

Legislative Options for Caribou Protection

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1 INTRODUCTION

Barren-Ground Caribou are an iconic northern species. Historically they have been central to the sustenance and culture of Northern aboriginal peoples, including Inuit. Legal protection for caribou has been a topic of interest in the Northern territories since at least the early 1930s. Both federal and territorial governments have played a role in caribou protection. Today, caribou remain important as a source of food to Nunavut communities. Governments, communities and Aboriginal organizations have raised concerns locally, regionally and nationally about declining caribou populations.

Recent population data for barren-ground caribou suggests that the majority of herds in North America are in decline. In 2016, COSEWIC assessed barren-ground caribou as Threatened. The decision was based on a 57% decline of seven herds. Further, in 2015, the IUCN Red List assessed caribou and wild reindeer as Vulnerable.

Caribou herds are under pressure from hunting, climate change and development projects. Caribou are often found in the same areas as potential development projects, raising the need to ensure that caribou management and conservation are considered and built into the development process.

One way to protect caribou is through legal mechanisms. This includes legislation, regulation, wildlife management plans, land use planning instruments, and environmental assessment and approval conditions.

Historically, the Northwest Territories (“NWT”) used legal mechanisms to manage and protect caribou. More recently, the NWT has used a combination of legal mechanisms for caribou protection. This includes a mix of statutory provisions based on wildlife laws and conditions imposed through environmental assessments and approvals.

Nunavut is also seeking to use legal mechanisms for caribou protection. Most recently, Nunavut has sought to address concerns about caribou populations through land use planning restrictions proposed by the Nunavut Planning Commission (“NPC”). Under the current proposal, the NPC will create Protected Areas encompassing barren ground caribou calving and post calving areas. The proposal will exclude any development within Protected Areas, regardless of whether the Protected Area includes Inuit Owned Land (“IOL”) and/or prospective mining lands.

The NPC’s proposed approach could have a significant impact on future economic development, including mining. This will affect both mining companies and Inuit who would benefit from these projects.

This paper briefly examines the proposed NPC approach in Nunavut as well as current and historic approaches in the NWT to manage and protect caribou. A review of the NWT approaches demonstrates that flexible mechanisms are available which could accomplish caribou protection while still allowing for carefully managed economic development.

2 THE LEGISLATIVE FRAMEWORKS

Both the Northwest Territories and Nunavut have legislative systems that can be used to protect caribou.

2.1 HISTORICAL APPROACH IN NWT

In the late 1970s, Caribou Protection Measures were developed for the Kaminuriak and Beverly barren-ground caribou herds by the Department of Indian Affairs and Northern Development (“DIAND”). The measures were imposed under the *Territorial Lands Act*,¹ which required land use permits for exploration and development activity.

Section 31(1) of the *Territorial Land Use Regulations* allowed DIAND to include conditions in land use permits. Conditions included the areas that would be used, the times when work could be conducted and conditions for the protection of wildlife habitat.²

Caribou Protection Measures were incorporated through these powers into land use permits. Caribou Protection Maps, prepared by DIAND, were incorporated into the *Territorial Land Use Regulations*, and set out the areas where Caribou Protection Measures applied.³ Caribou Protection Measures targeted the protection of caribou cows and calves.

The Caribou Protection Measures prohibited land use permit holders from operating from May 15 to July 15 of any year in the calving and post-calving areas and at designated water crossings during migration.⁴

In the first year the Caribou Protection Measures were implemented, land use permits restricted all operations between May 15 and July 31. The exception was for migration areas, where work could commence once a wildlife biologist confirmed that the route was not in use or that the caribou had already passed through the migration area at least ten days prior.⁵

In following years, land use permit holders within a Caribou Protection Area could have controls removed/released if monitoring showed that caribou cows and calves were not in the area. The monitoring was conducted using an air and ground program to identify the areas actively used by caribou, including the proximity of caribou to any operations.⁶

¹ Territorial Lands Act, R.S., c. 263

² Territorial Land Use Regulation, (1977?), c1524 s. 31(1).

