

# **Mining, Caribou, and Impact Assessment in Unceded Kaska Dena Territory, Yukon**

**A retrospective analysis of assessed and approved projects, 2006–2024, with implications for regulatory and policy reform**

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# Executive Summary

This report examines how mineral exploration and mining projects have been assessed and approved in unceded Kaska Dena territory between 2006 and 2024, with a focus on projects with predicted impacts to caribou. Drawing on a comprehensive review of Yukon Environmental and Socioeconomic Assessment Board (YESAB) assessments and Yukon government (YG) decisions for 92 projects (90 exploration projects and 2 mines), the study investigates how projects with significant predicted impacts to caribou continue to be approved in the region despite known risks.

## Context

Unceded Kaska Dena territory spans approximately 25% of present-day Yukon and supports 11 woodland caribou herds, all of which are listed under the federal *Species at Risk Act*. The two Yukon-based Kaska Nations—Ross River Dena Council (RRDC) and Liard First Nation (LFN)—have not signed modern treaties and contest Yukon’s asserted jurisdiction over land use and decision-making in their territory. Despite this, YESAB continues to assess, and YG continues to approve, mining activities on Kaska lands.

Caribou are highly sensitive to industrial disturbance, particularly from habitat loss, linear infrastructure, noise, and increased access. Mining has been the leading cause of industrial disturbance in Kaska territory for decades. Scientific and government sources have repeatedly identified mining as a key driver of caribou population decline, and both Kaska Nations and caribou biologists have warned that continued extractive development in southeast Yukon could result in herd extirpation. Kaska Nations have begun to implement their own land use planning, assessment, and consent processes and have challenged YG in court over free entry staking and the approval of the Kudz Ze Kayah mine.

## Key Findings

### 3.1 Almost every exploration and mining project is approved

Between 2006 and 2024, YESAB recommended approval for 96% of mineral exploration and mining projects assessed in Kaska territory. Yukon approved 100% of the projects for which it issued decision documents. No exploration or mining project was rejected by YG during the study period, even where YESAB recommended rejection based on unmitigable impacts to caribou.

### 3.2 Project splitting undermines assessment

Project proponents routinely divide developments into smaller components—separating roads from drill sites, expanding activities through amendments, or licensing adjacent properties independently. Despite clear legislative authority to prevent this practice, 43% of the assessments YESAB conducted during the study period involved project splitting. As a result, the full scope, scale, and intensity of mining activity is systematically underestimated, masking cumulative and long-term impacts on caribou.

### 3.3 Flawed methods for assessing and monitoring caribou impacts

YESAB's assessment framework relies on outdated and incomplete "Wildlife Key Area" (WKA) mapping, which excludes calving and post-calving habitat and omits entire herds. Herd population, range, and habitat data is non-existent or out of date for multiple herds in Kaska territory, limiting YESAB's capacity to accurately assess project overlap with caribou. In at least 14% and up to 19% of cases, YESAB incorrectly determined that projects did not overlap with caribou habitat, leading to the conclusion that no impacts would occur. All such projects were approved.

### 3.4 Cumulative effects are excluded and underestimated

Cumulative impacts are not formally assessed as project effects in Yukon but rather as contextual factors. Known adjacent developments, historical disturbances, and likely future projects are frequently excluded from YESAB analyses. This creates a misleading impression of abundant undisturbed habitat and significantly understates risks to caribou. YESAB's repeated attempts to trigger effects monitoring have been refused by YG.

### 3.5 Mitigation measures are vague, unenforceable, and lack evidentiary basis

YESAB found that 97% of assessed projects overlapping caribou habitat would result in significant adverse effects. Nearly all were deemed acceptable on the basis that these impacts were "mitigable," allowing approvals to proceed even where herds were declining and impacts were predicted to be severe. However:

- Over half of caribou-related mitigation measures are written by proponents as voluntary commitments.
- Most measures are vague, discretionary, and unenforceable.
- Monitoring plans are treated as mitigation despite being left to post-approval phases of the regulatory process and lacking thresholds for action and enforcement.
- YESAB acknowledges that there is no evidence demonstrating the effectiveness of mitigation measures, nor any feedback loop to evaluate whether mitigations work, and have repeatedly asked YG to address this issue.
- There is a lack of scientific and institutional evidence of caribou-related mitigation effectiveness and applicability in general, but mitigations continue to be applied in Yukon as though they eliminate, reduce, or control the predicted harms to caribou identified through the assessment process.

### 3.6 Reclamation assumptions are not borne out in practice

Many projects were approved on the assumption that disturbed habitat would be reclaimed after 5–10 years. In practice, reclamation often does not occur, licenses are renewed, and previously degraded habitat is then used to justify further approvals. YG has repeatedly renewed exploration licenses without confirming that required reclamation was completed or has allowed deferral of reclamation based on proponent plans for future development. The net result is a loss of caribou habitat that is not accounted for in the assessment and permitting process.

### 3.7 YESAB recommendations are overridden or neutralized

In the rare cases where YESAB recommended rejection or proposed strong, binding mitigations, YG either overrode the recommendation, weakened conditions, or allowed proponents to withdraw and reapply. This pattern undermines the integrity of the assessment process and public confidence in regulatory decision-making.

## Implications

Taken together, these findings indicate that Yukon's current impact assessment and regulatory framework functions as a de facto approval machine for mining in unceded Kaska territory, even where projects pose significant risks to caribou and Indigenous rights. The continued approval of projects under conditions of scientific uncertainty, declining herd health, and acknowledged uncertainty around mitigation effectiveness creates a high risk of irreversible harm and potential violations of obligations under the *Species at Risk Act (SARA)*, the *Yukon Environmental and Socioeconomic Assessment Act (YESAA)*, and Constitutional duties to Kaska Nations.

## Key Recommendations

The report identifies multiple recommendations for YESAB and YG to address these shortcomings, including:

- **End project splitting** by assessing related applications, amendments, renewals, and associated infrastructure as single projects, and by re-assessing projects in their entirety when scope, duration, or intensity expands.
- **Strengthen the assessment of caribou impacts** by treating all unceded Kaska Dena territory as caribou habitat, discontinuing reliance on Wildlife Key Areas as the primary basis for analysis, and ensuring potential calving, post-calving, rutting, migratory, and winter habitat impacts are considered in all assessments.
- **Define and enforce cumulative disturbance limits for caribou**, including precautionary thresholds for habitat loss and linear disturbance, and use these thresholds as binding decision-making constraints.
- **Implement a robust cumulative effects framework** in the territory, including regional cumulative effects studies carried out in partnership with Kaska Nations.
- **Centre Kaska law, knowledge, and consent in decision-making** and recognize Kaska-led assessment, stewardship, land-use planning, and Indigenous Protected and Conserved Area initiatives.
- **Pause further mining and exploration approvals in heavily affected caribou ranges** until regional cumulative effects assessments, land-use plans, and herd-level management frameworks are developed in partnership with Kaska Nations.
- **End approval-by-mitigation where mitigation effectiveness is unproven.** Require evidence that mitigations work in comparable contexts and ensure all mitigation measures are clear, binding, and enforceable.
- **Improve monitoring and enforcement of terms and conditions**, including ensuring reclamation and other mitigation measures are implemented before renewals or new applications

are considered. Explicitly account for permanent caribou habitat loss where development trajectories indicate ongoing or long-term land use.

- **Respect and implement YESAB recommendations**, particularly findings of unmitigable impact. End the practice of overriding rejection recommendations or allowing proponents to withdraw and re-apply without a formal refusal.
- **Align mining and land use legislation, regulation and policy with legal obligations** under the *Species at Risk Act*, Section 35 of the Constitution, and the UN Declaration on the Rights of Indigenous Peoples, including obligations to prevent further caribou decline and to uphold free, prior, and informed consent.

Without these reforms, the report concludes that Yukon's assessment and regulatory system will continue to enable incremental loss of caribou habitat, ongoing conflict with Kaska Nations, and long-term ecological and legal risk.

This report is based on analysis of publicly-available data. Research supported by the Social Sciences and Humanities Research Council (SSHRC), Northern Scientific Training Program, MITACS, Dena Cho Environmental, and Carleton University. Findings have been reviewed by RRDC, LFN, and the Liard Aboriginal Women's Society (LAWS). The authors welcome feedback on this report. Contact: [emilie.cameron@carleton.ca](mailto:emilie.cameron@carleton.ca).



# 1. Introduction and Context

The primary cause of woodland caribou population decline in Western and Northern Canada is extractive land use change driven by industrial forestry, mining, oil and gas, and large-scale hydro infrastructure.<sup>1</sup> Extractive land use change damages caribou habitat and makes caribou more vulnerable to predation and disturbance.<sup>2</sup>

In addition to direct habitat loss at the mining and exploration site, the impact of a project can extend several kilometers beyond its borders as caribou avoid noise, dust and other disturbances.<sup>3</sup> Caribou are also negatively impacted by the extensive linear infrastructure associated with mines and advanced exploration sites, including the construction of roads and transmission lines that result in habitat fragmentation, noise disturbance, disturbance to movement and migration, increased predation, increased harvesting pressure, and increased mortality due to collision.<sup>4</sup>

At least seven caribou herds in BC have been extirpated and all woodland caribou herds in BC and Yukon are listed under the federal *Species At Risk Act* (SARA), which mandates not only the prevention of extinction but also caribou recovery.<sup>5</sup>

Unceded Kaska Dena territory (see Figure 1) comprises 25% of present-day Yukon and is home to 11 woodland caribou herds.<sup>6</sup> It is also home to multiple toxic abandoned mines and extensive mineral exploration and mining activity. Mineral exploration and mining has been the main form of extractive land use in Kaska territory for decades, leading to significant pressure on several caribou herds.

The impact of proposed mining projects on caribou is assessed by the Yukon Environmental and Socio-economic Assessment Board (YESAB), a body created as part of the settlement of comprehensive land claim agreements in Yukon and the devolution of federal responsibilities for impact assessment to the territory. The two Yukon-based Kaska First Nations (Ross River Dena Council and Liard First Nation) have not signed comprehensive land claim agreements and object to YG's assertion of jurisdiction over their lands (which remain unceded), including the establishment of YESAB as an assessment body in their territory.

Despite their contention that YESAB and YG do not have jurisdiction to authorize extractive land use in their territory, and multiple legal challenges asserting that YG is not fulfilling its obligations to Kaska Nations

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<sup>1</sup> Festa-Bianchet et al. 2011; Environment Canada 2014; Johnson et al. 2015; Nagy-Reis et al. 2021; Hegel & Russell 2013; Govindaraj & Jones 2022; Elliott 2026.

<sup>2</sup> Wittmer et al. 2007; Environment Canada 2014; Nagy-Reis et al. 2021; Maltman et al. 2024.

<sup>3</sup> Johnson et al. 2015; Lessard et al. 2026; Boulanger et al. 2012.

<sup>4</sup> Vistnes et al. 2004; Vistnes et al. 2001; Wilson et al. 2016; Boulanger et al. 2020; Smith & Johnson 2023; Elliott 2026.

<sup>5</sup> Zimmerman et al. 2025.

