused on herd growth as a mechanism to promote the



reoccupation of historic range in Alaska and Yukon. The Plan reduced the annual harvest quota to 150 bulls, suggested habitat management considerations, focused on public outreach, and started intensive non-lethal predator management. In Yukon, licensed harvest was closed in 1996 and Tr'ondëk Hwëch'in began a voluntary no-harvest program to support herd recovery shortly thereafter. In 2000, the Tr'ondëk Hwëch'in General Assembly passed a resolution that identified a target of ~50,000 animals in the herd to indicate a level of herd health where considerations for harvesting could begin.

Between 1995 and 2002, caribou numbers increased to 43,375, and in fall 2002 the FMCH began the first major movement into Yukon since the 1960s. Many tens of thousands of caribou crossed the border, and many moved across the Yukon River downstream of Dawson. In Alaska, the FMCH harvest quota increased to 950 in 2001 and remained at 850 for the next seven years following the completion of harvest management planning there. Harvest

management plans continued to focus on bull harvest while allowing up to 25 percent cow harvest.

Tr'ondëk Hwëch'in, Yukon Fish and Wildlife Management Board, and Environment Yukon have each participated in Alaskan planning processes to date. The Dawson District Renewable Resource Council has also been present at most meetings. Between 2002 and 2012, FMCH range in Yukon remained largely restricted to habitats along the north shore of the Yukon River downstream of Dawson, Top of the World Highway, Sixty Mile River, and Ladue River. Harvest in Yukon during this period was exclusive to Tr'ondëk Hwëch'in citizens and remained extremely low, averaging about four caribou per year.

In 2010 the Alaska Department of Fish and Game collected data that identified that the herd had grown to at least 51,675 caribou (ADF&G 2010) and was likely closer to 56,000. The total harvest quota increased to 1,000 caribou per year and maintained the cap on cow harvest at 25 percent of the total quota.

In the fall of 2013, the FMCH made an eruptive movement into Yukon, occupying many habitats last used during previous population peaks in the 1920-1930s or 1950-1960s. Since 2013, caribou have regularly used these habitats most fall and winters, and have initiated relatively consistent movements into the Forty- and Sixty Mile drainages during the summer period. Based on historical documentation (MacDonald and Cooley 2004), it is believed that caribou could still reoccupy other habitats in Yukon, including previous summer ranges in the Dawson Range and Selwyn Dome regions where they currently winter in some years.

The 2010 population survey estimate of at least 52,000 caribou confirmed that the herd had reached the original target number of animals set by GA Resolution #2000-03-12-05. However, the TH sentiment was clear that this number needed to be reviewed and reassessed. TH citizen meetings discussed the need to further support conservation efforts to continue growing the herd. The Tr'ondëk Hwëch'in Elders' Council also voiced the need to continue conservation efforts until a time when herd growth resulted in a reoccupation of their historic range, making their come-back visible on the landscape. In 2016, the TH General Assembly discussed and reviewed the target population as a healthy herd indicator. At that time, in support of comments brought forward by citizens and Elders, the GA decided to pass a resolution (GA #2016-08-28-03) that revised the target population goal of 50,000 animals. The resolution stated that a revised population goal of 65,000 "will be identified in the Fortymile Caribou Herd Management Plan and define when discussion between Tr'ondëk Hwëch'in and the

Government of Yukon will be initiated concerning licensed harvesting opportunities and management strategies for a licensed harvest".

Although the observed average annual herd growth has been ~4%, much slower than originally projected (Fortymile Caribou Planning Team 1995), and the population remains lower than previous estimates of maximum herd size, Alaskan managers have raised questions about the desirability of continued herd growth because of concerns that the herd may be overgrazing its summer range (Boertje et al. 2017). As part of the Alaska Harvest Management Coalition planning efforts for the period 2019-2023, Alaska and Yukon management agencies began to consider whether the herd is being affected by range conditions. They considered whether management actions may be needed to manage overgrazing or whether caribou use of new ranges in Yukon and Alaska would adequately mitigate any effects of continued herd growth on habitat.

Distribution Relative to Other Herds

Historically the FMCH may have overlapped with the current ranges of several caribou herds in Yukon, including the Nelchina, Chisana, Burwash, Aishihik, Klaza, Pelly, Tatchun, Ethel Lake, Clear Creek, Hart River, and Porcupine caribou herds. As of 2020, the herd has recently overlapped with portions of the Porcupine and Nelchina herd ranges (other large migratory herds), and the Hart River, Clear Creek and Klaza herd ranges (Northern Mountain Woodland herds). Figure 1 of the Plan identifies the approximate distributions of these herds.



APPENDIX 3: ZONING CONSIDERATIONS AND RECOMMENDATIONS

Fortymile and Nelchina Managed Harvest Zone (blue)

Considerations

- This zone includes the Top of the World Highway, the Yukon River downriver and upriver of Dawson, and the Goldfields. These areas are the principal habitats of the FMCH and will be the location where the bulk of harvest will occur.
- This zone has significant access via multiple highways, mining roads and trails, and navigable rivers and creeks. Currently car and truck access is limited to the snow-free periods, except on the Klondike Highway and portions of Hunker and Bonanza roads. Portions of the Top of the World Highway are usually open in March. ATV/ UTV use will/ does increase ability for harvesters to access more remote and off-road areas.
- Snowmobile access in winter is via major waterways and existing roadways. Significant trapping activity occurs immediately adjacent to these access routes but generally not on them.
- Overlap with other caribou herds is limited to winter and the Nelchina herd, principally in the Forty Mile and Sixty Mile watersheds.
- Incidental moose harvest is considered a significant confounding factor in this area.
- Most of this area falls principally within TH Traditional Territory, although a portion of the Goldfields is in overlap with Na-Cho Nyak Dun Traditional Territory and a small section of GMA 313 overlaps with Selkirk First Nation near Balarat Creek.

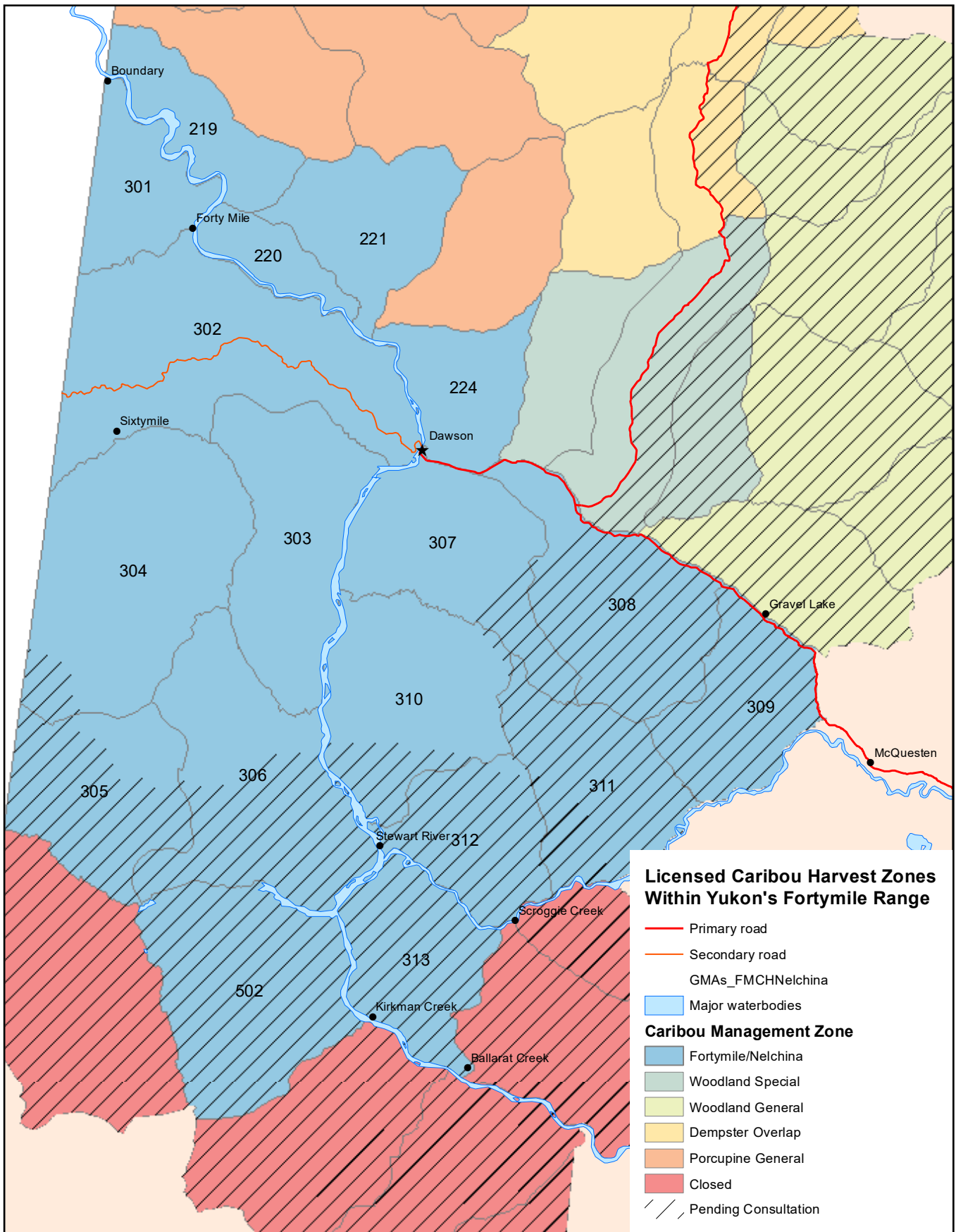
- This is the core subsistence harvest and traditional pursuits use area for Tr’ondëk Hwëch’in.
- Keys concerns heard by Tr’ondëk Hwëch’in throughout planning include: increased hunting pressure on the Top of the World Highway, incidental moose harvest, use of particular access roads, frequency of road use, use of off-road vehicles, potential impacts to subsistence harvesters (hunters, berry pickers etc.), and the basic need for TH harvesters to re-connect with the herd and re-establish harvesting practices.
- Outfitter concessions fall within this zone on the north side of the Yukon River, downstream of Dawson.