³ L. Mychasiw, “Five Year Review of the Beverly and Kaminuriak Caribou Protection Measures”, NWT Renewable Resources, File Report No. 42, 1984.

⁴ Gunn, Anne and Poole, Kim, “A pilot project to test the use of aerial monitoring to supplement satellite collared caribou for mobile caribou protection measures.” Prepared for Deline Renewable Resources Council, April 25, 2009.

Gunn, A., K.G. Poole, J. Wierzchowski and M. Campbell. 2007, Assessment of Caribou Protection Measure. Unpublished report submitted to Indian and Northern Affairs Canada.

⁵ 1978 Caribou Protection Measures (Kaminuriak and Beverly Herds)

⁶ Gunn, Anne and Poole, Kim, “A pilot project to test the use of aerial monitoring to supplement satellite collared caribou for mobile caribou protection measures.” Prepared for Deline Renewable Resources Council, April 25, 2009.

Operations outside but adjacent to the Caribou Protection Areas could operate between May 15 and July 31, unless the air and ground monitoring identified caribou within the vicinity of the operations.⁷ If caribou were viewed, operations ceased.

Land use permits under the *Territorial Lands Act* and the flexibility provided by the Caribou Protection Measures and the air and ground monitoring allowed for the protection of caribou while permitting responsible economic development. A study of the Caribou Protection Measures found that the measures were effective in limiting the impact of development on caribou calving and post calving areas.⁸ Another study found that the Caribou Protection Measures “were instrumental in reducing potentially harmful disturbance of caribou cows and calves.”⁹

2.2 CURRENT NWT APPROACH

The NWT now uses its powers under the *Wildlife Act* to regulate the protection of caribou.¹⁰ Under the *Wildlife Act*, GNWT has established mobile management zones, temporal conservation zones and requires Wildlife Management and Monitoring Plans.

The NWT *Wildlife Act* allows for various mechanisms to protect wildlife and/or their habitat.

Under section 89 of the *Wildlife Act*, the GNWT can designate conservation areas for the purpose of conserving wildlife or habitat. Conservation areas can exist for one or more specific periods of time.¹¹ The GNWT has used this provision to create conservation areas for caribou during periods of calving. The *Critical Wildlife Areas Regulations*, continued under this section,¹² states “caribou calving areas are critical wildlife areas during the period of May 25 to June 15 of every year.”¹³ During other periods of the year, these are not conservation areas. The regulations unfortunately prescribe no protection for these areas beyond declaring them to be critical areas during the calving period. Nevertheless, NWT wildlife legislation has the basic tools already in place to manage and protect calving and post-calving areas.

In addition to designating conservation areas, the GNWT has the authority under section 88 of the *Wildlife Act* to designate management zones for the conservation and management of wildlife.

Section 173 of the *Wildlife Act* allows the GNWT to make regulations for a number of purposes, including for management zones and conservation areas.¹⁴

Gunn, A., K.G. Poole, J. Wierzchowski and M. Campbell. 2007, Assessment of Caribou Protection Measure. Unpublished report submitted to Indian and Northern Affairs Canada.

⁷ L. Mychasiw, “Five Year Review of the Beverly and Kaminuriak Caribou Protection Measures”, NWT Renewable Resources, File Report No. 42, 1984.

⁸ Gunn, A., K.G. Poole, J. Wierzchowski and M. Campbell. 2007, Assessment of Caribou Protection Measure. Unpublished report submitted to Indian and Northern Affairs Canada.

⁹ L. Mychasiw, “Five Year Review of the Beverly and Kaminuriak Caribou Protection Measures”, NWT Renewable Resources, File Report No. 42, 1984.

¹⁰ *Wildlife Act*, SNWT 2013, c. 30.

¹¹ *Wildlife Act*, s. 89.

¹² These regulations existed under the previous *Wildlife Act* enacted in 1978 and at one time listed all the calving areas in the pre-division NWT (this included Nunavut). Today the regulations refer only to the Bluenose calving areas in the NWT.