<sup>6</sup> Unceded Kaska Dena territory spans present-day Yukon, British Columbia, and the Northwest Territories. There are four Kaska Nations with two in BC (Dease River First Nation and Kwadacha First Nation) and two in Yukon (Liard First Nation and Ross River Dena Council).

in its assessment and regulatory processes, Kaska Nations participate in YESAB reviews and have repeatedly identified caribou as a leading concern.<sup>7</sup> Kaska Nations have expressed strong opposition to projects with the most significant predicted impacts to caribou (gūdzīh in Kaska language) because of the threat these pose to both caribou and Kaska rights.<sup>8</sup> They contend that YG is not fulfilling its obligations to protect caribou from the harms of extractive development and have called for the reclamation and remediation of abandoned mines, protection of caribou calving grounds, centering Kaska knowledge in all assessment and decision-making processes, an end to free entry mining systems, and the creation of protected areas and stewardship structures to ensure caribou populations recover and thrive.<sup>9</sup> RRDC was successful in securing a staking ban in their territory in 2012. The ban was extended to all of Kaska territory in 2017.

Kaska Nations have also begun to establish their own assessment, consent, and land use planning processes and recently issued a declaration affirming the rights of the Finlayson caribou herd under Kaska law to exist, thrive, and be free from destructive industrial activity.<sup>10</sup> This declaration is in part a response to YG’s recent approval of the Kudz Ze Kayah mine (as well as adjacent advanced exploration sites) despite predictions that the mine could lead to the extirpation of the Finlayson caribou herd, infringe Kaska rights, and consistent opposition from Kaska Nations.

Concern about the impacts of mining on caribou in Yukon have also been expressed by government and professional biologists, conservation organizations, and academics. Biologists have argued that caribou habitat loss and fragmentation, significance thresholds, population and recruitment rates, and cumulative impacts are inadequately assessed, poorly characterized, or absent in

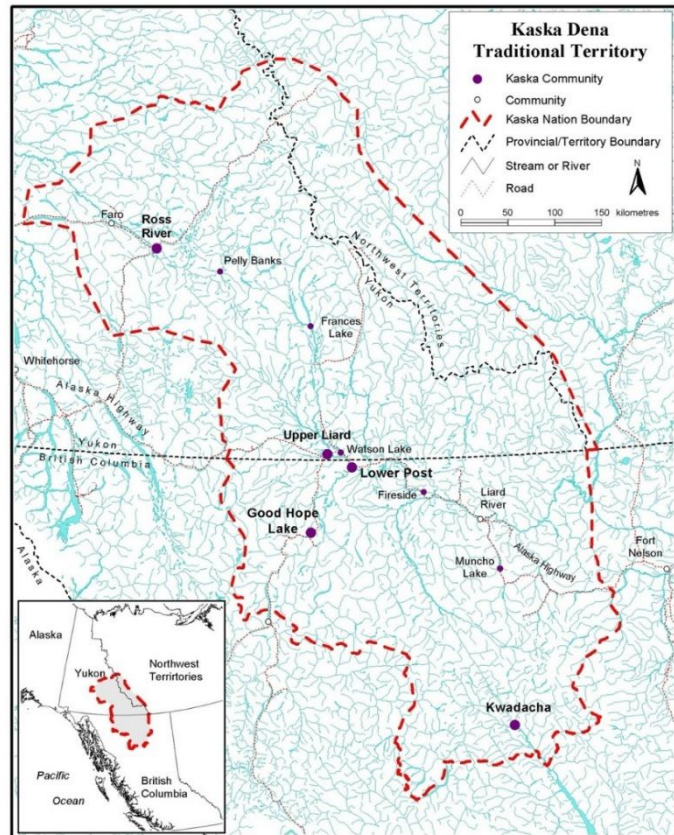


Figure 1: Kaska Dena Traditional Territory: Source, Kaska Dena Council

<sup>7</sup> *Ross River Dena Council v. Government of Yukon* 2012; *Ross River Dena Council v. Yukon (Government of)* 2024; *Ross River Dena Council v. Yukon (Government of)* 2024.

<sup>8</sup> “Caribou” in the Kaska language is spelled as gūdzīh (Frances Lake, Pelly River) or kudzīh (Ross River, Liard). Kaska opposition to various projects has been described in: Dick 2021; Gignac 2020, 2021; Hong 2024; Liard Aboriginal Women’s Society 2024.

<sup>9</sup> Ross River Dena Elders 2012; RRDC 2012, 2021; LFN 2014, 2021; LFN & Firelight Research Inc. 2020, 2021, 2025; Beckett 2025; Tū Łídlīni Dena Elders et al. 2025; Moodie et al. 2021; Barichello & Charlie 2022; Barichello 2019, 2024.

<sup>10</sup> The declaration is described in Dioré de Périgny & Tessier-Burns 2026. Ross River Dena Council (RRDC) has recently implemented the Tū Łídlīni Assessment Process (TAP), which it describes as “as a customized, community-based assessment process to address our Nation’s unique situation as a Yukon First Nation without treaty, based in our Tū Łídlīni Dena laws and customs, and driven by our Tū Łídlīni Dena’s deep Indigenous knowledge of the Ross River Area, including the wildlife and sensitive ecosystems therein” (RRDC 2025), and has begun to engage directly with proponents. Liard First Nation (LFN) has also established the Kaska-Centric Independent Peer Review Process, which has extensively critiqued YESAB’s assessment of caribou impacts (LFN & Firelight Research 2020). RRDC has been working on the development of an Indigenous Protected and Conserved Area (IPCA) in the Tū Łídlīni area, and signed an MOU with YG and Parks Canada in 2024 to complete a feasibility study of the area.



Kaska Dena Elder Testloa Smith teaches youth at a caribou camp near Finlayson Lake how to process caribou. Image source: Robby Dick in *The Narwhal*, used with permission.

the review of major mining projects in Kaska territory, and have also expressed concern about the cumulative impacts of multiple projects across woodland caribou ranges.<sup>11</sup> Caribou managers have called for range-level management, regional cumulative effects assessment, and the development and implementation of regional land use plans to protect caribou from the harms of extractive development.<sup>12</sup> None of these have been implemented in the region. Proposed extractive projects continue to be assessed by YG on a case-by-case basis through YESAB, and mining projects continue to be approved even when they are expected to significantly impact caribou and Indigenous rights.

How is this possible? On what basis is YG approving extractive development projects? Here we report on research examining the YESAB assessment process and YG decisions associated with all exploration projects (n=90) and mines (n=2) proposed in Kaska territory between 2006-2024 with potential impacts on caribou. We do not directly assess the adequacy of YESAB and YG's

engagement with Kaska jurisdiction, law, knowledge, and rights, but rather focus on how YESAB and YG rationalized the approval of mining projects that YESAB itself predicted could have potentially devastating impacts on caribou. Despite YESAB findings that the vast majority of projects overlapping with caribou habitat would lead to significant adverse effects for caribou (97% of projects), YESAB recommended approval for almost every project it assessed (96% of exploration projects and 100% of mines), and YG did not reject any exploration projects or mines over the study period. Our research identifies how serious impacts to caribou can be predicted within the YESAB assessment process but ultimately found insufficient to justify project rejection. We conclude by considering the implications of these findings for policy, legislative, and regulatory review processes currently underway in the territory.

<sup>11</sup> LFN & Firelight Research Inc. 2020; YESAB 2021a; Department of Environment (YG) 2025.

<sup>12</sup> Farnell 2009; Govindaraj & Jones 2022; Francis et al. 2013.

# 2. Methods

Our retrospective analysis looked at all YESAB assessments completed from 2006 to 2024 for proposed quartz mining activities in Kaska territory, and their associated YG decisions. Cases were identified through a search of YESAB's Online Registry (YOR). This resulted in an initial dataset of 135 projects with 4 at the Executive Committee (EC) level and 131 at the Designated Office (DO) level.<sup>13</sup> We reviewed the project titles, project proposals, comment submissions, evaluation reports or screening recommendations, and decision documents for all 135 projects. We removed any cases from the dataset that did not have evaluation and screening reports (either because the assessment was still active or because the proponent withdrew their application) and/or that did not identify "Wildlife and Wildlife Habitat" as a VESEC. This resulted in a dataset of 2 major mines assessed at the EC level and 90 exploration projects evaluated at the DO level. See Appendix A for the list of projects.

For each project at the DO level, we downloaded and analyzed YESAB's evaluation reports and YG's decision documents and licenses (where available). For each major mine assessed at the EC level, we downloaded and analyzed proponents' project proposals, YESAB's screening reports, and YG's decision documents. Our analysis examined the determination of project overlap with caribou, significance determination of project effects, whether those effects were mitigable, YESAB's project recommendation, and YG's final decision. A detailed description of methods used to analyze and code the data available upon request.<sup>14</sup>

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<sup>13</sup> As of January 30, 2025.

<sup>14</sup> Full research methodology is described in Doyle 2026. This methodology has also been deployed in multiple peer-reviewed studies, including Cameron & Kennedy 2023, Collard et al. 2020, and Bernauer & Cameron 2026.

# 3. Findings

## 3.1 Approval Rates

As shown in Figure 2, YESAB recommended approval for 86/90 (96%) quartz exploration projects at the DO-level over the study period.<sup>15</sup> YG issued decision documents for 86 projects and approved all 86 (100%). There were two mines assessed at the EC-level, Mactung and Kudz Ze Kayah. Both were recommended for approval and ultimately approved (although legal challenges to the Kudz Ze Kayah decision are ongoing).

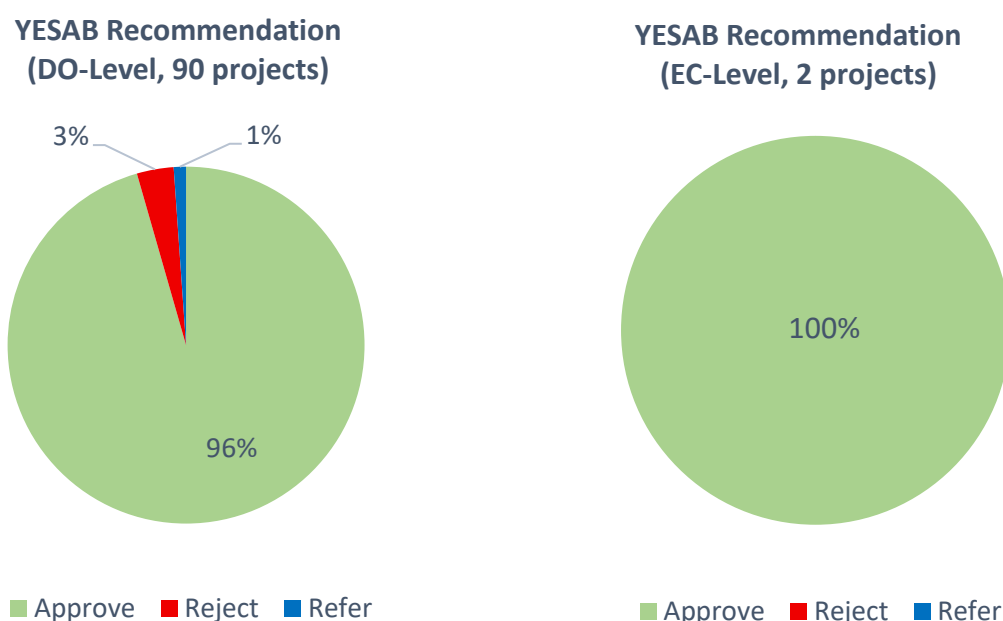


Figure 2: YESAB recommendations for assessed projects in Kaska territory, 2006-2024. There were 90 projects assessed at the DO level and 2 assessed at the EC level

There were 3 projects at the DO level that YESAB recommended not proceed based on significant and adverse effects to caribou. The first was for the upgrading of the Nidd Road in 2012 to support an already permitted exploration program at MacMillan Pass. YESAB's recommendation was not accepted by YG; the project was approved, although the proponent did not end up completing the work.