Recommendations

The plan recommends a split hunt that includes a late summer hunt and a winter hunt in this zone. The allocation between TH (and other First Nations if applicable) and licensed hunters will be determined annually during plan implementation based on the TH Final Agreement.

Late Summer

- Registration hunt
- August 1 – September 9
- 20-40 registration permits may be issued, starting at 20 and increasing upon review of prior years’ activities and the success of the plan to manage key concerns
- Up to 10 youth registration permits may also be issued



- Recommended period for permits is 5 days, but this should be reviewed as the plan progresses in its implementation
- The total allocation available for licensed hunters will be divided between summer and winter hunts. Total quota for the summer hunt will be reviewed annually and will reflect the lesser of the following:
 - The total number of permits available for the season; or,
 - 75% of the total licensed annual allocation available to licensed hunters.
- Registration permits will be available at Yukon Conservation Officer Services District Offices throughout the territory
- Reporting windows are to be used, with a recommended period for reporting and biological submissions starting at 72 hours
- Consider that registration permits not be issued consecutively to the same individual depending on demand and experience

The objectives of the summer hunt are to:

- encourage harvest of caribou in prime condition
- allow caribou to occupy summer ranges prior to licensed harvest being initiated
- avoid or reduce additional moose harvest
- address anticipated crowding issues and potential conflict with, or impacts to, subsistence harvesting activities in the limited summer range of the herd (i.e., mostly near the Alaska border)
- provide a high quality hunt, with adequate harvest opportunity, with a special emphasis on youth opportunities
- reduce licensed harvest pressure on smaller herds
- provide subsistence-only caribou harvest opportunities for Tr'ondëk Hwëch'in during June and July, and again during the fall period, while supporting harvest by other Yukon First Nations as appropriate.

Winter Hunt

- Threshold or registration style hunt
- December 1 to March 31
- If there is a registration hunt:
 - Total of 25-50 permits may be issued
 - Recommended period for permits is 10 days, but this should be reviewed as the plan progresses in its implementation
 - Registration permits will be available at Yukon Conservation Officer Services District Offices throughout the territory
 - Consider that hunt permits not be issued consecutively to the same individual depending on demand and experience
- The total allocation available for licensed hunters will be divided between summer and winter hunts. Total quota for the winter hunt will be reviewed annually and will reflect:
 - the lesser of 25% of the total allocation available to licensed hunters in addition to any allocation remaining from the late summer hunt or,
 - if limitations are not in effect, the total number of permits available for the hunt
- Reporting windows are to be used and is recommended to start at 72 hours for reporting and biological submissions
- Close monitoring for Nelchina, Fortymile, and potentially Porcupine caribou may be necessary to assign harvest where hunting and herd distributions overlap

The objectives of the winter hunt are to:

- allow for additional harvest of the herd;
- initiate harvest activities once caribou are on their winter ranges
- allow trappers and people on the land to harvest
- provide additional opportunity for licensed hunters in the northern Yukon late in the season when most other seasons are closed and
- allow for harvest activities in March when highway vehicles can access the Top of the World Highway.

Porcupine General Regulations / Overlap with Fortymile (peach)

Considerations

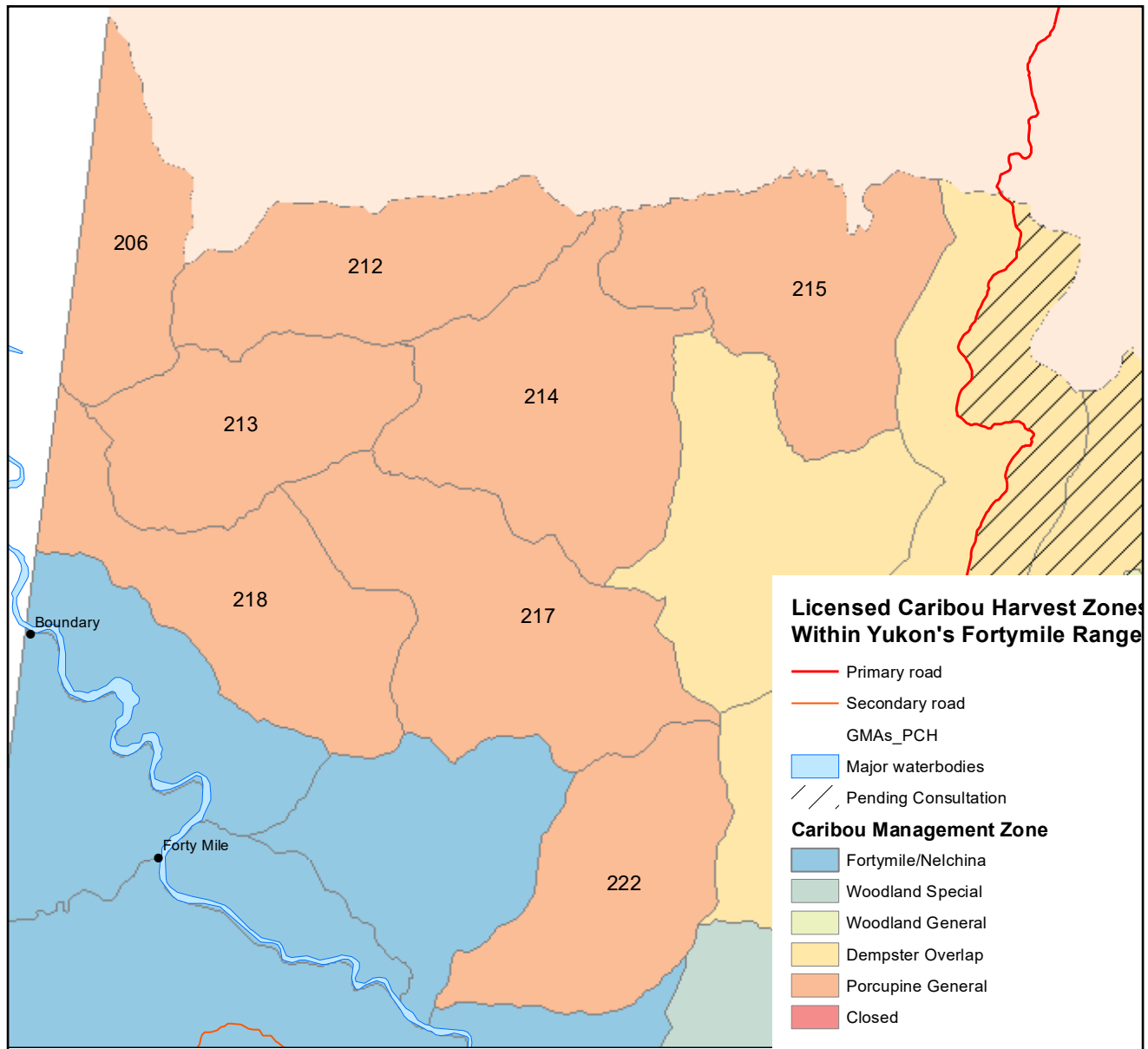
- This area is remote, with limited harvest by First Nation and resident hunters.
- The area is currently zoned for Porcupine caribou regulations for licensed hunters, meaning a 2 bull bag limit and a season that runs from August 1-January 31 under the laws of General Application.
- There is potential overlap with Porcupine caribou in this zone during years when both herds are present, and to a lesser degree with Hart River caribou along the eastern edges of the zone. Hart River caribou tend to leave this zone in winter.
- With the exception of GMA 222, FMCH have not used this area extensively in recent years, however the area holds habitat for most seasons that the herd could use in the future.
- There is some potential for accessible winter harvest in GMA 222, although the area remains challenging to navigate, so harvest will likely be minimal.
- All GMAs in this area are overlapped by outfitter concessions.