¹³ *Critical Wildlife Areas Regulations*, s. 2.

¹⁴ *Wildlife Act*, s. 173(z.49)

In 2016, under sections 88 and 173 of the *Wildlife Act*, the GNWT created the *Mobile Caribou Protection Zone Regulations*.¹⁵ These regulations establish a wildlife management zone for barren-ground caribou intended to limit harvesting. The area can be moved and adjusted as required, based on the migration and presence of caribou cows and calves. Caribou locations are monitored and revised using satellite tracking collars and surveys from airplanes. The management zone can then be adjusted weekly, to ensure protection of caribou cows and calves.¹⁶

The regulation states that the mobile management zone will be defined on maps available from the Superintendent of Wildlife at Yellowknife, each regional office of the Department of Environment and Natural Resources and posted in each community. The updated maps are also available on the Department of Environment and Natural Resources website.¹⁷ No harvesting of caribou can occur within this management zone.

At this time, the mobile management zone is used to restrict hunting of caribou only. There are no management plans to address the effects of other activities such as exploration or development in place – this is simply a “no hunting zone.” There are currently no management plans to guide the interaction of caribou with economic development projects.¹⁸

Based on the experience with the historic Caribou Protection Measures, discussed above, it is possible that a mobile management zone approach could also be used to manage the effects of development activity on caribou. For example, as caribou herds move towards exploration projects, notification could be provided and work temporarily suspended or adjusted to minimize impacts.

Another legal mechanism to incorporate this mobile management zone into development projects is through section 95 of the NWT *Wildlife Act*.

Section 95 of the *Wildlife Act* allows the GNWT to require a developer, other person or body to prepare wildlife management and monitoring plans. Section 95 states that:

- 1 A developer or other person or body may be required, in accordance with the regulations, to prepare a wildlife management and monitoring plan for approval by the Minister, and to adhere to the approved plan, if the Minister is satisfied that a development, proposed development, or other activity is likely to
 - a) result in a significant disturbance to big game or other prescribed wildlife;
 - b) substantially alter, damage or destroy habitat;
 - c) pose a threat of serious harm to wildlife or habitat; or

¹⁵ Mobile Core Bathurst Caribou Management Zone Regulations, R-006-2016

¹⁶ The use of radio and now satellite collars in wildlife management is a well-known and widely used technique.

¹⁷ <http://www.enr.gov.nt.ca/> See also http://www.enr.gov.nt.ca/sites/default/files/mobile_core_bathurst_caribou_conservation_areas_map_-_march_14_2017.pdf for the map for the week of March 14, 2017.

¹⁸ The Department of Environment and Natural Resources GNWT is engaged in a cross-border initiative to establish a range management plan for the Bathurst caribou herd. This draft plan does address development. It is too early yet to say whether it will provide a mechanism to manage development effects on caribou. In addition, although GNWT is consulting with Nunavut officials and communities, the plan can have no legal effect in Nunavut.

- d) significantly contribute to cumulative impacts on a large number of big game or other prescribed wildlife, or on habitat.
- 2 A wildlife management and monitoring plan must include:
- a) a description of potential disturbance to big game and other prescribed wildlife, potential harm to wildlife and potential impacts on habitat;
 - b) a description of measures to be implemented for the mitigation of potential impacts;
 - c) the process for monitoring impacts and assessing whether mitigative measures are effective; and
 - d) other prescribed requirements.
- 3 If a developer or other person or body that is required to prepare a wildlife management and monitoring plan has, for a body under other legislation, prepared a plan that deals to the Minister's satisfaction with part or all of the matters referred to in subsection (2), the Minister may accept that plan, or part of it, in place of part or all of the requirements under subsection (2).

Under this section the Minister can require development proponents to prepare Wildlife Management and Monitoring Plans ("WMMP"). Where there is a requirement to prepare a WMMP, it is an offence under the *Wildlife Act* to not have or fail to implement a WMMP.