The second recommended rejection, in 2020, was for the same property, this time for a Class 4 exploration program at MacMillan Pass (Nidd) including an access road. This application was withdrawn by the proponent (Fireweed) before YG issued a decision document, but the proponent immediately submitted a Class 3 project application with a smaller scope (removing the road) which was ultimately approved.

<sup>15</sup> 88 of these were Class 3 or 4 mineral exploration projects. 1 assessment was for reclamation work at Sä Dena Hes, and 1 was for the Silver Hart mine, which was referred to the EC level. See Appendix A.

The third recommendation to reject was for the Fyre Lake/Kona property in 2021. Here, YESAB sought the expertise of wildlife biologist and landscape ecologist Dr. Fiona Schmiegelow to evaluate the various sources of information received on caribou, including the proponent's surveys and monitoring data, comments from RRDC and LFN, and YG's own caribou data. YESAB's recommendation against the project was based on Dr. Schmiegelow's assessment and submissions by Kaska organizations documenting their concerns and knowledge regarding impacts on caribou calving and rutting. The application was withdrawn by the proponent (BMC Minerals Ltd) before YG issued a decision. The proponent resubmitted the project in November 2025 and it is currently under YESAB review.

In effect, none of the exploration projects YESAB recommended against over the course of the study period were rejected by YG; YG either overrode YESAB's recommendation or proponents withdrew and reapplied.

Only two mining projects were assessed by the Executive Committee during the study period: the Mactung mine project (currently owned by Fireweed Metals Corp.), and the Kudz Ze Kayah project (owned by BMC Minerals, Ltd.). Mactung was approved in 2014 but was not built.<sup>16</sup> Kudz Ze Kayah is strongly opposed by both LFN and RRDC, in large part because of the threat it poses to the Finlayson caribou herd, but was recommended for approval by YESAB in 2020. The federal government expressed concern about the project's impacts on caribou and Kaska rights in its decision to refer the initial assessment of the project back to the Executive Committee for reconsideration. YESAB again recommended approval despite a split vote regarding the mitigability of caribou impacts, and YG and the federal government approved the project in 2022. This approval has been subject to multiple lawsuits alleging a failure to adequately consult Kaska Nations. A final decision document relating to additional mandated consultation was issued in April 2026, approving the mine. RRDC characterized the approval as a "severe and unjustified infringement of our constitutionally protected Kaska Aboriginal Title and Rights and a violation of Canada's commitments under the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP)."<sup>17</sup>

In sum, our analysis shows that **96% of all mining projects in Kaska territory that were assessed by YESAB were recommended for approval** (88/92 projects). **YG approved every project for which it issued a decision document** (86/86 DO-level mining projects and 2/2 EC-level mining projects, 100%).

## 3.2 Project splitting prevents full assessment of project impacts

Project splitting involves the division of a single project into smaller, discrete components that are assessed separately by an assessment or regulatory body. While each discrete component assessed in isolation may appear to have small impacts, together they can lead to much more significant impacts. Assessment of the entirety of a proposed operation is required in order to accurately determine impacts.

Project splitting was anticipated in the writing of the *Yukon Environmental and Socio-Economic Act* (YESAA), and YESAB is authorized to combine separate submissions into a single project to prevent this practice. YESAB is also authorized to assess activities that it considers likely to be undertaken in relation to a project, even if they are not identified by the applicant.

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<sup>16</sup> The proponent for the Mactung mine project, North American Tungsten Corp., went bankrupt in 2015 after the mine was approved by YG. The Mactung property (now under the ownership of Fireweed Metals) is currently being developed under a 10-year Class 4 exploration license approved in 2018.

<sup>17</sup> Tukker 2026.

Despite YESAB's legislative authority to prevent project splitting, it occurs frequently in the assessment and regulation of mining activities in Kaska territory. Across the 92 assessments reviewed, we identified 40 assessments (43%) at 13 different properties (out of 45 total properties, 29%) where project activities were split either through separate applications or amendments to existing applications.<sup>18</sup>

For example, multiple exploration projects in Kaska territory have been approved by way of separate assessments of the exploration site itself and its associated road infrastructure. Although advanced exploration sites often rely on access roads to be feasible, these activities are frequently assessed and permitted separately. This was the case with the Nidd Road connecting the Macmillan Pass area to the North Canol Road. The exploration site was first assessed and approved in 2011 after YESAB determined there was no overlap between the project site and caribou (this determination was incorrect; see MacPass (Oro) project in Figure 4). Seven months later, the proponent applied for a permit to upgrade the Nidd Road, which was found to overlap with the Redstone caribou herd's range and pose more significant risks in terms of disturbance, predation, and increased access. The road upgrade was subsequently approved by YG despite YESAB recommending against it.

There are also multiple cases of linear infrastructure being added to a permitted project by way of project amendments (rather than new applications). The 3 Aces property, permitted for Class 3 operations in 2011, vastly expanded the road network associated with the property via amendments in 2015 and 2016. The initial Class 3 approval included 5 km of new on-claim roads, and impacts to caribou were considered significant but mitigable because of the proponent's commitments to conceal the access entrance by piling logs, debris, and vegetation; decommission and reclaim the access roads; minimize the width of the roads to the extent possible; and implement a no-hunting policy for workers. In 2015, 3 Aces was approved via amendment to construct 15 km of on-claim roads. The impacts of the roads on caribou were not considered significant because the roads (which ran on one side of the Little Hyland River opposite a public road) were "partially hidden from view," which was deemed sufficient to deter people from accessing the exploration road network, despite the possibility of ATVs fording the river.<sup>19</sup> After the approval of this amendment, the proponent applied for another amendment to construct a temporary clear-span bridge over the Little Hyland River, connecting the property's 15 km road network on the west side of the river with the Yukon highway system. Although the bridge's installation would no longer render the road network "partially hidden from view" and would significantly increase access to the on-claim roads, the adverse effects from increased access on caribou were found mitigable by YESAB. Once the bridge was approved, the proponent submitted another amendment in 2016 to increase the quantity of new roads by 30 km, extending 10 km further north into remote areas of the property. These were approved. In effect, a remote exploration site was converted into a much larger operation directly connected to Yukon's highway system, with significantly more impacts on caribou habitat, disturbance, predation, and mortality, by way of a series of amendments, none of which considered these impacts as a whole.

There is also evidence of project splitting involving significant expansions to project footprint and seasonality. The Keg property was initially assessed and approved for 53 claims in 2010, with a footprint of 11 km<sup>2</sup>. The property was incorrectly determined not to overlap with caribou (see Figure 4), and thus no impacts on caribou were identified as part of the assessment process. Upon approval, the proponent immediately applied for an amendment adding 2963 claims, an expansion of 589 km<sup>2</sup> (see Figure 3). The amendment was approved.

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<sup>18</sup> 66/92 (72%) assessments in the dataset were for 19 properties. Of these 66, 40 assessments at 13 sites involved split project activities, which we defined as pursuing separate assessments for different elements of the project that were spatially or temporally proximate (i.e., different assessments for an exploration site and an access road pursued within the same time period), or significantly expanding the project's spatial or temporal scope via amendments.

<sup>19</sup> YESAB 2015a, 28.

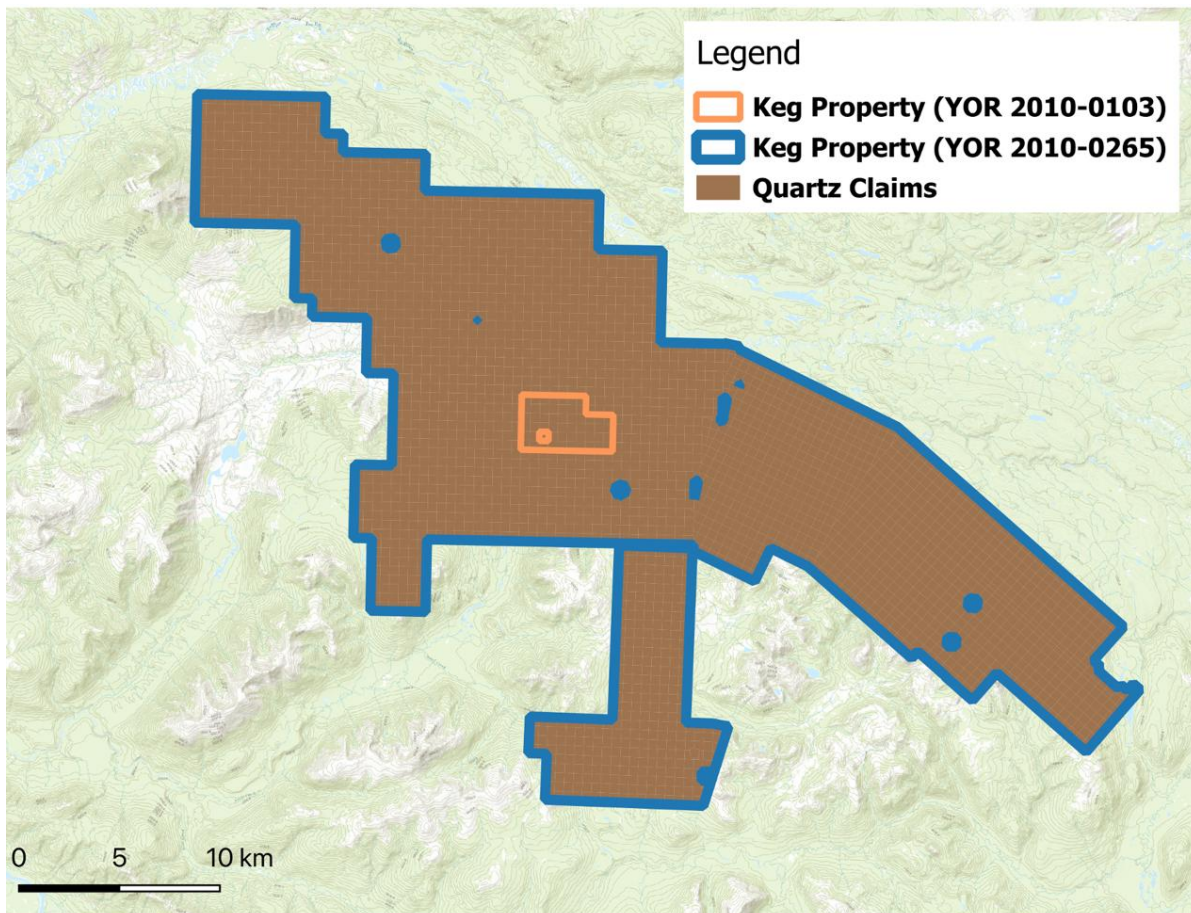


Figure 3: Project footprint associated with Keg property. Application 2010-0103 was approved in 2010 and immediately amended to include 589km<sup>2</sup> additional claims (YOR 2010-0265).