Recommendations

1. No adjustment to regulations are required, as harvest of Fortymile caribou in this area will likely be minimal.
2. Monitor harvest in GMA 222 and determine if a future regulation change is needed to better manage harvest in this GMA.



Isis, Grade 6



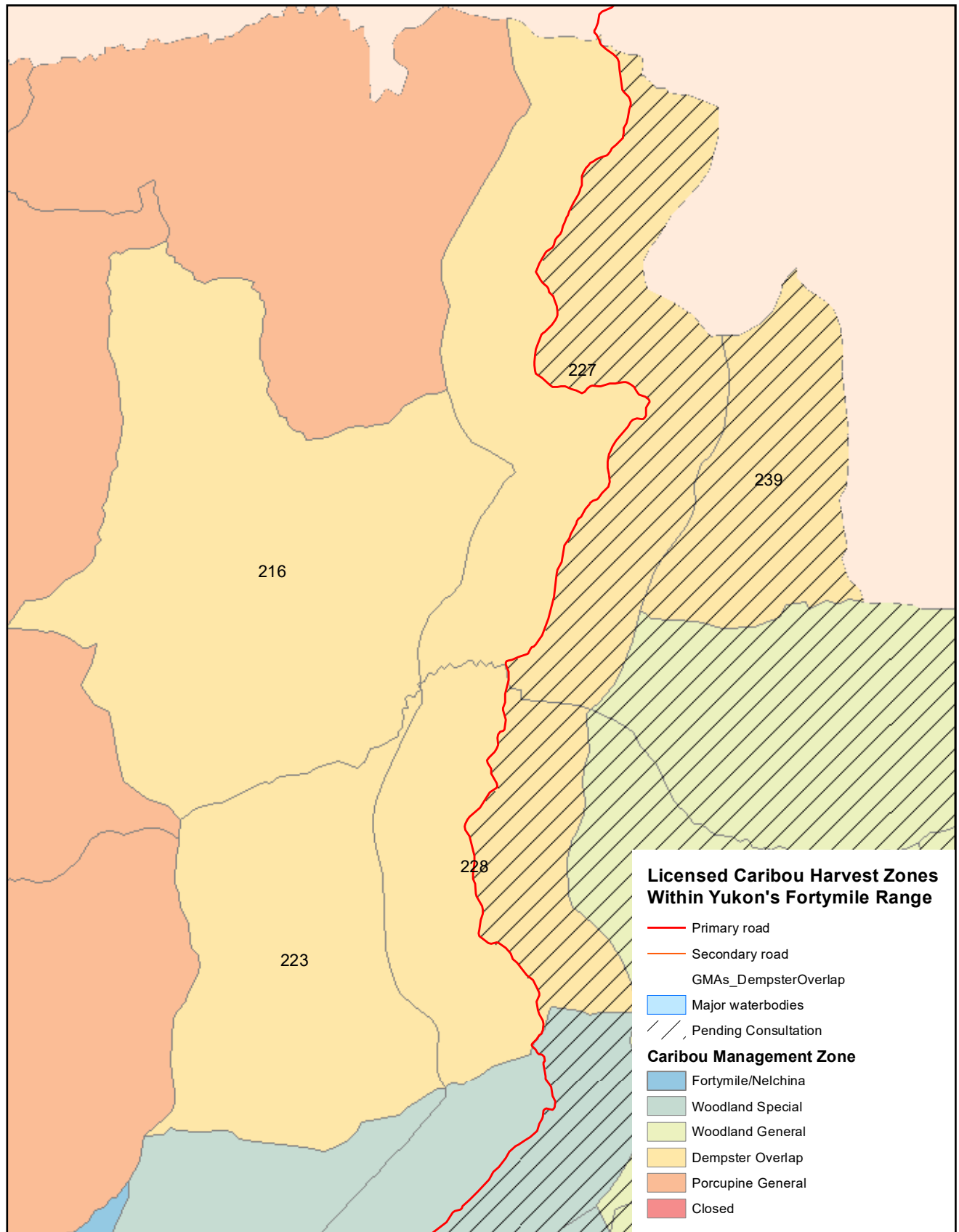
DEMPSTER OVERLAP REGULATIONS: HART, PORCUPINE AND FORTY MILE HERDS (beige)

Considerations:

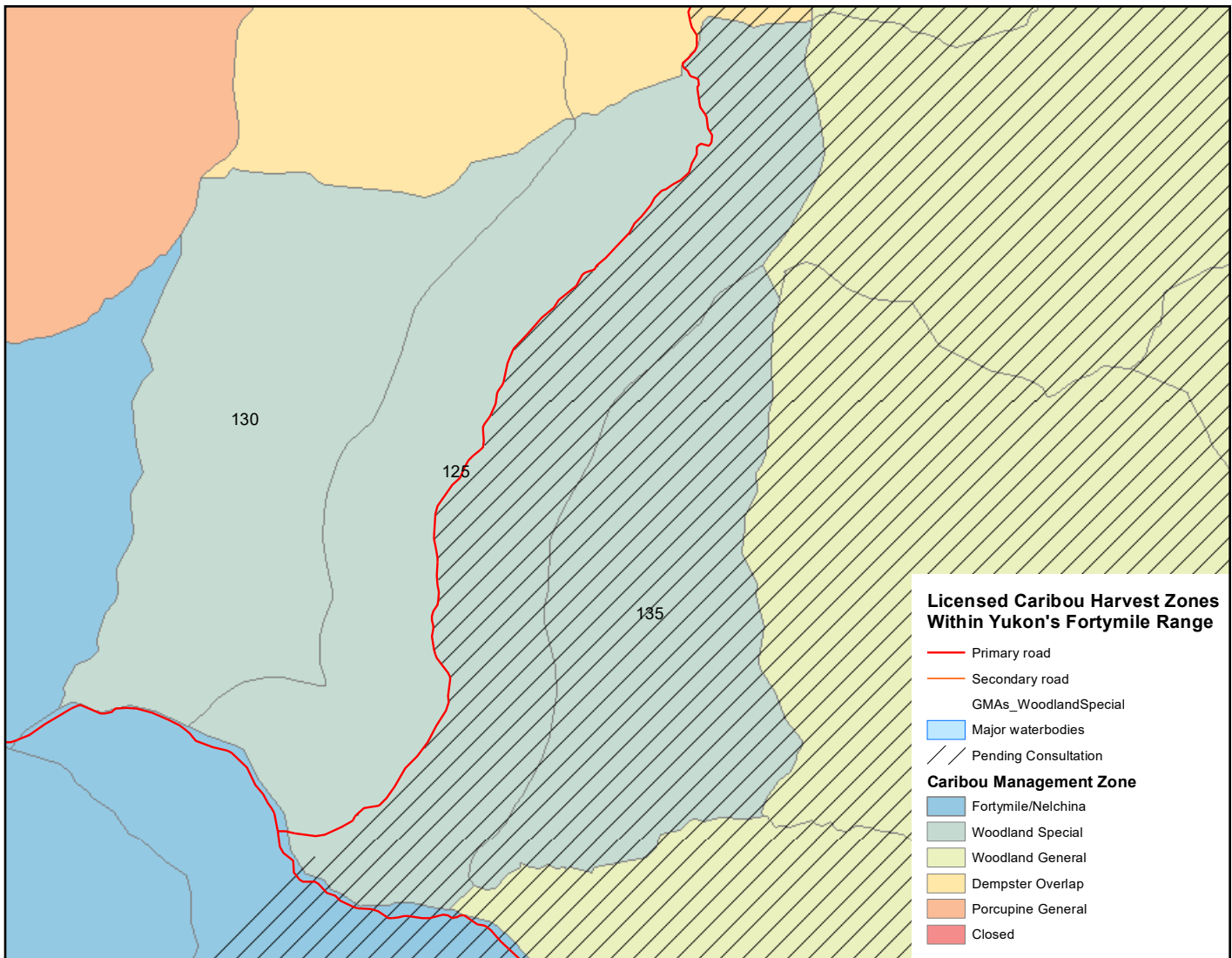
- Currently zoned for woodland caribou regulations from August 1-October 31 (1 bull bag limit under the laws of General Application). If sufficient numbers of Porcupine caribou become available in late fall or winter, GMAs change to barren-ground caribou regulations, which extends the season to January 31 and increases the bag limit to 2 bulls.
- Year-round habitat for the Hart River herd with occasional overlap by both Porcupine and Fortymile caribou herds from September through April. Currently the FMCH has only used this area in significant numbers once in recent years. A possibility exists that Fortymile caribou could venture into these habitats over the summer period in the future based on historical movements and existing habitat.
- Area has good access via the Dempster Highway and Hart River Road. In winter, snowmobile access from the Dempster Highway is generally good.
- The *Porcupine Caribou Management Agreement* (PCMA) provides rights for Native Users and the 'Native User Agreement' (NUA) provides further guidance regarding the harvest of PCH wherever that herd is in Canada, provided it does not create conservation risk for other herds. The Native User Agreement was signed off by 5 signatory parties in 2019 and further clarifies the relationship amongst the Porcupine Caribou User Communities. Harvest planning for this area should refer to the NUA for further considerations found within that agreement.
- When large numbers of caribou are present, this area can see extremely high harvest rates and is popular with all user groups.
- All GMAs in this area are overlapped by outfitter concessions.