The advantage of section 95 is that it does not fence off large areas of land and prohibit development. Instead, this approach allows for development to proceed if impacts on caribou can be minimized. The requirement for a WMMP ensures the potential impacts are identified and mitigated, and that the proponent carries out monitoring to confirm minimal impacts and effective mitigation measures. All WMMPs must be reviewed and approved by the Minister.

NWT is developing Guidelines to assist proponents to develop WMMPs under section 95. The Guidelines will assist proponents to understand when a WMMP will be required and how to prepare an effective WMMP. The Guidelines will set out how the GNWT will assess whether a project will require a WMMP, including how risks to species and habitat will be assessed.

Examples of projects that will likely require a WMMP include clearing vegetation, quarries, mines, draining lakes, ponds or wetlands or flooding areas, roads and pipelines.

We expect the Guidelines to encourage proponents to submit a draft WMMP as part of the preliminary screening or EA process. This is beneficial to proponents, as it allows for the WMMP approval times to fit more closely with sign off from the EA process, and will also ensure that potential impacts and mitigation measures have been identified during the EA. WMMPs will be posted for public comment and feedback.

We further expect that the Guidelines will require that WMMPs include robust monitoring with triggering values or events. Once triggering values or events are met, immediate steps must be taken. This ensures that when an impact is first observed, mitigation actions will be taken. WMMPs will be project-specific, but can draw on existing plans, guidelines, regulations and stakeholder engagement. In addition, WMMPs will be required to consider cumulative effects.

WMMPs allow proponents to draw on general knowledge and management plans, while also including site specific information and impacts. Of interest is when, and if, proponents will be able to draw on the experience with the Caribou Protection Measures and the Mobile Caribou Protection Zone to find a flexible approach to allow development while minimizing impacts on caribou herds.

So far the NWT is downloading the responsibility to create management plans for caribou populations to project proponents. The difficulty with this approach is that there is no one comprehensive regulation or management plan that will oversee the management and protection of an entire herd throughout its full territory.

2.3 PROPOSED APPROACH IN NUNAVUT

In contrast to the more flexible approaches being developed in NWT, that incorporates conservation, management and development with an understanding of the broad use of geographic ranges by caribou, the approach in Nunavut has been drive by the Nunavut Planning Commission's draft Nunavut Land Use Plan ("dNLUP"). The dNLUP takes a more rigid approach. Despite this, there is room in Nunavut legislation to embrace a more flexible approach.

Nunavut's *Wildlife Act*, section 139 permits the Government of Nunavut to designate "specific physical areas or landforms" as critical habitat to implement a recovery policy or protect a listed species. Areas may also be designated as a special management area.¹⁹ Special management areas can be established to benefit a prescribed class of wildlife or habitat, preserve ecological integrity, preserve biodiversity or for the application of special wildlife management rules for the area.

Nunavut has enacted the *Conservation Areas Regulation*²⁰ under the *Wildlife Act*, to designate Wildlife Sanctuaries and Special Management Areas. The Wildlife Areas and Special Management Areas are fixed locations, set out in the regulation using GPS coordinates. Several of the Special Management Areas are based on calving areas. The regulations do not contemplate mobile or moving areas of protection.

While Nunavut has created Special Management Areas under the Conservation Areas Regulation, they have effectively only set out boundaries. There are no management policies or wildlife management rules developed for these areas.

Nunavut could use its powers under section 141 of the Nunavut *Wildlife Act* to designate Caribou calving, post calving and migration routes as special management areas, and implement special wildlife management rules for area. Special wildlife management rules under the *Wildlife Act* could include hunting restrictions or requirements to work with the Nunavut Wildlife Management Board and RIAs to balance economic development with caribou management.

¹⁹ Special management areas under the *Wildlife Act* are different from special management areas under the proposed Nunavut Land Use Plan.