An initial exploration permit for the Kudz Ze Kayah property was granted in 2015 for seasonal exploration activities, 6 months of the year (May 1 to October 31) over 5 years. The property overlaps with mapped fall rutting habitat and unmapped calving and post-calving habitat for the Finlayson caribou herd (see section 3.3), which was experiencing long term population decline at the time of the application, and the site access road overlaps with the mapped winter range of herd. As no project activities were planned in the winter, the adverse impacts from using the access road and disturbances at the property were scoped out of the assessment. Despite its overlap with crucial habitat for the Finlayson herd, YESAB determined that disturbance to caribou would be mitigated by the seasonality of the operation, restrictions on airborne work, and progressive reclamation. Within two years, BMC Minerals had secured approval, via amendments, to conduct year-round activities for 10 years. In effect, the restrictive operating conditions that justified the initial approval were undone by a series of amendments, none of which involved comprehensive assessment of the full scope of project activities.

There is also evidence of project splitting involving a single exploration company pursuing exploration licenses for multiple adjacent properties, each of which is assessed separately, and then consolidating these into a single operation. At the same time as BMC was pursuing the licensing of its Kudz Ze Kayah property, for example, the company applied for permits to explore at the adjacent Kona, Pelly, and GP4F sites. The problem here is not that exploration companies wish to phase their exploration work or investigate

the mineral potential at multiple, adjacent properties. It is that YESAB does not assess these activities as a whole, and that proponents repeatedly secure approval for smaller projects specifically because of their supposedly small, mitigable impact on caribou even when adjacent cumulative activity is expected or already underway (see also section 3.4 on cumulative impacts).

These forms of project splitting have profound implications for the assessment and management of the impacts of mining on caribou. They do not allow assessment bodies, intervenors, and regulators to fully assess the actual impacts of mining on caribou. **Project splitting allows proponents to convert approval of very small, minimally disruptive, temporally constrained, and geographically isolated exploration activities into advanced exploration sites with significantly larger footprints, extensive linear infrastructure, and much more disruptive impacts on caribou, without the same scrutiny that would be applied if these activities were considered in their entirety.**

### 3.3 Methods for assessing impacts to caribou are subjective, partial, and flawed

The procedure through which YESAB assesses impacts to caribou follows three sequential steps: determining overlap, determining significance of impact, and determining whether significant project effects are mitigable (see section 3.5 on mitigations). Because YG has never established thresholds for the extent and magnitude of industrial or extractive activities that are tolerable for caribou, YESAB's determination of acceptable levels of impact or significance for caribou rests on a qualitative evaluation of project effects. YESAB's capacity to assess project impacts is also limited by the data it has access to. Herd habitat data is more than 25 years out of date or non-existent for 8/11 herds in Kaska territory, and YG does not conduct effects monitoring studies to determine the impacts of approved developments on caribou.

19/90 (21%) assessments of exploration projects found no overlap between project activities and caribou habitat. **This determination was inaccurate**; according to Environment Canada, *all* of Kaska territory should be considered caribou habitat, even if it falls outside of mapped herd ranges.<sup>20</sup> Not only are mapped ranges approximations and subject to change, they are also based on incomplete and often out-of-date survey data. But even if mapped herd ranges are used to determine overlap, at least 13, and up to 17, of the 19 projects YESAB found to be outside of caribou habitat were, in fact, within the mapped ranges of various herds (based on range data used by YG and YESAB at the time of the assessment; see Figure 4), representing 14-19% of all assessed projects. Based on these inaccurate overlap determinations, YESAB determined there would be no impacts to caribou, and recommended approval. All 19 projects were subsequently approved.

For projects whose activities were found to overlap with caribou, almost all assessments determined that project impacts would be significant (69/71 exploration projects; 2/2 mines). However, the methods for determining what kinds of impacts caribou would experience, and how these impacts might be mitigated, were flawed.

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<sup>20</sup> Environment Canada 2012.

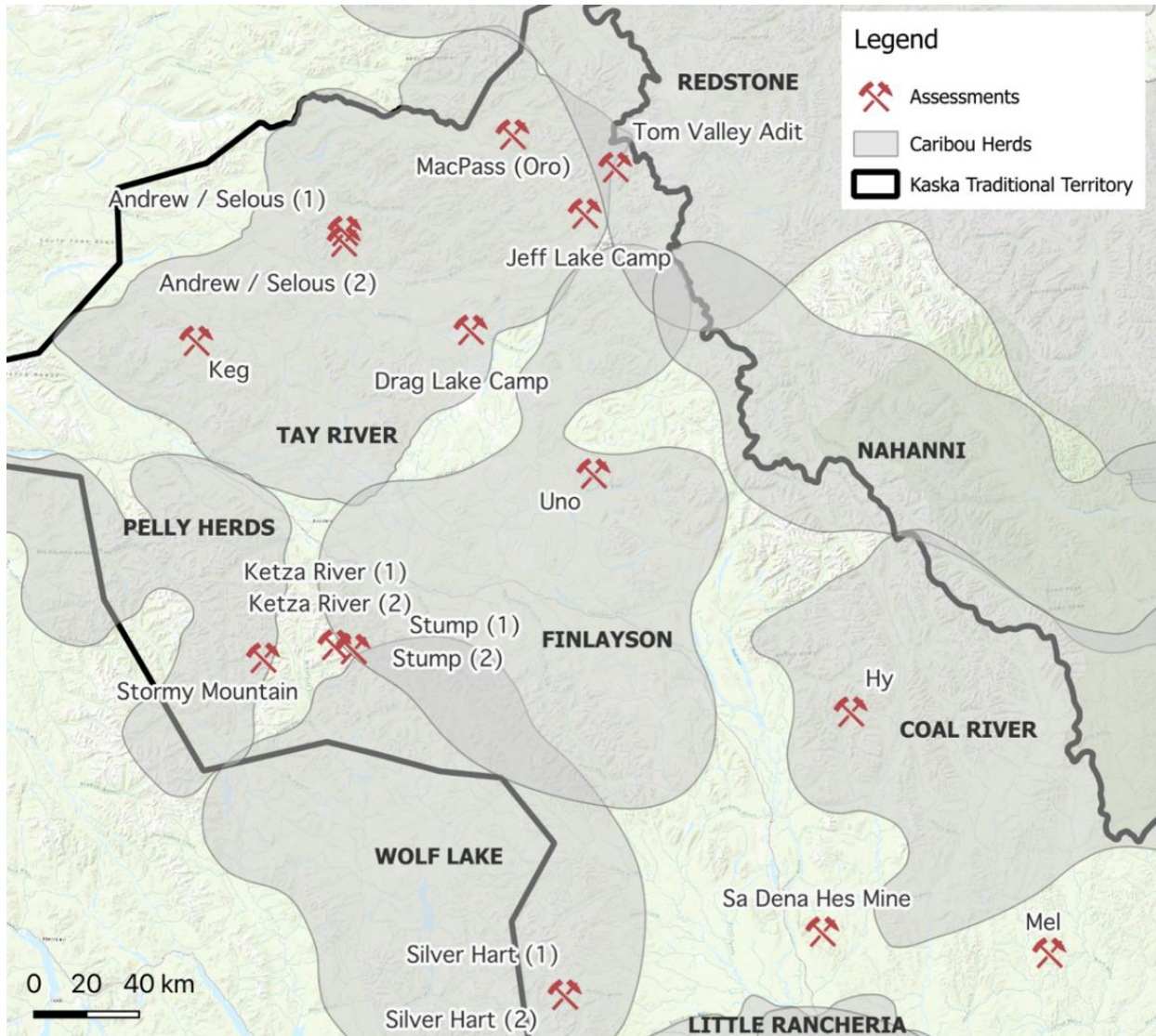


Figure 4: Location of 18/19 projects that were determined by YESAB not to overlap with caribou (unable to verify location of *Northern Lights Uranium Project – Project Number: 2007-0165*). This map was created from publicly available spatial data accessed through GeoYukon, which contains information licensed under the Open Government Licence – Yukon, and new spatial data derived from cross-examining map packages and documents available on the YESAB Online Registry and satellite imagery.

One of the most significant flaws in YESAB’s assessment of impacts to caribou is its use of “wildlife key areas” (WKAs) instead of herd ranges to assess the interaction between project activities and caribou. WKAs are spatial data compiled based on observations of caribou (during aerial surveys, for example) at particular moments in their life cycle or key habitat features such as mineral licks. A recent study commissioned by YG found that the WKA inventory is outdated, incomplete, and inaccurate.<sup>21</sup> For example, there are no WKAs for 4/11 herds in Kaska territory and fewer than 5 mapped WKAs for 3 additional herds.

<sup>21</sup> Prairie Research Associates 2024.

The lack of WKAs for a herd does not mean that caribou do not use these areas, but rather that YG has not sufficiently surveyed the region.

Most significantly, **the WKA inventory explicitly excludes calving and post-calving habitat**, based on the argument that it is geographically extensive and therefore impractical to map as a WKA.<sup>22</sup> As a result, **YESAB has no systematic means of assessing whether proposed exploration projects overlap with calving and post-calving habitat** – the most vulnerable phase of caribou life cycles and when they are most acutely prone to disturbance.

Despite these flaws, WKAs drive YESAB's assessment of both project overlap and project impacts. For example, the Bolt property was approved for a Class 3 exploration program in 2010 for activities to occur for 5 years from June to October. Despite being located within calving and migratory areas for the Finlayson caribou herd, a spatial and temporal overlap that was explicitly flagged by RRDC in its comment submissions to YESAB, the proponent was only required to develop flight routes that avoided the mapped WKA for fall rutting.

Recently, YESAB has begun invoking s. 110 of YESAA in its recommendation reports to prompt YG to study the effects of a particular development on caribou.<sup>23</sup> In its 2019 assessment of the Silver Hart property, for example, YESAB recommended:

Government of Yukon shall conduct studies to determine or discern a) whether induced traffic along Silver Hart Road will exacerbate harvest pressure on moose and caribou, b) the extent of increased pressure, and c) how such impacts can be effectively managed or mitigated. Government of Yukon should engage with affected First Nations (i.e. Liard First Nation and Teslin Tlingit Council) in developing local wildlife management plans that specifically address concerns related to harvest pressure.<sup>24</sup>

This recommendation was rejected by YG because it “already monitors and studies wildlife populations through mandatory harvest reporting and through wildlife population surveys.”<sup>25</sup>

At the mine stage, proponents prepare their own studies of impacts to caribou. Notably, calving was excluded from BMC's baseline studies and initial project proposal for the Kudz Ze Kayah mine because it claimed that the dispersal strategy of northern mountain caribou meant there was little likelihood of interaction with the project and there is “no meaningful way to assess their distribution and behaviour.”<sup>26</sup> BMC claimed all project effects on the Finlayson caribou herd were of low magnitude, including indirect loss of calving habitat. RRDC, LFN, YESAB, and Environment and Climate Change Canada all found this determination to be inaccurate and misleading. Federal decision authorities found caribou impacts (and associated impacts on Indigenous harvesting rights) to be significant enough that it directed the Executive Committee to reassess its recommendation in 2021, a highly unusual decision both in Yukon and in other Canadian jurisdictions, but the mine was ultimately approved.

The proponent for the Mactung Mine, North American Tungsten Corporation, claimed that the mine itself and associated clearing and construction posed a low risk to caribou because there was other suitable

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<sup>22</sup> YESAB 2015a.

<sup>23</sup> Section 110 of YESAA reads: “When a designated office, the executive committee, a panel of the Board or a joint panel recommends to a decision body that a project be allowed to proceed, with or without terms and conditions, it may recommend that a project audit or that effects monitoring be conducted in respect of the project.”

<sup>24</sup> YESAB 2019, 31.

<sup>25</sup> YG 2019, 3.