Recommendations

1. Manage under existing regulations, however close monitoring of herd distributions and harvest will be required to ensure quotas are not exceeded and that the much smaller Hart River herd is not impacted incidentally.
2. Use Emergency Closure regulations with at least 2 days of public advertisement to close the area if needed. Ensure all parties that may be impacted are notified.
3. At this time, do not extend the caribou season in this area if large numbers of FMCH are present in the absence of a sufficient number of PCH.
4. When mixing of herds occurs and harvest is underway, assign harvest of each herd based on population size and collar mixing ratios.
5. Work with members of the PCMA to address mixing of PCH and FMCH to identify where a significant risk to exceeding Yukon's harvest quota exists, as this would be the basis for defining a conservation risk, per J7 of the PCMA.



Woodland Special Regulations and Fortymile Overlap (light blue)



Considerations:

- Currently zoned for woodland caribou regulations from August 1 - October 31 (1 bull bag limit under the laws of General Application).
- Woodland caribou distribution (Hart River herd) in these GMAs are limited to May - November.
- The FMCH has had some use of this area in large numbers recently, though historically were prevalent here in winter.
- Area has good access via the Klondike and Dempster Highways, North Fork Road, Dawson Fire Break, and various historical access trails off of each of these. In winter, snowmobile access from the Dempster Highway is generally good.

- If large numbers of caribou are present, this area could see low to moderate harvest rates.
- All GMAs in this area are overlapped by outfitter concessions.

Recommendations

1. Manage under existing regulations, however close monitoring of harvest will be required to ensure overall FMCH quotas are not exceeded.
2. Use Emergency Closure regulations with at least 2 days of public advertisement to close the area if needed. Ensure all parties that may be impacted are notified.
3. If FMCH enter the area during winter in sufficient numbers, extend the caribou season to align with adjacent GMA's identified for FMCH harvest.



Enrique, Grade 2



Tara, Grade 3

Woodland General Regulations and Fortymile Overlap (light beige)

Considerations:

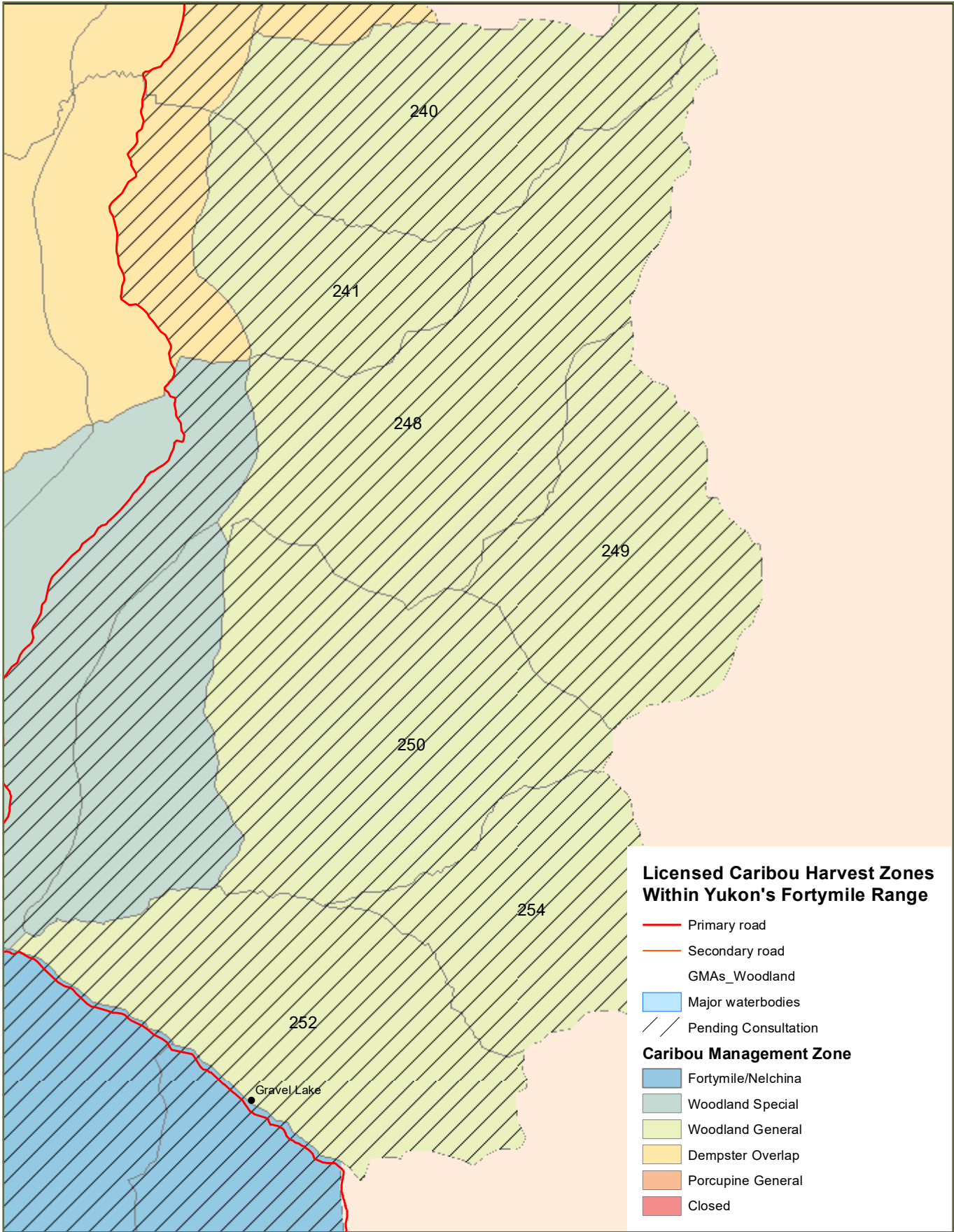
- Currently zoned for woodland caribou regulations from August 1-October 31 (1 bull bag limit under the laws of General Application).
- Woodland caribou distribution (Hart River and Clear Creek herds) are found in these GMAs year-round.
- The FMCH has had limited use of this area in large numbers to date, though historically were prevalent here in winter.
- Area has some good access via the Hart River Road, Clear Creek mining access roads, and along multiple access points from the Klondike Highway. In winter, snowmobile access is generally good.
- If large numbers of caribou are present, this area could see low to moderate harvest rates.
- All GMAs in this area are overlapped by outfitter concessions.

Recommendations

1. Manage under existing regulations, however close monitoring of harvest will be required to ensure overall FMCH quotas are not exceeded.
2. Use Emergency Closure regulations with at least 2 days of public advertisement to close the area if needed. Ensure all parties that may be impacted are notified.
3. At this time, do not extend caribou season to permit additional winter harvest to ensure woodland herds are not impacted and to allow the FMCH to reoccupy these ranges.