²⁰ R-009-2015, <http://gov.nu.ca/sites/default/files/gnjustice2/justicedocuments/Gazette/Part-II/635684951021406250-798620573-2015gaz05part2--.pdf>

The dNLUP identifies areas where resource development and other activities can occur. Once the dNLUP is finalized, proponents will be required to submit their proposal to the NPC to confirm that the project conforms with the dNLUP. Proponents cannot proceed through the screening and regulatory process until the NPC provides this confirmation. The dNLUP, once approved, will be legally binding and apply to all permits, licences and authorizations.²¹

The dNLUP creates Protected Areas, Special Management Areas, and Mixed Use Areas. Protected Areas prohibit potential uses and development. Special Management Areas can restrict or prohibit certain uses, impose conditions on land use, and allow for economic development as well as conservation. Mixed use areas allow all uses except highways and railways. The dNLUP provides for seasonal restrictions.

The dNLUP designates core caribou calving areas, key access corridors, post-calving areas and freshwater caribou crossings as Protected Areas and prohibits incompatible uses.

Prohibited uses for core caribou calving areas, key access corridors, and post-calving areas include:

- ◆ Mineral exploration and production
- ◆ Oil and gas exploration and production
- ◆ Obnoxious land use
- ◆ Quarries
- ◆ Hydro-electrical and related infrastructure
- ◆ Linear infrastructure
- ◆ Related research except non-exploitive scientific research.

Prohibited uses for freshwater caribou crossings include:

- ◆ Mineral exploration and production
- ◆ Oil and gas exploration and production
- ◆ Quarries
- ◆ Hydro-electrical and related infrastructure
- ◆ Permanent tourism-related structures
- ◆ Linear infrastructure
- ◆ Related research except non-exploitive scientific research.

These Protected Areas are fixed under the dNLUP and do not provide for variation of boundaries to accommodate movement of caribou migration routes and calving and post calving areas.

Recent reviews of calving ground locations based on both satellite collar data and Inuit Qaujimajatuqangit indicate that sooner or later fixed areas will not protect caribou because the calving and post-calving grounds move.²²

²¹ Draft Nunavut Land Use Plan, 2016,
http://www.nunavut.ca/files/2016DNLUP/2016_Draft_Nunavut_Land_Use_Plan.pdf

²² *Variability in calving and post-calving areas of the Bluenose-East and Bathurst Caribou Herds*, by EDI Environmental Dynamics Inc. and Aurora Wildlife Research, December 2016 – report prepared for Kitikmeot Inuit Association.

Any proposal for development, including mining exploration, in these Protected Areas will not be able to proceed through the regulatory process, absent amendments to the dNLUP. Amendments will likely be difficult to obtain, and take significant time to review.²³

Designation as Protected Areas will eliminate any potential for use of these lands for economic development. Many of these Protected Areas include Inuit Owned Lands (“IOL”). In the Kitikmeot Region, the protected areas encompass 28.4% of IOL, including 34.5% of subsurface IOL for the region. This removes over one third of subsurface IOL from any potential for economic development. This is significant when considering that subsurface IOL was selected based on its economic opportunity.

The Government of Nunavut has referred to this approach as prohibitive, and generally inconsistent with its existing Caribou Strategy. Instead, the Government of Nunavut has suggested using section 141 of the Nunavut Wildlife Act, described above, to protect habitat while balancing other socio-economic goals. However, aside from flagging this as a potential alternative, the Government of Nunavut has not set out a proposal for how they could or would use section 141 to manage caribou.²⁴

A joint submission by the Nunavut Tunngavik Inc. (“NTI”) and the three Regional Inuit Associations (“RIAs”) point to the impact of the draft dNLUP on IOL. They state that many IOLs were selected based on the existing mineral rights. Prohibiting any development on these lands strips the economic development potential and the benefit of IOL. Further, NTI and the RIAs argue in favor of local regional approaches that consider the specific context of the region, the project and the caribou population.²⁵

Further, a fixed, inflexible zoning approach will either have to cover far too large an area, or will risk failing to provide protection as caribou calving areas and migration routes change, either as part of the natural cycle or as the impacts of climate change continue to intensify.

The use of fixed conservation areas strictly prohibiting development is not the most effective way to manage wildlife, including caribou. To date, Nunavut has managed caribou through the environmental assessment process, described below. This allows for a collaborative approach between the Government of Nunavut, the relevant RIA and the proponent, taking into account the project impacts and the specific caribou herd(s). The dNLUP should set out management options for multiple uses, and allow the regulatory approval process to determine what management options apply to the project.