<sup>26</sup> BMC Minerals Ltd 2017.

habitat in the region and any adverse effects would be neutralized through reclamation. The Executive Committee disagreed, concluding that the entire mine site area would no longer be suitable calving and post-calving habitat during the mine's 16-year duration, and potentially past the reclamation phase. Despite this, the mine was recommended for approval on the condition that a monitoring program and adaptive management plan be established (see section 3.5 on mitigations).

## 3.4 Cumulative effects scoped out and distorted

YESAB assesses projects on a case-by-case basis, meaning **cumulative effects are not included in the scope of the assessment**. YESAB is empowered to consider cumulative effects as a contextual factor early in the assessment process, but these interactions are not directly assessed as project impacts. This is a notable contrast from the Nunavut, NWT, BC, Alberta, and federal impact assessment frameworks, all of which require the assessment of cumulative effects in individual project assessments.<sup>27</sup> Because YG is also not assessing the cumulative effects of extractive development on wildlife, there is currently no cumulative effects framework operative in Yukon.

Whether or not cumulative effects are formally assessed at the project level, however, there is evidence to suggest that **YESAB is not including known, adjacent land use in its assessment of caribou impacts**. For example, a DO-level assessment of the Fyre Lake property in 2014 minimized the adverse effects the project was anticipated to have on the Finlayson caribou herd by calculating that the project site only covered 0.002% of an entire mapped WKA.<sup>28</sup> This calculation was reinforced visually in a map showing the project footprint relative to available habitat (see Figure 5).

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<sup>27</sup> See Crist and Reid 2022.

<sup>28</sup> YESAB 2015b, 7.



Figure 5: Map prepared by YESAB in its assessment of the Fyre Lake/Kona property. See YESAB, *Fyre Lake Exploration* (2015b): 7. YESAB concluded: “considering the size of the FCH WKA” depicted in the map that there would be no interaction between the project’s residual effects and the “residual effects from other activity that is beyond the boundaries of the project claims” (p. 32).

What is excluded from this map, however, is that there were several active exploration projects and a mine operating within the boundaries of the mapped WKA at the time of the assessment. Additionally, YESAB’s map did not include adjacent active mineral claims that may have had minor activities ongoing, historical mineral claims that resulted in unknown levels of disturbed habitat, and mapped linear surface disturbances. Using YG’s own publicly available data from the same year, we recreated the map used in the assessment with the excluded data to visualize the known “existing conditions” of the affected herd across its mapped habitat (see Figure 6).

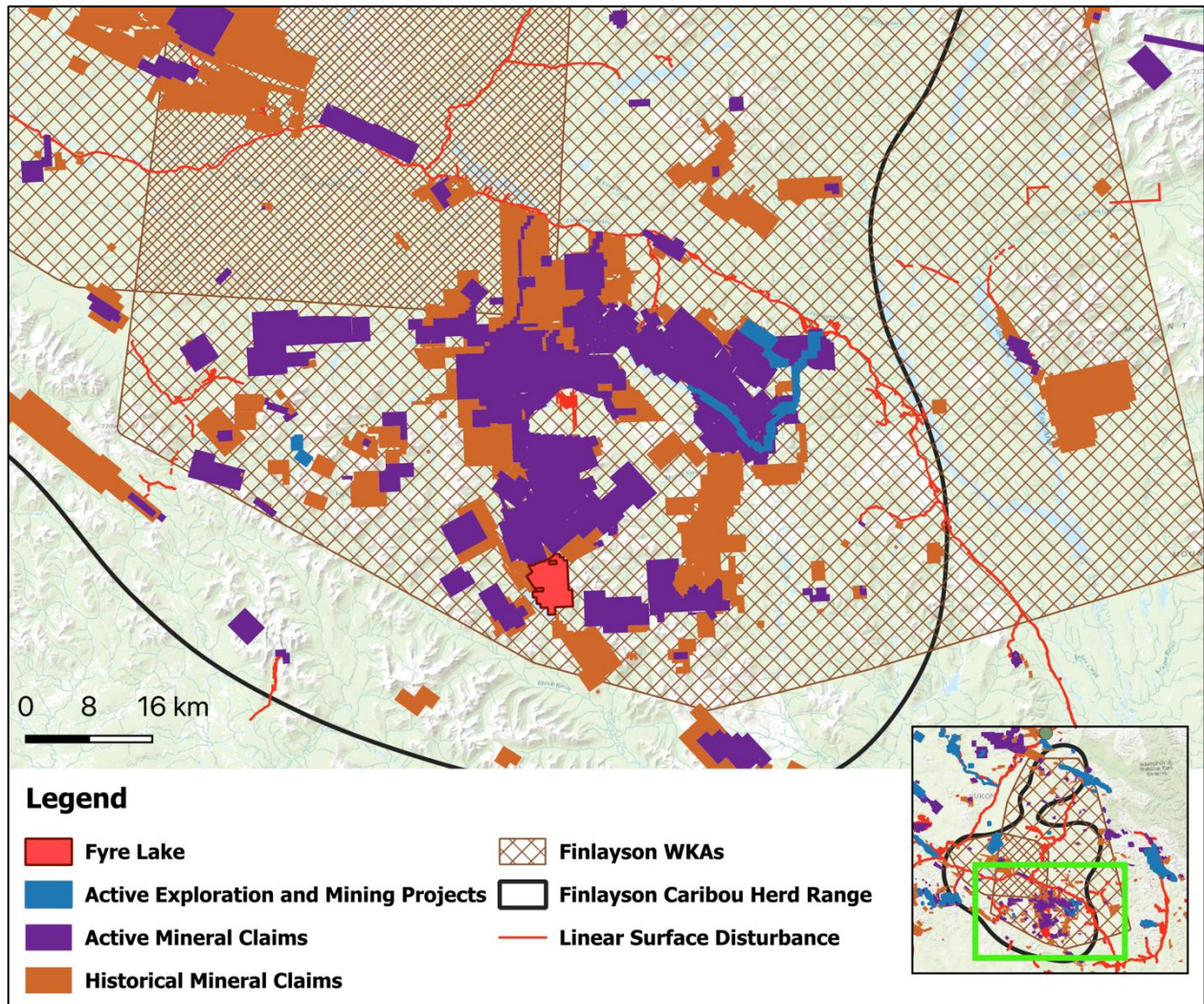


Figure 6: Land use and disturbance within Finlayson WKA, Fyre Lake property, based on data available in 2014. This map is adapted from several spatial databases accessed through GeoYukon which contains information licensed under the Open Government Licence – Yukon, including Historical Mineral Claims – 50k (2014), Quartz Claims – 50k (2014), and Quartz Land Use Permits - 50k (2019) by the Department of Energy, Mines, and Resources; Surface Disturbance Linear Features (2022) by Geomatics Yukon; and Caribou Herd Ranges – 250k and Wildlife Key Areas - 250k (2014) by the Department of Environment.

The recreated map, which represents baseline conditions with the data available to YESAB at the time of the assessment, clearly demonstrates that the Finlayson herd did not have extensive undisturbed habitat to use for its life functions. YESAB's claim that caribou had access to a vast, undisturbed WKA simply does not hold. Through selective inclusion of available geospatial data, the actual scope of past, present, and future activity impacting caribou within the area was scoped out of YESAB's analysis. The project was approved in 2014.

## 3.5 Mitigation measures vague, discretionary, lack evidentiary basis

The assessment of 69/90 exploration projects and 2/2 mines identified significant adverse impacts on caribou as a result of project activities (77% of all assessed projects in the dataset). These are the projects that were expected to have the most significant impacts on caribou habitat, predation, mortality, and disturbance. Despite identifying significant impacts, almost all of these projects were recommended for approval by YESAB (66/69 exploration projects and 2/2 mines). Mitigation measures were essential to these recommendations: they are the primary tool used within impact assessment to convert significant negative predicted impacts into acceptable, insignificant effects.<sup>29</sup>

There were 66 exploration projects that YESAB determined would have significant but mitigable adverse effects on caribou. These resulted in the recommendation of 1053 caribou-related mitigation measures (averaging 16 mitigation measures per project). The recommended mitigation measures were expected to “eliminate, reduce or control” the adverse effects of the project on caribou, rendering the impacts no longer significant.

A striking proportion of these measures (57%) were written by proponents and accepted by YG as “proponent commitments.” In effect, **more than half of the mitigation measures applied in the assessment and permitting of exploration projects in Kaska territory are written by mining companies and treated as voluntary commitments rather than binding regulatory conditions.**

Whether written by proponents, YESAB, or YG, the majority of mitigation measures use vague and discretionary language which allows proponents significant latitude to determine when, where, and how mitigative actions are implemented. Some measures simply commit to effort: e.g., “every effort shall be made to avoid disturbing wildlife” (Hyland property, 2017), “care will be taken to minimize disturbance to wildlife encountered along access routes” (Mel property, 2015), or “trails will be constructed to consider mammal (bears, moose, caribou) habitats” (Grew Creek, 2022). Others are weakened through conditional or discretionary phrasing: e.g., a mitigation measure might require proponents to avoid flying below a certain height (in order to avoid sensory disturbance to caribou) ‘where conditions permit,’ ‘where possible,’ ‘when safe to do so,’ or ‘to the extent possible.’ These qualifications limit enforcement and weaken the measure’s effectiveness.

Although less common, there are cases where YESAB has proposed clear, binding, and specific language for a particular mitigation measure, but YG subsequently rejected or varied the phrasing at the regulatory stage to render it weaker, more discretionary, and more difficult to monitor and enforce:

- “No helicopter flights in area NW of claim block until after June 15 due to known calving and post calving area for Tay River caribou herd” (Fairweather, 2008) [Varied by YG to insert “*where possible*” after June 15]
- “The Proponent shall plan to avoid carrying out their helicopter exploration activities during the critical periods for caribou, which in this area is May to July for calving and post-calving and mid-September to mid-October for rutting.” (Kudz Ze Kayah, 2015) [Varied by YG to add “*if caribou are present within 1 km of the active work area during these times, helicopter exploration activities shall cease until the caribou have left the area*”]

<sup>29</sup> Collard et al. 2020; Cameron & Kennedy, 2023.

- “The Proponent shall avoid flights and activities in areas identified as caribou calving areas (from YG location database provided to the Proponent) between May 15 and June 15 of each year” (Pelly 2016). [Varied by YG to “The proponent shall avoid flights and activities between May 15-June 15 of each year, *where calving caribou are observed*”]
- “Flights shall be avoided over areas that caribou are using during sensitive times of the year (i.e. calving, post-calving, and rutting). In addition, flight paths shall be planned to avoid sensitive areas if frequent flights to a particular destination are anticipated.” (Andrew/Selous 2018) [Rejected by YG, no replacement proposed]

These variations to YESAB mitigations convert clear restrictions on proponent activities into optional actions based on feasibility (“where possible”) and proponent judgment (“if caribou are observed”), making them almost impossible to monitor and enforce, and significantly weakening the protections they were intended to provide.