Ella, Grade 4



Closed GMAs for caribou harvest

Considerations:

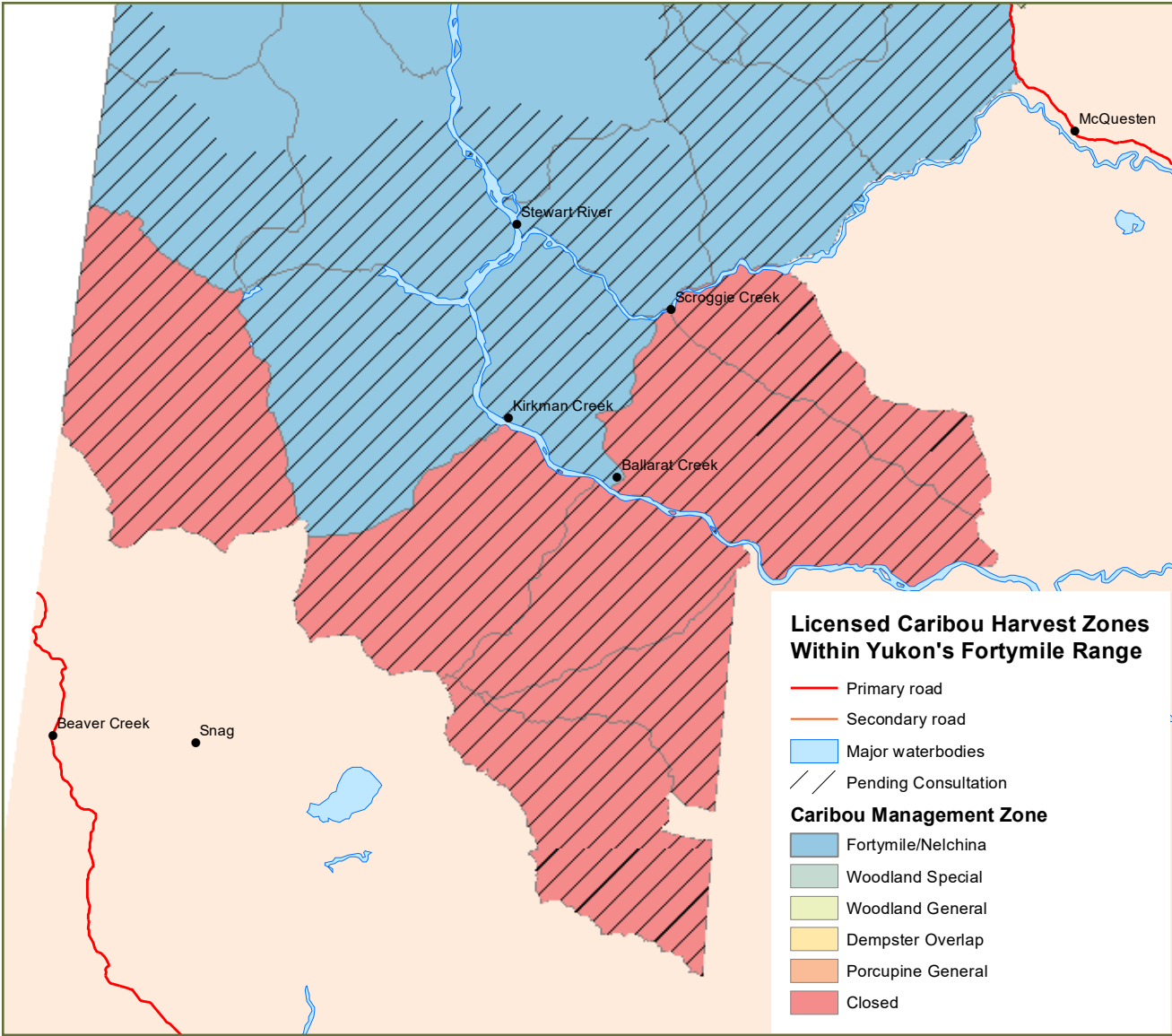
- Currently closed to caribou harvest.
- This area overlaps with the Klaza herd.
- Historically very significant summer and winter ranges for the FMCH. Have seen significant use of habitats in recent fall and winters.
- Anticipate greater use if herd expands into this area including GMAs to the southeast that are not currently highlighted (note those GMAs are currently zoned for a limited-entry woodland caribou harvest).
- Anticipate significant industrial activity in this area associated with quartz mining projects and placer mining.
- Access to this area is principally along major river systems.
- Some GMAs in this zone are overlapped by outfitter concessions.

Recommendations

1. Keep this area closed at this time until herd use of the area is better understood and the herd has become more established.
2. Careful consideration of industrial impacts in combination with harvest in this region are warranted.



Eric, Grade 1-2





APPENDIX 4: RESEARCH AND MONITORING

Harvest Data

The collection and compilation of harvest data for the herd is a key aspect of its management and essential to ensure to ensure Yukon does not exceed its allocation of caribou each year. TH and YG continue to collect harvest data and have committed to bringing annual summary data to a harvest meeting, as discussed in the implementation section of this plan. The data presented will include the number and sex of animals harvested, and the month and Game Management Subzone of caribou kills. It is expected that as adjacent First Nations engage in FMCH management, they too will collect and share harvest data.

Yukon harvest data will be rolled up (to include both First Nation and licensed harvest data) and shared annually with Alaska. Yukon should ensure harvest data is available by the end of May each year. Alaska harvest data will be available to Yukon at the conclusion of their winter hunt each year.

Maintain Collars on the Herd.

Collars will be used to assess the degree of overlap between herds and will be critical to hunt management, assigning harvested animals to a specific herd when there is overlap, and in meeting various obligations related to reporting harvest by herd (e.g., the Porcupine Caribou Harvest Management Plan). Collars are also the basis from which almost all population and distribution monitoring occurs. A sufficient sample of collars should be maintained on the herd for a population

estimate each year (i.e., ~100 collars), but will at times increase should management questions require additional effort.

Population Monitoring to Meet Goals and Objectives

Population monitoring efforts are led by the Alaska Department of Fish and Game with assistance from Environment Yukon. Tr'ondëk Hwëch'in will contribute where possible, including providing traditional knowledge and observations during subsistence harvesting efforts. Efforts are made each year to collect a post-calving aggregation population photo count and subsequent estimation, fall rut sex composition survey, cow and 3 year old cow parturition ratios, and post-calf survival estimates. In addition, Environment Yukon and Alaska Department of Fish and Game have both developed population models that are useful for examining harvest levels to meet population goals and assess herd growth in the absence of a photo count. Environment Yukon's role in population monitoring is critical and will likely grow as the herd expands and becomes present in the Yukon over a greater period of the year. Collaborative efforts to acquire this data are likely the only ways to consistently and robustly collect data on a large transboundary migratory herd like the FMCH. The Plan recommends Yukon continue to play a supporting role as needed to facilitate this data collection and, where/when the herd is present in Yukon, take a leading role in field operations.

Habitat Work

As identified by Boertje et al., (2017), summer habitat limitations are a significant concern for the herd and may be a determining factor for how large the FMCH may get. Development and planned developments of historical summer ranges raise further questions about management objectives for the herd that speak to optimal herd size. As a result, a multi-partner collaboration between the University of Montana, Alaska Bureau of Land Management, Environment Yukon, and Alaska Department of Fish & Game was initiated in 2017 and is currently underway. This work is seeking to address numerous questions including diet, available seasonal habitats, impacts of existing disturbances, and habitat limitations of the range. Renewals of this plan should carefully consider this information. Ultimately, parties will be responsible for implementing the results of this work with respect to habitat quality and availability that may have population management consequences.

Upon completion of this work, Government of Yukon will be required to track habitat use and loss or removal of habitats. This may include the establishment of habitat monitoring stations throughout the range if deemed necessary by researchers.

In addition, the Yukon Environmental and Socio-economic Assessment Board (YESAB) has recently identified that Yukon Government track cumulative effects on the herd and report back to ensure significant adverse effects do not occur from the culmination of individual projects in the range. This will require ongoing habitat modelling assessment and tracking the footprint of projects by Energy, Mines and Resources, as committed to during Environmental and Socio-economic Assessments. TH, YG, YESAB, and the DDRRC should meet on an as-needed basis to discuss implementation of this work and the results of monitoring.

Genetic Analysis of Adjacent Central Yukon Herds

Due to the overlapping nature of the FMCH range with other herds in the region, it is anticipated that harvest of overlapping herds will occur. To accurately assign harvested caribou to the correct

herd, we will use collar-based estimates of caribou in an area combined with harvest data. This will ensure that harvest numbers can be assigned to the appropriate herd after the harvest has occurred and will help wildlife managers maintain an accurate count on individual herds, along with the associated harvest rate of each herd. It is recommended that a secondary approach be used to identify how accurate this approach is.