It remains open to the NPC to change its approach. One option would be for NPC simply to designate these areas as Special Management Areas under the NLUP and require that any development minimize and mitigate impacts on caribou. In addition, NPC should consider incorporating the principle of mobile management, to ensure habitat protections reflect changes in caribou use over time. This approach balances protection of important caribou habitat with economic development. There are costs associated with establishing, monitoring and maintaining a mobile protection zone. However, these costs can be covered, at least in part, by project

²³ The dNLUP allows for a party to apply for a minor variance from the plan. However, minor variances are limited to “relief or reasonable deviation from certain Conditions of a Land Use Designation while not permitting additional uses or changing a Land Use Designation.” Minor variances are only available for setbacks and seasonal restrictions.

²⁴ Government of Nunavut, 2016 Draft Nunavut Land Use Plan Review, January 13, 2017.

²⁵ NTI and RIAs, Prehearing Written Submission – 2016 Draft Nunavut Land Use Plan, January 13, 2017.

proponents. No matter how you do the math, we suggest that a flexible approach will be less costly to Nunavut and its people in the long term.

In comparison with the approach taken in NWT (both currently and historically), the proposed approach to caribou protection in Nunavut is rigid and threatens to eliminate the potential for economic development in Protected Areas and on IOL. Further, with changes in migration patterns and calving areas due to natural cycles and climate change, the use of fixed boundaries threatens to miss the mark, leaving caribou exposed.

3 ENVIRONMENTAL ASSESSMENT AND CARIBOU

Further to the statutory approaches outlined above in NWT, NWT has also incorporated caribou management into the Environmental Assessment (“EA”) processes. This allows for site specific management plans that address local concerns while still permitting responsible project management and economic development.

One example of this is Dominion Diamond Ekati Corporation’s Jay Project. The Jay Project is an expansion of the existing Ekati Mine in NWT, near Lac du Gras. The Jay Project involves closing off a portion of Lac du Gras to allow for an open pit diamond mine. The project includes mining and processing diamonds and constructing a new road for transportation of ore to the main Ekati site.

The Jay Project is located on a Bathurst caribou migration route. The Mackenzie Valley Environmental Impact Review Board found that the Jay Project “is likely to cause significant adverse project-specific and cumulative impacts to the Bathurst caribou herd. The Project proposes to cross an important caribou migration corridor at a time when the herd is in a precarious and ‘extremely worrisome’ state.”²⁶ In reaching this conclusion, the Board relied in part on Traditional Knowledge and radio collar information and field studies conducted over two decades.

To address these concerns the Board made specific recommendations about caribou protection and suggested a requirement for a Wildlife Effects Monitoring Plan (now a WMMP) under section 95 of the *Wildlife Act*. The Board recommended that the WMMP require Dominion to:

- ◆ Investigate and implement innovative actions to mitigate impacts to caribou from barriers to movement
- ◆ Define specific thresholds that trigger road management responses
- ◆ Describe methods for monitoring approaching caribou at intermediate distances beyond the line of sight
- ◆ Prepare dust management best practices with adaptive management triggers
- ◆ Use Traditional Knowledge
- ◆ Describe specific monitoring and mitigation impacts

As part of its application, Dominion included a commitment to implement programs and plans to mitigate impacts on Bathurst caribou. These plans were updated and revised during the hearing to incorporate comments and concerns from participants.

²⁶ MVEIRB, EA1314-01: Dominion Diamond Ekati Corp., Jay Project, Report of Environmental Assessment and Reasons for Decision, February 1, 2016.

In closing submissions, Dominion committed to preparing a Caribou Road Mitigation Plan and a Caribou Mitigation Plan – Compensatory Mitigation. The plans include \$1.3 million in funding for implementing research and monitoring programs, including the use of real-time caribou collar satellite information and investigating other detection systems. Both plans included provisions for adaptive management. The Board recommended that the Caribou Road Mitigation Plan be incorporated into the WMMP.