More than a third of all mitigation measures in the data set (34%) were not, in fact, direct mitigation measures. Rather, they involved commitments to develop management and planning measures, implement corporate policies on employee conduct, and/or record observations and encounters with caribou. Although these measures may be valuable, they do not directly eliminate, reduce, or control the impact of extractive development on caribou. This is particularly significant in cases where development of a caribou monitoring plan is proposed as the main mitigation measure justifying project approval (a common mitigation for projects that are expected to have significant and otherwise unmitigable impacts on caribou). Proponent commitments to develop a monitoring plan may ultimately lead to a plan, and that plan’s implementation might lead to the identification of impacts on caribou, but unless the monitoring plan includes binding actions that would be triggered by specific monitoring outcomes or thresholds (e.g., cessation of work if caribou are observed in specific numbers or at specific periods of their life cycle), the plan does not in fact mitigate impacts on caribou. Some projects are approved based on commitments to develop a monitoring and management plan in the post-approval phase, and it is assumed by regulators that plans will be robust and that the information acquired via monitoring will lead to adaptive management. However, there is no evidence that monitoring plans actually result in any of these outcomes. In fact, there is evidence in many jurisdictions of proponents resisting adaptive management and refusing to take action in the face of clear adverse impacts on caribou.<sup>30</sup> **Monitoring is not itself a mitigation, but it is treated as one in Yukon’s assessment and regulatory process.**

In fact, YESAB lacks evidence of the effectiveness of *any* mitigation measures; this has been acknowledged in multiple assessments and identified as a serious barrier to effective management of the impacts of extractive development on caribou:

The mitigation measures proposed by proponents and recommended for past projects are expected to be effective when incorporated. However, whether this is the case is not clearly known as...there is no feedback loop to the Designated Offices to provide information on the effectiveness of measures put in place.<sup>31</sup>

YESAB not only lacks evidence of mitigation effectiveness because of the lack of reporting on mitigation implementation in Yukon and lack of feedback loops between YG and YESAB. They also lack evidence for mitigation effectiveness because it largely does not exist. Although the negative impacts of mining on caribou are well-documented, there is a lack of scientific or government evidence establishing the effectiveness of specific mitigation measures or mitigation measures as a whole. YESAB recently

<sup>30</sup> Bernauer et al. 2023.

<sup>31</sup> YESAB 2022a, 26.

acknowledged that “the effectiveness of mitigation measures, although assumed, is unknown” in its assessment of the proposed exploration program at the Kona property, which, in this case, justified a recommendation not to approve the project (the project was resubmitted in 2025 and is currently under review).<sup>32</sup>

YESAB also acknowledged in its assessment of the Kudz Ze Kayah mine that it had little confidence in the effectiveness of most caribou-related mitigation measures aimed to minimize impacts to caribou habitat: “Habitat loss due to the mine’s footprint, including its open pit, waste storage facilities and [water management ponds], will be permanent and irreversible. Beyond direct reductions in habitat loss, the effectiveness of most mitigation measures at reducing habitat disturbance during operations is largely unknown.”<sup>33</sup>

These are profound admissions on the part of YESAB – in effect, they acknowledge that the main tools used to justify the approval of projects with predicted, significant adverse impacts on caribou (mitigation measures) have no evidentiary base underpinning their applicability and effectiveness, and no institutional reporting mechanisms underpinning decision-making. And yet mitigations continue to drive project approval. Given that there is neither scientific nor institutional evidence of the effectiveness of mitigation measures in protecting caribou from the harms of extractive development, their ongoing application as *though they do protect caribou* represents a significant risk.

The significance of approval-by-mitigation and particularly the use of monitoring commitments as mitigation measures has been particularly controversial in relation to the Kudz Ze Kayah project. The federal government initially returned the project to YESAB specifically because of concerns over caribou and associated Indigenous rights. YESAB’s Executive Committee members were divided in their 2021 recommendation, with half of the members finding that the project’s impacts to caribou were *not* mitigable. The project has nevertheless been approved by YG and Canada multiple times (following two periods of mandated additional consultation with Kaska Nations). A key mitigation measure used by the Decision Bodies to justify their approval of the mine is the formation of a Finlayson Caribou Herd Oversight Committee (FCHOC) to monitor the effects of the mine on the Finlayson herd. LFN and RRDC have both made clear the inadequacy of this measure, including concerns that there are no binding actions triggered by monitoring results and no mechanism to examine cumulative effects on caribou. RRDC specifically requested that a population threshold for the FCH be established that would trigger revocation of the project’s approval. The most recent YG/federal decision claimed this was unwarranted and found that the project’s mitigation measures “prevent, minimize and mitigate Project-related effects on the FCH” and that Kaska “concerns are formally embedded in project governance.”<sup>34</sup> Kaska Nations strongly contest the finding that project effects are mitigable and argue the mine’s approval severely infringes their rights and title as well as Canada’s obligations under UNDRIP.

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<sup>32</sup> YESAB 2021a, 59.

<sup>33</sup> YESAB 2020, 119.

<sup>34</sup> YG, Natural Resources Canada, & Fisheries and Oceans Canada, 2026, 68-69.

## 3.6 Failure to meet reclamation commitments results in habitat loss

It is routinely argued within YESAB assessments that negative impacts to caribou habitat can be mitigated by way of reclamation activities: backfilling trenches, salvaging and replanting the vegetative mat, decommissioning roads and trails, etc., either throughout the permitted period or at its conclusion. Indeed, numerous exploration applications with known impacts to caribou were found to be mitigable because they would stop within 5 or 10 years, and the habitat would be restored via reclamation activities.

For proponents seeking to advance their operations to higher classes of exploration or mine development, however, reclamation of disturbed habitat makes no sense – there is no point in reclaiming clearings, roads, and trails when their operational utility persists for ongoing and future work. This has led to “a history of reclamation not occurring at different properties in the southeast Yukon.”<sup>35</sup> YESAB has identified this as a weakness in its assessment of adverse effects and their mitigability:

YESAB is just over 15 years old and many mineral exploration projects were initially assessed with a temporal scope of 5-10 years. ... As projects are coming back into the process for renewals, a noticeable trend seems to be that of not carrying out reclamation before the expiry of authorizations. Rather these activities are being carried over into renewed proposals/authorizations. The challenge here is that often the reclamation of activities...are considered when determining significance.<sup>36</sup>

In effect, YESAB is acknowledging here that projects with significant predicted impacts to caribou have historically been approved based on the assumption that project activities would conclude after the permitted period and the habitat restored via reclamation. Reclamation commitments were important factors in converting “significant” adverse impacts to mitigable and therefore “not significant” in these assessments. The possibility that habitat would not be reclaimed and would be permanently lost to extractive development was not considered. Indeed, there are multiple exploration properties in Kaska territory that were initially permitted based on a determination that impacts to caribou were significant but mitigable because of reclamation commitments and other mitigation measures, but reclamation never occurred, and more advanced exploration projects were determined to have less significant impacts on caribou habitat because *the habitat was already degraded*. **The result is a net loss in habitat for caribou that was not accounted for as an impact at any assessment or permitting stage.**

There were 11 assessments submitted to YESAB during the study period for the renewal of Class 3 or Class 4 exploration programs at 10 different properties. Except for the renewal at Fyre Lake/Kona which BMC withdrew before a decision document was issued, the 10 other renewals were approved, despite a lack of confirmation that proponents had completed the reclamation activities required under their original licenses.

This is significant not just because reclamation is not occurring as promised. It also demonstrates a fundamental flaw in the assessment and regulatory system: a project can be permitted at the earliest stages of exploration precisely because it is small, unlikely to cause lasting impact to caribou, and its impacts can be reclaimed. At this stage, concerns about future impact (should the project progress to advanced exploration or full mine development) are scoped out. That project is then renewed and expanded because its *incremental* impact is considered insignificant, but the totality of past, present, and future impacts is not

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<sup>35</sup> YESAB 2022b, 19.

<sup>36</sup> YESAB 2021b, 35.

assessed. By the time a proponent is applying for advanced exploration and mining permits, the fact that habitat is already degraded is used to argue that the more advanced project will not have significant additional impacts on caribou. Moreover, regulators find it difficult to justify rejecting a project at the more advanced stages because, at that point, proponents have invested significantly in both on-site infrastructure and the assessment and permitting process itself. This is known in impact assessment as the **“tyranny of small decisions”**: **significant and ultimately unmitigable cumulative impact can be permitted by successive small decisions, without ever considering the impact as a whole.**<sup>37</sup>

## 3.7 YESAB rejections not accepted by Yukon Government

Although YESAB overwhelmingly recommends project approval, YESAB has recommended rejection for three exploration projects and was split over its recommendation on one mine (see section 3.1 and 3.5). These assessments were for activities in two particularly controversial development areas: the MacPass/Mactung area (properties currently held by Fireweed Metals) and the Kona/Fyre Lake/Kudz Ze Kayah area (properties currently held by BMC Minerals). These areas are considered particularly important for caribou; both overlap with calving, post-calving, rutting, and migratory habitat for herds that have been experiencing significant land use pressure and, in the case of the Finlayson caribou herd, long term population decline.<sup>38</sup> Applications for exploration work, mining, and access roads related to these properties have thus provoked particularly acute concern for numerous intervenors, including Kaska governments and organizations, conservation organizations, and government departments (both territorial and federal) charged with caribou monitoring and protection.

In its 2021 assessment of the Fyre Lake/Kona project, YESAB based its recommendation to reject on extensive correspondence from Kaska intervenors outlining their concerns and evidence that the Finlayson herd could not sustain additional habitat loss or disruption. YESAB determined that impacts to the Finlayson herd were significant and unmitigable, and argued that any impacts to the herd “that do not support recovery but rather provide for a continuing decline are not acceptable risks”.<sup>39</sup> They underscored the importance of the FCH for Kaska culture and identity, and argued that a precautionary approach was necessary given the multiple proposed and permitted activities in the Finlayson range. YESAB also argued that a collaborative caribou management plan must be in place before any additional proposed activity and development should be considered.

In its assessment of the Oro/Nidd road in 2012, YESAB noted that population estimates for the affected herd were out of date, but that RRDC had noted increased hunting pressure and disturbance and concerns about population decline. YESAB invoked Yukon’s obligations under *SARA* and recommended a precautionary approach particularly in relation to increased access and hunting pressure. They found the project effects on caribou unmitigable and unjustified, particularly because there were alternative means of servicing the site, and recommended the project not be allowed to proceed.

<sup>37</sup> See Noble 2010. Johnson et al 2020 argue, instead, that assessment and regulatory bodies should assess “keystone developments” with likely secondary, growth-inducing potential as a whole at the earliest stages.

<sup>38</sup> The current population status of the Finlayson caribou herd (FCH) is contested. Aerial surveys between 1990 and 2017 showed decline from just under 6000 caribou in 1990 to 2712 caribou in 2017. A YG survey carried out and in partnership with BMC in 2022 found a herd population of 3359 (Russell & Russell 2022). YG and BMC claim the 2022 survey results demonstrate that the FCH is “likely stable or increasing”. LFN contests the 2022 survey findings, pointing to the shifting baseline used to measure population status of the FCH, inconsistencies across the survey methods including differences in the timing of the 2022 survey from previous surveys and the inclusion of additional survey blocks that were previously attributed to the Tay River caribou herd, and exclusion of Kaska knowledge (LFN 2025).

<sup>39</sup> YESAB 2021a, 60.

Despite YESAB's clear, detailed, and evidence-based recommendation against these applications, YG has not yet followed the advice of its assessment body and rejected a proposed project. YG has either overridden YESAB's recommendation and approved the project or not issued a decision document, allowing proponents to withdraw their applications and re-apply without having been formally rejected. Re-application has resulted in approval in the MacPass area and a re-application at the Kona property is currently undergoing YESAB review.