At present, Environment Yukon is examining different genetic-based approaches to differentiate harvested caribou from different herds. In 2018-2019 assignment by genetic microsatellites was considered, however this approach found that assignment would be difficult or even impossible between herds that overlap the Fortymile caribou range in Yukon. Other methods such as single nucleotide polymorphisms (SNPs) are currently being investigated and, if appropriate, may prove useful in testing our assumptions regarding collar assignment. Genetic samples of harvested caribou will be required to test this approach, although considerable samples are stored at the Environment Yukon office in Dawson at this time.

Moose Population Management and Monitoring

An increase in moose harvest along the Top of the World Highway was a major concern for TH and the community of Dawson as a whole. To assist with opening the harvest on FMCH, Environment Yukon completed a population survey of habitats north of the White River, west of the Yukon, and south of the mouth of the Fortymile River in 2017. As a result, harvest monitoring through Environment Yukon's mandatory reporting system, in collaboration with First Nation harvest data collections, will allow governments to assess whether sustainable harvest limits are being approached and whether there is potential for the moose population to be negatively impacted. Continued collection of moose harvest data should be sufficient at this time. The Plan recommends that a future population survey be completed, should habitat change sufficiently, should moose harvest increase to sustainable limits or beyond, or approximately by 2027, whichever comes first.



Predation Monitoring

This plan recognizes that any wolf-related management actions will be guided by the *Yukon Wolf Conservation and Management Plan* (2012) and management of grizzly bears will be guided by *A Conservation Plan for Grizzly Bears* (*Ursus arctos*) in Yukon (2019).

Health Monitoring

Health monitoring is an excellent approach to understanding the condition of the herd and can provide evidence of the herd reaching carrying capacity. This plan recommends that parties work to collect information on body condition, parasites, deformities, and contaminants when possible. Serology work will also be completed from captured and harvested caribou to allow for screening of antibodies and the presence of specific diseases that are regularly monitored in caribou, as well as emerging issues (e.g., chronic wasting or *Mycoplasma ovipneumoniae*). Biologists will work to collect samples where practical in Yukon and Alaska during significant harvest periods and may consider targeted sampling when required. Health monitoring programs will be conducted in collaboration and with participants from TH. Environment Yukon will also work with First Nation governments to develop a program that collects voluntary harvest samples from First Nation hunters, similar to the existing PCH community-based monitoring completed in Yukon and NWT.

Human Use Monitoring

A primary concern of this plan was managing human use in the region as a result of the Fortymile summer hunt. YG and TH will work together to collect data on traffic volumes in the region, focusing on the summer hunt area (i.e., Top of the World Highway and connecting roads). This data will be used to inform the efficacy of the mitigations developed in this plan and to fine-tune how this hunt is managed to address primary concerns raised by TH. Personal data (i.e., data about individuals) will not be collected and will be immediately removed from any data gathering exercises. Data will be formatted to identify the daily count of types of vehicles and potential use of the area (e.g., mining, hunting) where possible. Information will not be maintained beyond this level of detail to protect personal privacy.

In addition to information collected from roadways, human use data may also be collected during permit issuance through the completion of a mandatory hunt report. This will provide specific information about the hunt, how it worked, and how people used the landscape. This information will also be a primary consideration in developing and implementing future hunt management tools. TH will collect feedback from subsistence harvesters during harvest reporting and will make pertinent data available to the HMC.



APPENDIX 5: PLAN IMPLEMENTATION

Introduction

The plan, guided by implementation activities will facilitate the coordination of management actions for the Fortymile caribou herd within Yukon. By following these actions, Yukon Parties will be better prepared to provide direction at a range wide scale working with our Alaskan partners.

The purpose of implementation is to give effect to the requirements of the Plan and the commitments of the Parties. The activities are established to ensure a coordinated approach in the development and implementation of management activities that should result in effective harvest management outcomes and stronger Yukon-centric planning. Activities are grouped into three categories:

1. Information collection and reporting including population and habitat data, hunter and community feedback, and harvest data;
2. An adaptive management regime that is based on an annual meeting which reviews information for the previous year, gathers public feedback, and identifies actions for the hunt year; and
3. Implement management actions including communication of information and actions to the public, adjacent First Nation governments and TH citizens.

Roles and Responsibilities of the Parties

The Parties are the governments that have jurisdictional authorities and associated responsibilities for the management of the harvest of Fortymile Caribou in the Canadian range of the

herd. At this time, this includes Tr'ondek Hwech'in (TH) and Government of Yukon (YG). They are the signatories to the Plan but may also include additional Parties should the herd expand into other First Nation Traditional Territories on a regular basis. The Parties agree to work together to achieve the objectives of the Plan and to effectively manage the harvest by all users of the herd. At a technical level, the Parties commit to continuing to work together through the Harvest Management Committee to meet the needs of implementation.

Roles and Responsibilities of the YFWMB and DDRRC

The Plan was developed in cooperation with the Dawson District Renewable Resources Council (DDRRC) and in consultation with the Yukon Fish and Wildlife Management Board (YFWMB). Both the DDRRC and YFWMB have roles and responsibilities in fish & wildlife management, and where appropriate may contribute input, advice, information or recommendations. Both the YFWMB and DDRRC also have specific mandates with respect to public engagement. The roles of each with respect to implementation of the Plan are defined in the TH Final Agreement.

Information Collection and Reporting

1) *Collect information contained in Appendix 4 and other data as identified by the HMC*

- a) *Activity:* Collect information on herd population size and demographics by assisting with the collection of data when caribou are in Yukon

or in adjacent Alaska as needed.

- b) *Activity:* Population models will be generated annually in June-July of each year to assist in identifying the trajectory and potential magnitude of change noted in the herd following the year's calving and early calf data becoming available and to assist in harvest planning for the next hunt year. Note that significant variance occurs in large migratory caribou populations and it can be expected that once photocensus are greater than three years of age, significant uncertainty will be present in the models.
- c) *Activity:* Maintain traffic monitoring along all major road arteries and key road junctures along the Top of the World highway to assist with long-term human use data in the region.
- d) *Activity:* Collect rigorous and verifiable harvest information for all hunters of Fortymile caribou. Each party will collect and report the following for inclusion in the annual summary report prepared for May 31 each year:
- Month of harvest
 - Harvest location summarized by Game Management Subzone
 - Number of caribou harvested
 - Sex: Bulls, Cows (Unknown - assume female)
- e) *Activity:* Identify the total harvest of moose in the Dawson West Moose Management Unit annually and track relative to historical harvest.

2) Prepare draft Annual Summary Report

- a) *Activity:* Prepare summary and make available for the first week of June (draft), including monitoring and research results included in Appendix 4 and information identified in activities 1 a) through 1 e) above.
- b) *Activity:* Include in the report a summary of available information collected from harvesters that includes details on accessibility of the hunt, hunt experience, incidental-hunting activities, and other details as identified necessary by the YHMC.

- c) *Activity:* Where a licensed registration hunt has occurred in the previous season, include a summary of the number of permits issued, hunter effort, and success of the hunt.
- d) *Activity:* Finalize summary report following acquisition of previous year's survival rates and population model runs, approximately late June to early July. Incorporate any comments received from the public, DDRRC, and governments.

Adaptive Management

3) Convene annual meeting the second week of June to review information and identify draft harvest management activities for the coming year

- a) *Activity:* Annual meeting to be hosted in Dawson the second week of June and will include an evening public meeting to present available information described in the draft annual summary report, and an opportunity for public input and questions.
- b) *Activity:* TH, YG, DDRRC and YFWMB will meet to review information the second week of June, examine potential harvest alternatives and the best scenario for the upcoming hunt year, identify desired modifications to hunt management within the constraints of the Plan, and identify any key communication needs including joint messaging if applicable. Specifically the following will be examined in the context of the Plan:
- Population trend and uncertainty
 - Significant changes in habitat condition, environmental and/or herd condition
 - How to meet harvest objectives within constraints of plan
 - Performance of adaptive provisions in previous hunt period and potential modifications to be considered
 - Key communication points for hunters and public/TH citizens
 - Range-wide management of the herd
- c) *Activity:* The YMHC will draft a memo of outcomes of the meeting including the hunt plan for the year and key communications. The memo will be used to inform all parties of the draft approach planned for the hunt year.