The Board, subject to these and other measures, recommended the project be approved.

The GNWT responsible ministers agreed to the recommendation of the Board, approving the Jay Project subject to implementation of the Board’s recommendations, including the Caribou management plans.

Dominion’s proactive approach to mitigation and its willingness to revise and implement mitigation and management plans helped the Board recommend that the project proceed, subject to recommendations to improve the caribou monitoring and management plans.

At the same time, Traditional knowledge combined with existing radio collar data establishing the location of the Bathurst caribou migration and calving areas were critical to the Board finding that there would be an impact on caribou, and that mitigation measures were required.

Nunavut has sought to incorporate caribou management strategies into environmental assessments, based on the Jay Project described above. An example of this is Sabina Gold & Silver Corp’s Back River Gold Mine Project. While the Nunavut Impact Review Board ultimately recommended that project not proceed, the hearing included a proposed Wildlife Mitigation and Monitoring Program Plan (“WMMPP”) and joint submissions on caribou protections from KIA, the Government of Nunavut and the proponent.²⁷

The Back River Gold Mine includes a gold mine, mill and associated infrastructure and a marine laydown area in the Kitikmeot region of Nunavut. As part of its application, Sabina submitted a WMMPP to minimize or eliminate potential effects on wildlife. The Plan included

- ◆ optimizing design so that infrastructure is away from sensitive wildlife areas
- ◆ reducing dust fall
- ◆ best management practices including work stoppages around sensitive wildlife temporal periods, aircraft flight restrictions, and vehicle restrictions, and
- ◆ adaptive management protocols with facility and species specific monitoring plans.

During the review, Sabina met with stakeholders to revise the WMMPP. The updated plan included revised monitoring protocols to trigger mitigation and additional monitoring measures for caribou. Other changes included updated calving, post calving, and collar monitoring measures, a regional monitoring plan using satellite collars and a behavior monitoring program to evaluate caribou responses to potential disturbances. These changes were presented as a joint submission by Sabina, the Government of Nunavut and KIA.

²⁷ Nunavut Impact Review Board Final Hearing Report, Black River Gold Mine Project, NIRB File No. 12MN036, June 2016.

This project is an example of proponents and the Government of Nunavut exploring mitigation and management plans in an environmental assessment to allow responsible economic development while protecting caribou.

These projects are also an example of mining industry contribution to funding for tracking caribou. The projects both included funding for satellite collars and investigating methods to detect caribou. By including funding for these technologies into project approvals, project proponents help to offset the costs for establishing and maintaining a mobile caribou protection area.

4 CONCLUSION - ADVANTAGES TO A FLEXIBLE APPROACH

A review of the current and historic approaches in the NWT demonstrates that flexible approaches to caribou management and protection are both feasible and successful. The NWT approach is not perfect and could be broadened to take advantage of existing mobile caribou data and funding from new development projects. However, the NWT approach is progressing towards a system that is adaptable to natural and climate change induced alterations to wildlife habitat, including caribou migration routes and calving areas.

In addition, the NWT approach seeks to balance the protection of caribou with the need for economic development. When done carefully, economic development can coexist with wildlife protection.

The Nunavut approach has elements of flexibility outside of the dNLUP process. Existing environmental assessments consider impacts on caribou and plan for management strategies, including funding and research into satellite collars and other methods to track caribou. Further programs and management policies could be implemented under the Nunavut *Wildlife Act*, though there does not appear to be any clear plan to do so.

The dNLUP fails to take advantage of the flexible approaches used in NWT. It also fails to consider the approaches currently in place through the Nunavut environmental assessment and permitting processes. The dNLUP risks stripping any potential for economic development while creating static areas that may not protect caribou in the near future.

Both Nunavut and NWT have legislation in place to allow for flexible, mobile and comprehensive caribou management, while allowing responsible economic development. Nunavut and NWT must look at their options, utilize the existing legislation and move forward with well-developed and flexible management plans.

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