In the absence of regional cumulative impact studies, regional land use plans or conservation areas (that would formally limit extractive activity in particularly sensitive areas), or requirements to secure Kaska consent for specific projects, YESAB and concerned intervenors must repeatedly review and comment on the same projects, knowing that even if YESAB recommends against the project, it may still be approved. This represents a significant weakness in Yukon's assessment and regulatory system, compromising Kaska and public trust in the regulatory process, and potentially resulting in the violation of Kaska rights.

Preparing fish and meat at Finlayson camp at the cabin of John Acklack, a Kaska Dena Elder from Ross River, near Finlayson Lake. Image source: Robby Dick in *The Narwhal*, used with permission



# 4. Conclusions and Recommendations

The limitations of project-specific impact assessment for managing the impacts of mining on caribou are clear. Project-specific impact assessment has been characterized as enabling a “tragedy of open access” for caribou in northern Canada, resulting in precipitous population decline for herds experiencing the most intensive disturbance.<sup>40</sup> In BC, project-specific assessment has authorized extractive development that has been linked to the extirpation of multiple caribou herds and ongoing population decline for others.<sup>41</sup> The risks that mining projects pose to caribou are known and even predicted within project-specific impact assessment, but they are determined to be acceptable and mitigable in the majority of cases. Indeed, as we have shown here, even when herd populations are in decline, when projects are sited within crucial caribou habitat, when intervenors express strong concern or opposition, when affected caribou herds are protected by Species-At Risk legislation, and when the project poses risks to Indigenous harvesting rights, mineral exploration and mining projects continue to be approved in Kaska territory.

Recognizing these risks, Kaska Nations have repeatedly expressed concern and opposition to mining projects that pose the most substantial risks to caribou. They have participated in YESAB reviews despite contesting YG’s jurisdiction in their territory and tabled multiple studies documenting their concerns about the impacts of mining on caribou and Kaska rights. Liard First Nation has argued that “lessons learned from the precipitous declines of southern mountain caribou provide a cautionary tale of the potential effects of habitat loss and degradation for northern mountain caribou herds.”<sup>42</sup> But YG has approved every project for which it issued a decision document in their territory.

These approvals rest on high rates of project splitting, flawed methods for assessing project impacts, failure to account for cumulative effects, the application of weak mitigation measures, lack of evidence for mitigation effectiveness, and failure to fulfill reclamation obligations. In the rare cases that YESAB has recommended project rejection based on unmitigable impacts to caribou, YG has either overridden YESAB’s advice or failed to issue a decision, allowing proponents to re-apply. Together, **these weaknesses in the assessment and regulatory process result in a potential breach in YG’s obligations to caribou, Kaska Nations and the broader public.**

In recent years, despite its overall tendency to recommend project approval, YESAB has taken multiple steps to strengthen its assessment of caribou impacts, including retaining the expertise of caribou biologists and integrating Kaska knowledge into its assessment reports, proposing more stringent mitigation measures, and recommending against projects it determines to be unmitigable. YESAB has repeatedly flagged that it does not have sufficient information about mitigation implementation and effectiveness in the territory and has also acknowledged the broader lack of evidence for mitigation measures, leading in at least one case to a recommendation to reject a proposed project. YESAB has also invoked s. 110 of YESAA in several assessments in an attempt to trigger more robust effects monitoring. These efforts have been

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<sup>40</sup> Parlee et al. 2018. See also Noble 2010, Cameron and Kennedy 2023, Bernauer 2025.

<sup>41</sup> Johnson et al. 2015; *Yahey v. British Columbia* 2021; Collard et al. 2020.

<sup>42</sup> LFN & Firelight Research Inc. 2021, 9.

consistently varied or rejected by YG. In effect, **projects with potentially devastating impacts to caribou continue to be approved in the territory not just because of weaknesses in the assessment system, but also because YG disregards the advice of its assessment board in rendering its final decisions.**

Yukon is currently reviewing many of its mining assessment and regulatory processes, including a twenty-year review of YESAB, review of the Quartz Mining Act, restructuring of YG departments involved in minerals regulation, and broad public consultation on mining. There are multiple findings from this study that are relevant to these review processes. Recommendations for YESAB and YG include:

### **Recommendations for YESAB**

Although project-specific IA is not sufficient to protect caribou from the harms of extractive development, the following changes would address many of the weaknesses identified in this research and improve the rigour, transparency, and defensibility of YESAB's assessments:

- **Eliminate project splitting** by routinely exercising existing statutory authority to combine related project applications, amendments, renewals, and associated linear infrastructure into a single assessment. Treat amendments that expand footprint, duration, or intensity as triggers for re-assessment of the project as a whole.
- **Treat all of unceded Kaska Dena territory as caribou habitat** to align with Kaska and federal government positions, as well as acknowledged uncertainty in herd mapping. Eliminate determinations of “no overlap” based solely on the absence of mapped herd ranges or Wildlife Key Areas (WKAs).
- **Discontinue reliance on Wildlife Key Areas as the primary spatial unit for assessment.** Replace WKA-based assessment with both Kaska knowledge and herd-range-level analysis, explicitly including calving, post-calving, rutting, migratory, and winter habitat. Where spatial data are incomplete or outdated, apply a precautionary approach that assumes habitat use rather than excluding it.
- **Continue to retain the expertise of caribou biologists and Kaska knowledge holders** in the assessment of project impacts.
- **Explicitly assess cumulative effects within project assessments.** Incorporate known past, present, and reasonably foreseeable future developments across the range of the affected herd into the assessment of caribou impacts, rather than treating cumulative effects as contextual factors only.
- **Apply clear, precautionary thresholds for significance and unmitigability.** When caribou herds are in decline or experiencing sustained land-use pressure, treat additional disturbance in core habitat as presumptively significant and potentially unmitigable. Where evidence of mitigation effectiveness is lacking, err on the side of finding effects not mitigable.
- **Strengthen the content and wording of mitigation measures.** Use clear, mandatory, and enforceable language for all caribou-related mitigation measures, avoiding discretionary qualifiers such as “where possible” or “when safe to do so.”
- **Stop treating monitoring as mitigation.** Distinguish clearly between mitigation measures that prevent or reduce impacts and monitoring measures that merely document impacts after they occur. Recommend monitoring only where it is paired with mandatory adaptive actions, including work stoppage or revocation of authorization.
- **Require verified completion of reclamation before approving renewals or expansions.** Do not rely on future reclamation to mitigate adverse effects where disturbances are likely to persist across permitting cycles. Reassess impacts when assumed reclamation has not occurred,

including cumulative effects, and explicitly account for permanent caribou habitat loss where development trajectories indicate ongoing or long-term land use.

## Recommendations for YG

Project-specific improvements to assessment must be accompanied by regulatory, policy, and governance changes by YG. Without these changes, weaknesses identified in this research will persist regardless of assessment quality:

- **Centre Kaska law, knowledge, and consent in decision-making.** Recognize Kaska jurisdiction and law as a substantive legal and governance issue, not merely a consultation concern. Support and recognize Kaska assessment and consent processes, land use planning, and stewardship activities, as well as efforts to establish an Indigenous Protected Conservation Area in Kaska territory.
- **Establish regional land use plans before approving further development.** Pause approvals for new mining activities in heavily affected caribou ranges until regional cumulative effects assessments, land-use plans, and range-level caribou management plans are completed, in partnership with Kaska Nations.
- **Define and enforce cumulative disturbance thresholds for caribou.** Establish evidence-based, precautionary limits on habitat loss and linear disturbance at herd and sub-range scales. Use these thresholds as decision-making constraints, not advisory indicators.
- **End approval-by-mitigation where mitigation effectiveness is unknown.** Require proponents to demonstrate evidence that proposed mitigation measures are effective for caribou in comparable contexts. Do not rely on assumed effectiveness where empirical or monitoring evidence does not exist.
- **Ensure all mitigation measures are clear, binding, and enforceable.** Cease the practice of varying mitigation measures to make them more discretionary and vague.
- **Establish a feedback loop** between mining operators, YG, YESAB, and Kaska Nations documenting licensing, mitigation implementation, and mitigation effectiveness.
- **Update caribou data and fund independent effects monitoring and reporting, in partnership with Kaska Nations.** Herd population, range, and habitat data is either unknown or out of date for multiple herds in Kaska territory. Allocate funds to implement effects monitoring requests under s.110 of YESAA. Ensure monitoring is independent of proponents, publicly reported, and linked to regulatory action.
- **Respect and implement YESAB recommendations, particularly findings of unmitigable impact.** End the practice of overriding rejection recommendations or allowing proponents to withdraw and re-apply without a formal refusal.
- **Align mining and land use legislation, regulation and policy with legal obligations to species recovery and Kaska rights.** Ensure that approvals are consistent with obligations under the *Species at Risk Act*, including preventing northern mountain caribou from becoming threatened or endangered. Where projects are likely to negatively impact herd stability or recovery, do not authorize them. Ensure Yukon's legal and regulatory frameworks are aligned with Constitutional obligations to Kaska Nations and the UN Declaration on the Rights of Indigenous Peoples, including rights to free, prior, and informed consent.

# 5. Appendix A

## List of Cases (2006-2024)

YOR File No.	Assessment Date	Project Title	Proponent	Property	Recommendation	Decision
2006-0006	01-03-2006	Howard's Pass	Pacifica Resources Ltd.	Howard's Pass / Selwyn	Approval	Approved
2006-0047	28-03-2006	Tidd Property	Strategic Metals Inc.	Tidd	Approval	Approved
2006-0061	11-04-2006	Rock River Coal Project	Aurora Geosciences Ltd. (Agent)	Rock River Coal	Approval	Approved
2006-0076	08-05-2006	Fyre Lake	Pacific Ridge Exploration Ltd.	Fyre Lake / Kona	Approval	Approved
2006-0083	08-05-2006	CMC Silver Property	CMC Metals Ltd.	Silver Hart	Approval	Approved
2006-0188	24-07-2006	Quartz Exploration, Upper Sheep Creek	Glen MacDonald	Stormy Mountain	Approval	Approved
2006-0204	09-08-2006	Quartz Exploration: Tootsee River	Cumberland Resources Ltd.	Tootsee River/Jennings	Approval	Approved
2006-0292	27-12-2006	Transportation – Winter Trail: Selwyn Project	Pacifica Resources Ltd.	Howard's Pass / Selwyn	Approval	Approved
2007-0017	15-03-2007	Mining – Quartz: Tidd Property, Amendment to Existing Land Use Operating Plan LQ00176	Strategic Metals Inc.	Tidd	Approval	Approved
2007-0030	05-04-2007	Mining – Quartz: Risby Property	Playfair Mining Ltd.	Risby	Approval	Approved
2007-0051	23-04-2007	Quartz Exploration: Silver Hart Mine	CMC Metals Ltd.	Silver Hart	Approval	Approved
2007-0075	07-05-2007	Mining – Quartz: Andrew Base Metal Project	Overland Resources Limited	Andrew / Selous	Approval	Approved
2007-0091	31-05-2007	Mining – Quartz: Hy Property	Archer, Cathro & Associates Ltd. (Agent)	Hy	Approval	Approved
2007-0104	22-06-2007	Mining – Quartz: Stump Property	Klondike Silver Corporation	Stump	Approval	Approved
2007-0107	03-08-2007	Mining Quartz – Mel Property	International Barytex Resources Ltd.	Mel	Approval	Approved
2007-0121	17-07-2007	Ketza River Mine Solid Waste Incinerator	Ketza River Holdings Ltd.	Ketza River Mine	Approval	Approved
2007-0148	09-11-2007	Mining – Quartz: Ketza River	Ketza River Holdings Ltd.	Ketza River Mine	Approval	Approved
2007-0165	15-10-2007	Mining: Northern Lights Uranium Project	Northern Lights Uranium	N/A	Approval	Approved
2007-0192	07-12-2007	Andrew Property Winter Trail	Overland Resources Limited	Andrew / Selous	Approval	Approved
2007-0206	11-12-2008	Silver Hart Mine Development and Production	CMC Metals Ltd.	Silver Hart	Referral	N/A