4) Complete check-in in early to mid-July to ensure draft management still appropriate

a) *Activity:* Convene a conversation with TH, YG, DDRRC, YFWMB to discuss range-wide management for hunt year and any new information on the condition of the herd. The discussion should be limited to:

- Any changes or new information related to population, population demographics or caribou condition that would potentially result in changes to harvest management
- Range-wide management actions that may result in changes to Yukon harvest management
- Any new external factors that may affect Yukon harvest management
- Modifications to Yukon harvest management required as a result of the above new information

b) *Activity:* If no significant deviations identified during the check-in in 4 a), finalize memo and make public. If significant deviations are found proceed to 4 c).

c) *Activity:* If needed, an emergency meeting should be called as soon as reasonably possible to address any urgent needs and communication required. Agenda items will be specific to the emergency issue. Communications including hunt year management will be determined as an outcome of the meeting.

5) Complete a check-in first week of November to discuss winter hunt measures and any adaptations required

a) *Activity:* Convene a telephone conversation with TH, YG, DDRRC, YFWMB to discuss range-wide management for the winter hunt and any new information on the condition of the herd. The agenda should be limited to the following unless agreed to by the parties prior to the check-in:

- A review of the recently completed summer and fall hunting periods including participation and success of licensed hunt, any identified issues or concerns raised, potential adaptive changes that should be considered in the following year
- Any changes or new information related to population, population demographics or caribou condition that would potentially result in changes to harvest management for the remainder of the hunt year
- Range-wide management actions that may result in changes to Yukon harvest management for the remainder of the hunt year
- Any new external factors that may affect Yukon harvest management for the remainder of the hunt year
- Discussion on the current distribution of the herd and expected winter movements/distributions
- Discussion on Yukon harvest to that date and expected harvest over winter period

- If needed, a pre-discussion on assignment of harvest to or from Alaska
- Setting of Yukon licensed quota for the winter hunt
- Modifications to Yukon harvest management for the remainder of the hunt season required as a result of the above new information

directly Party to Party as needed. Activities may include:

- Community presentations and meetings
- Engagement with Parties during In Camera sessions of the PCMB Annual Harvest Meeting
- Education through media, online sources (e.g., social media), pamphlets, road signage, etc

Management Actions including Communications

6) Finalize Annual Summary Report

- Activity:* Incorporate all new information (e.g., survival rates, population model runs, within season calf survival) up to mid-July and finalize/make public the report
- Activity:* Develop communication materials to address specific harvest related issues associated with each hunt period and ensure effective dissemination to each respective membership.
- Activity:* Develop communications materials to inform and educate harvesters, community members and the general public about the Plan, with attention to the following matters:
 - the history of the plan and the process to develop it
 - the signing of the plan and its meaning
 - conservation concerns about the herd
 - shared responsibilities of TH/YG and other partners (DDRRC, YFWMB)
 - the benefits of the Plan for the FMCH
 - what the Plan means to harvesters
 - the responsibility placed on harvesters by the Plan to do their part for herd conservation
- Activity:* Continue to implement youth/hunter education programs, including:
 - sight-in-your-rifle programs
 - community-based programs such as First Hunt and Fall Harvest Camp
 - traditional knowledge - education campaign (Elders, respected harvesters)

7) Engage with other parties that may be affected through the implementation of the Plan

- Activity:* If needed, work with PCMA User Communities and Parties via the PCMB and

Additional Management Activities

8) The Yukon Harvest Management Committee will identify a minimum population size for harvest consistent with the TH Final Agreement

- Activity:* The parties to the YHMC will identify a minimum herd population size where licensed harvest will end and will identify a herd population size(s) when there is only subsistence harvest including when only ceremonial harvest by Tr'ondëk Hwëch'in members will be considered.

9) The Fortymile Harvest Management Plan will be reviewed, evaluated and modified as appropriate

- Activity:* The HMC in collaboration with the DDRRC will review and evaluate the Plan to determine its effectiveness and need for revision in 2025 and in 5 year increments thereafter. The review will consider the following:
 - consideration of international agreements on the Plan
 - fulfillment of Plan goals, objectives and activities and their appropriateness going forward
 - the effectiveness of annual summary reports in sharing and making public information regarding the herd
 - the need to refine or remove existing adaptive management tools and the need to include new adaptive management tools to the Plan to manage licensed hunting activities
 - the need to integrate new management strategies for the herd including modification of harvest seasons, zoning and management prescriptions
 - review of the existing annual adaptive

management regime described in the Plan Implementation of the Plan

- effectiveness of communications between Parties, DDRRC, and YFWMB, and the public
- other matters as agreed to prior to the review

b) *Activity:* If a revision is required based on review, the Parties to the Plan will identify how they wish to proceed at that time and will communicate to the DDRRC, YFWMB and other Parties (e.g., additional First Nations in Yukon) as required at that time.

c) *Activity:* Implementation activities may be updated if agreed to by the Parties without requiring the Plan to be modified through the creation of an addendum to the Plan.



Avery, Grade 4



APPENDIX 6: HARVEST MANAGEMENT COMMITTEE MEMBERS

For Tr'ondëk Hwëch'in		For Government of Yukon	
Darren Taylor	2013-2020	Mike Suitor	2013-2020
Natasha Ayoub	2015-2020	Rob Florkiewicz	2015-2020
Lee Whalen	2020	Kirby Meister	2015-2020
Alice McCulley	2018-2019	Dorothy Cooley	2013-2015
Allison Kormendy	2017-2018	Torrie Hunter	2013-2015
Chris McLeod	2013-2015		
Roberta Joseph	2013-2015		



Oliver, Grade 1-2



APPENDIX 7: CONSOLIDATED RECOMMENDED REGULATORY CHANGES

1. Enable an adaptive management approach that allows the Minister to set the bag limit and sex of a licensed harvest.
2. Create opportunity for special youth wildlife act permits for registration hunts.
3. Create opportunity to allow for special out of season group/school hunts.
4. Create a Fortymile specific *Wildlife Act* permit



Abby, Grade 4



APPENDIX 8: YUKON FORTY MILE CARIBOU HARVEST MANAGEMENT COMMITTEE TERMS OF REFERENCE

1. Purpose

The purpose of the Yukon Fortymile Caribou Harvest Management Committee (YHMC) is to guide implementation of the Yukon Fortymile Caribou Herd Harvest Management Plan (the Plan).

2.3 Committee members represent the interests of their organization and are expected to have regular communication to receive guidance and approval of approaches from their leadership/membership.

2. Composition of the committee

2.1 The committee shall be comprised of 3 Environment Yukon nominees and 3 Tr'ondëk Hwëch'in nominees. Additional participants may be delegated from time to time in order to provide guidance and/or technical advice to the committee. Quorum will be reached when 2 Environment Yukon and 2 Tr'ondëk Hwëch'in nominees are present.

2.2 The committee may make provisions for the involvement of a representative from the Dawson District Renewable Resource Council (DDRRC) and/or the Yukon Fish and Wildlife Management Board (YFWMB) to assist in the development, refinement and implementation of the plan consistent with 3.4 and 3.5.

3. Objectives of the Committee

The objectives of this committee are to:

3.1 Implement harvest management goal(s) and objective(s) for Fortymile Caribou in Yukon;

3.2 Implement the Plan for Fortymile Caribou in Yukon that focuses on respective authorities and bilateral discussions, including specific harvest management actions to be taken by each Party and guidance for their implementation;

3.3 Implement specific activities identified in Appendix 5 to the Plan, Plan Implementation. The purpose of implementation is to give effect to the requirements of the Plan and the commitments of the Parties.

3.4 Ensure the DDRRC is consulted on the implementation of the Plan and has the opportunity to provide recommendations to

the relevant Parties as per their authorities outlined in Tr'ondëk Hwëch'in Final Agreement Chapter 16.6.10.1;

- 3.5 Ensure the YFWMB is consulted on the implementation of the Plan and has the opportunity to provide recommendations to the relevant Parties as per their authorities outlined in Tr'ondëk Hwëch'in Final Agreement Chapter 16.7.12.2;
- 3.6 Facilitate stakeholder, community and public input through public meetings identified in the Plan or through existing processes conducted by the DDRRC and YFWMB; and
- 3.7 Where appropriate, work collaboratively with other organizations that have responsibilities for managing the Fortymile Caribou including but not limited to the Fortymile Caribou Harvest Management Coalition and Alaskan wildlife management authorities, recognizing that this herd is an international herd that is subject to various management regimes and objectives.

4. Work of the committee

- 4.1 Work of the committee shall be undertaken in a spirit of cooperation and effective working relationships. Any disagreements of the committee that cannot be resolved shall be recorded and identified for later resolution in a fashion that does not disrupt the ongoing work of the committee.
- 4.2 Where the committee identifies additional or further studies that may assist in the implementation of the management plan, the committee may, by mutual consent, undertake or recommend such additional or further studies. The committee will have the opportunity to provide recommendations on work completed to support the ongoing implementation of the Plan.

5. Funding

- 5.1 YG and TH shall be responsible for costs associated with their respective representatives.
- 5.2 Additional support including the provision of relevant traditional, local, and technical expertise in the implementation of the Plan or the development of ongoing management recommendations may be provided as required and agreed to by the parties subject to appropriations and approved annual budgets of YG and TH.
- 5.3 Costs incurred with respect to the gathering or provision of technical information not identified by the committee will be the responsibility of each party.
- 5.4 Studies that may arise from recommendations of the committee are subject to priorities and budgetary constraints of each of the parties.

6. Terms of the Committee

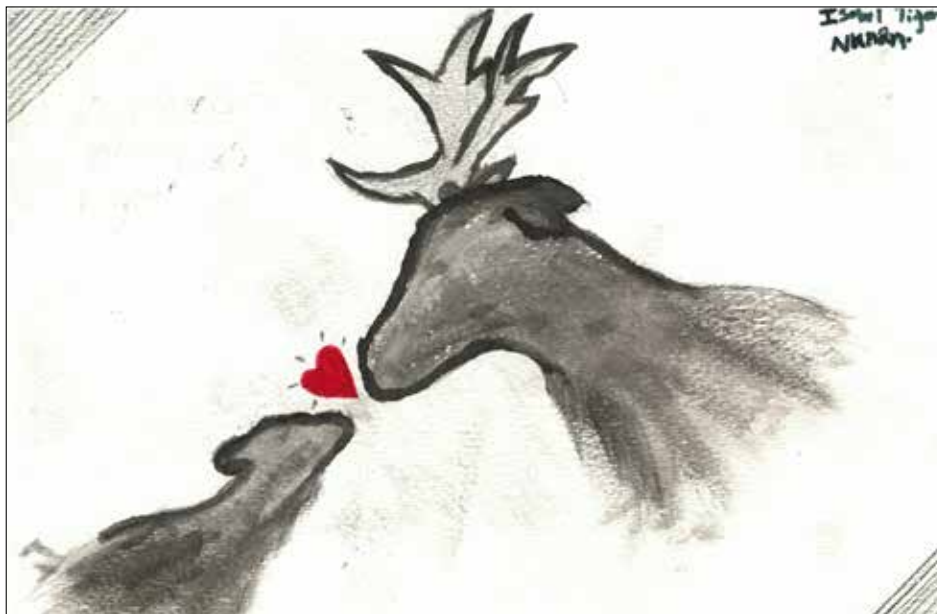
- 6.1 The committee is formally established with the approval of the Plan.
- 6.2 Review of the Term of Reference for the committee will coincide with the Plan Review, or may be amended at any time through agreement of the Parties.
- 6.3 The terms of reference may be terminated at any time upon written notice of either of the Parties to the agreement.

APPENDIX 9: FORTY MILE CARIBOU OPERATIONAL PLAN AUGUST 2020

Dates	Season	Subsistence Hunting	Licensed Hunting	Reporting, Monitoring, and Data Collection	Communication	Management
May 1 – Jun. 21	Calving and post-calving	Subsistence harvest	Closed	<ul style="list-style-type: none"> • Yukon harvest data roll-up and reporting for May 15 • Draft monitoring report June 3 • Parturition rates, early calf survival, previous year survival rates all estimated late June 		<ul style="list-style-type: none"> • Meet second week of June • Half day meeting open to public • Up to full-day meeting TH, YG, DDRRC, YFWMB to draft management
Jun. 22 – Jul. 31	Summer movement	Subsistence harvest <ul style="list-style-type: none"> • Community hunt • Culture camps 	Closed	<ul style="list-style-type: none"> • Close monitoring of distribution • Photocensus support as needed late June and early July • Population modelling using available data in late June/first week of July • Finalize annual report • Collection of samples from subsistence harvest if available • Conservation officer and game guardian patrols 	<ul style="list-style-type: none"> • Communication about the herd and hunts for year • Newsletter issued • Information kiosks placed at ferry landing before herd arrives • If applicable, signage placed on highway and side roads 3 days prior to hunt initiation 	<ul style="list-style-type: none"> • Check-in all parties based on final report to ensure management actions are correct • Range wide harvest rate and domestic management identified • If needed, follow up meeting second week of July to change management
Aug. 1 – Sept. 9	Summer	Subsistence harvest	Licensed harvest through wildlife act permit – registration threshold hunt <ul style="list-style-type: none"> • 20 permits issued in 5-day increments (e.g., Aug 1-5, Aug 6-10...) • 72 hour reporting period • Harvest submission of incisor bar and hunter report • GMA 3-01, 3-04, 3-02 west of Browns and Twelve Mile creeks • Quota set to 160 • 1 bull bag limit 	<ul style="list-style-type: none"> • Collection of samples from all harvesters where possible • Conservation officer and game guardian patrols • Collaboration with Alaska Department of Fish & Game to collect compatible samples in Alaska 	<ul style="list-style-type: none"> • Information kiosks updated as necessary for licensed hunt • If needed, initiate public communication for closure of licensed hunt before September 9th, should quota be reached. Update kiosks. 	<ul style="list-style-type: none"> • If possible quota may be met, prepare up closure documents should quota be reached • Initiate closure to ensure overharvest does not occur

Dates	Season	Subsistence Hunting	Licensed Hunting	Reporting, Monitoring, and Data Collection	Communication	Management
Sept. 10 – Nov. 30	Fall	Subsistence harvest	Closed	<ul style="list-style-type: none"> • Photo-census results from summer work usually available in this period when photos collected • Collection of samples from subsistence harvest if available • Rut composition survey if in Yukon October 4-12 • Capture of 4 month old calves for monitoring in Yukon if needed October 4-12 • Summer harvest data roll up for YG. 	<ul style="list-style-type: none"> • Public communication describing herd activities and hunt • Communication on herd and winter hunt including second newsletter release in early to mid November 	<ul style="list-style-type: none"> • Check-in all parties based on any monitoring updates to ensure management actions are correct. Discuss summer and any fall hunting Mid-November • Set winter quota based on summer quota remainder and winter quota
Dec. 1 – Mar. 31	Late winter	Subsistence harvest <ul style="list-style-type: none"> • Community hunt • Culture camps 	Licensed harvest season: <ul style="list-style-type: none"> • Threshold hunt • 72 hour reporting period • Harvest submission of incisor bar • Signage as per herd distribution (e.g., upriver leaving town, TOW) • GMA's identified for FMCH/NCH management • 1 bull bag limit (does not include Porcupine caribou harvest, which allows for a second caribou in this situation) 	<ul style="list-style-type: none"> • Collection of samples from harvested animals if available • Collar deployment in Yukon if needed in March • Close monitoring for Nelchina, Fortymile, and potentially Porcupine caribou may be necessary to assign harvest where hunting and herd distributions overlap • Conservation officer and game guardian patrols 	<ul style="list-style-type: none"> • Information kiosks placed and updated as necessary for licensed hunt • If needed, initiate public communication for closure of licensed hunt before March 31st, should quota be reached. Update kiosks 	<ul style="list-style-type: none"> • If possible quota may be met, prepare closure documents should quota be reached • Initiate closure to ensure over-harvest does not occur
Apr. 1 – Apr. 30	Spring migration	Subsistence harvest	Closed	<ul style="list-style-type: none"> • Winter harvest data collection and verification 		

Dates	Season	Notes on herd	Subsistence harvest	Licensed hunting
May 1 – June 21	Calving and post-calving	Cows on or near calving ground in Alaska. Mostly bulls/young cows in YT.	Open	Closed
June 22 – July 31	Summer movement	Large numbers may arrive on YT summer range during period.	Open <ul style="list-style-type: none"> • community hunt • culture camps 	Closed
August 1 – September 9	Summer	Bulls in prime condition. Caribou often withdrawing to Alaska.	Open <ul style="list-style-type: none"> • Other gathering activities (e.g., berry picking) 	Registration hunt with special consideration for youth.
September 11 – November 30	Fall	Herd arriving in YT any-time but generally in October or November. Large movements until December usually. Bulls rutting Oct 6-10.	Open <ul style="list-style-type: none"> • Fall harvest camp • Consider cow/young bull harvest during rut 	Closed to caribou harvest, open to moose harvest until October 31. Special education permits for school groups or cultural camps.
December 1 – March 31	Late Winter	Greatest distribution in YT early in season. Caribou may start to with-draw towards calving range in March	Open	Threshold or registration hunt.
April 1 – April 30	Spring Migration		Open	Closed



Tigoni, Grade 5




Yukon