YOR File No.	Assessment Date	Project Title	Proponent	Property	Recommendation	Decision
2008-0014	10-03-2008	Mining – Quartz: Timber Property	Strategic Metals Ltd.	Timber	Approval	Approved
2008-0016	05-03-2008	Mining – Quartz: Uno Property	Strategic Metals Ltd.	Uno	Approval	Approved
2008-0017	10-03-2008	Mining – Temporary Exploration Camp: Jeff Lake Property	Strategic Metals Ltd.	Jeff Lake	Approval	Approved
2008-0025	12-03-2008	Mining – Quartz: Fairweather Property	International KRL Resources Ltd.	Tim	Approval	Approved
2008-0032	01-04-2008	Mining – Quartz: Andrew Base Metal Project Revision	Overland Resources Limited	Andrew / Selous	Approval	Approved
2008-0035	14-03-2008	Mining – Quartz: Fairweather Property	Strategic Metals Ltd.	Fairweather	Approval	Approved
2008-0093	02-07-2008	Quartz Mining: Groundhog Property	Rockhaven Resources Ltd.	Groundhog	Approval	Approved
2008-0107	26-05-2008	Quartz Mining: Boot Property	Strategic Metals Ltd.	Boot	Approval	Approved
2008-0122	02-07-2008	Quartz Mining: Stump Property	15317 Yukon Inc.	Stump	Approval	Approved
2008-0143	01-07-2008	Drag Property Temporary Camp	Eagle Plains Resources Ltd.	Drag	Approval	Approved
2008-0242	19-12-2008	Installation of an Adit Plug and Associated Workings at the Tom Valley Property	Hudson Bay Mining and Smelting Co., Limited	Tom and Jason	Approval	Approved
2008-0248	09-02-2009	Hyland Property	StrataGold Corporation	Hyland	Approval	Approved
2008-0280	05-03-2009	Selwyn Project	Selwyn Resources Ltd.	Howard's Pass / Selwyn	Approval	Approved
2008-0289	31-03-2009	Advanced Exploration at Mactung Property	North American Tungsten Corporation Ltd.	Mactung Mine	Approval	Approved
2008-0304	10-03-2014	Mactung Mine Project	North American Tungsten Corporation Ltd.	Mactung Mine	Approval	Approved
2009-0036	08-04-2009	Geological Mapping – Coal River Map Area	Geological Survey of Canada	N/A	Approval	Approved
2010-0042	10-06-2010	Mining – Quartz: Bolt Property	Strategic Metals Inc.	Bolt	Approval	Approved
2010-0072	16-06-2010	Selwyn Resources Underground Exploration Program	Selwyn Resources Ltd.	Howard's Pass / Selwyn	Approval	Approved
2010-0080	10-09-2010	Ketza Type A Water License	Ketza River Holdings Ltd.	Ketza River Mine	Approval	Approved
2010-0094	15-06-2010	Quartz Exploration – True Blue Property	Ketza River Holdings Ltd.	True Blue	Approval	Approved
2010-0103	13-07-2010	Quartz Exploration – Keg Property	Strategic Metals Ltd.	Keg	Approval	Approved
2010-0265	04-05-2011	Quartz Exploration – Keg Property	Strategic Metals Ltd.	Keg	Approval	Approved
2011-0053	24-07-2011	3Ace Exploration Program – Nahanni Range Road	Northern Tiger Resources Inc.	3 Aces	Approval	Approved
2011-0066	08-07-2011	Quartz Exploration – Tom and Jason Properties – MacMillan Pass	Hudson Bay Mining and Smelting Co., Limited	Tom and Jason	Approval	Approved

YOR File No.	Assessment Date	Project Title	Proponent	Property	Recommendation	Decision
2011-0073	07-07-2011	Quartz Exploration – Jennings Project	Agnico-Eagles Mines Limited	Tootsee River/Jennings	Approval	Approved
2011-0097	05-08-2011	Dragon Lake /Twin Creeks Camp – Drilling and Exploration	Eagle Plains Resources Ltd.	Dragon Lake	Approval	Approved
2011-0108	01-08-2011	Quartz Exploration – Oro Property	Colorado Resources Ltd.	Macmillan Pass	Approval	Approved
2011-0119	05-07-2011	Carlin Gold Joint Venture Yukon Exploration Program	Carlin Gold Corporation	Carlin Gold	Approval	Approved
2011-0168	19-12-2011	Quartz Exploration – Grew Creek	Golden Predator Canada Corp.	Grew Creek	Approval	Approved
2012-0019	19-03-2012	Justin Property Quartz Exploration Program	Aben Resources Ltd.	Justin	Approval	Approved
2012-0036	10-04-2012	Quartz Exploration – Reef Project	Precipitate Gold Corporation	Reef	Approval	Approved
2012-0044	13-04-2012	Class 3 MLUA Amendment – Jenning Project	Agnico-Eagles Mines Limited	Tootsee River/Jennings	Approval	Approved
2012-0047	14-05-2012	Quartz Exploration – La Liga Project	Inform Resources Corporation	La Liga	Approval	Approved
2012-0060	12-05-2012	Nidd Road Upgrades and Camp Relocation – Oro Property Quartz Exploration	Colorado Resources Ltd.	Macmillan Pass	Reject	Approved
2012-0105	30-05-2012	Quartz Exploration – Lodestar	Robert Moar	Lodestar	Approval	Approved
2012-0118	09-07-2012	Quartz Exploration – Culvert Property	Stakeholder Gold Corp.	Culvert	Approval	Approved
2012-0127	11-07-2012	Quartz Exploration – Tay/LP Property	Canarc Resources Corporation	Tay-LP	Approval	Approved
2012-0157	06-08-2012	Quartz Exploration – Bandito Property	Endurance Gold Corporation	Bandito	Approval	Approved
2013-0126	17-10-2013	Tsa Da Glisza Winter Road	True North Gems	TGD	Approval	Approved
2014-0001	11-03-2014	Silvertip Access Road Repair	JDS Silver Inc.	Silvertip Mine	Approval	Approved
2014-0020	07-04-2014	Don Creek Temporary Bridge Crossing (DLP)	Selwyn Chihong Mining Ltd.	Howard's Pass / Selwyn	Approval	Approved
2014-0048	30-07-2014	Yukon Base Metal Project	Overland Resources Yukon Limited	Andrew / Selous	Approval	Approved
2014-0179	19-06-2015	Sä Dena Hes Mine – Post-Reclamation Phase	Teck Resources Limited	Sä Dena Hes Mine	Approval	Approved
2014-0204	02-03-2015	Fyre Lake Exploration	MinQuest	Fyre Lake / Kona	Approval	Approved
2014-0221	13-02-2015	Hyland Gold Project – Winter Trail	Banyan Gold	Hyland	Approval	Approved
2015-0028	24-04-2015	Kudz Ze Kayah Exploration	BMC Minerals (No. 1) Ltd.	KZK	Approval	Approved
2015-0030	13-04-2015	LQ00319b 3 Aces Permit Amendment	Golden Predator Mining Corp.	3 Aces	Approval	Approved
2015-0072	13-05-2015	Selwyn Project Site Investigations	Selwyn Chihong Mining Ltd.	Howard's Pass / Selwyn	Approval	Approved
2015-0084	06-07-2015	Mel Property – Quartz Exploration and Winter Road Access	Silver Range Resources Ltd.	Mel	Approval	Approved

YOR File No.	Assessment Date	Project Title	Proponent	Property	Recommendation	Decision
2016-0061	19-05-2016	Quartz Exploration – Pelly Project	BMC Minerals (No. 1) Ltd.	Pelly	Approval	Approved
2016-0092	27-07-2016	Golden Culvert Property – Quartz Exploration	Gary Lee and Robert Scott	Culvert	Approval	Approved
2016-0096	08-07-2016	Temporary Bridge – Little Hyland Bridge	Golden Predator Mining Corp.	3 Aces	Approval	Approved
2016-0121	23-08-2016	3 Aces Project – Class 4 Quartz Exploration	Golden Predator Mining Corp.	3 Aces	Approval	Approved
2016-0201	31-01-2017	Renewal of Hyland Gold Project Class 3 Mining Exploration Permit	Banyan Gold Corp.	Hyland	Approval	Approved
2017-0002	29-03-2017	Kudz Ze Kayah Exploration Project	BMC Minerals (No. 1) Ltd.	KZK	Approval	Approved
2017-0075	12-05-2017	Frances Lake Bedrock Mapping Project	Yukon Geological Survey	N/A	Approval	N/A
2017-0083	13-10-2020	Kudz Ze Kayah Project	BMC Minerals (No. 1) Ltd.	KZK	Approval	Approved
2018-0047	01-06-2018	Tom and Jason Property MacMillan Pass Quartz Exploration Program	Fireweed Zinc Ltd.	Tom and Jason	Approval	Approved
2018-0096	25-07-2018	Golden-Oly Quartz Exploration	Strikepoint Gold	Golden-Oly	Approval	Approved
2018-0197	28-03-2019	Tom and Jason Property MacMillan Pass Project Class 4 Quartz Exploration Program	Fireweed Zinc Ltd.	Tom and Jason	Approval	Approved
2018-0206	31-05-2019	Yukon Base Metal Project	Overland Resources Yukon Limited	Andrew / Selous	Approval	Approved
2018-0211	05-07-2019	Mactung – Class 4 Quartz Exploration	Government of the Northwest Territories	Mactung Mine	Approval	Approved
2019-0013	30-05-2019	Silver Hart – Class 3 Mining Land Use	CMC Metals Ltd.	Silver Hart	Approval	Approved
2019-0032	20-06-2019	Selwyn Project – Continued Class 4 Quartz Exploration	Selwyn Chihong Mining Ltd.	Howard's Pass / Selwyn	Approval	Approved
2020-0044	09-07-2020	Silver Hart – Quartz Mining Exploration and Access Road Upgrades	CMC Metals Ltd.	Silver Hart	Approval	Approved
2020-0141	10-05-2021	3 Aces Quartz Exploration	Seabridge Gold (Yukon) Inc.	3 Aces	Approval	Approved
2020-0168	07-07-2021	Nidd Project – Quartz Exploration Program	Fireweed Zinc Ltd.	Macmillan Pass	Reject	N/A
2021-0009	06-08-2021	Kona Project – Quartz Exploration Program	BMC Minerals (No. 1) Ltd.	Fyre Lake / Kona	Reject	N/A
2021-0187	12-10-2022	Quartz Exploration – Tim Property	Alianza Minerals Ltd.	Tim	Approval	Approved
2022-0061	17-08-2022	Nidd Property – Class 3 Quartz Exploration Program	Fireweed Zinc Ltd.	Macmillan Pass	Approval	Approved
2022-0066	08-09-2022	Grew Creek – Quartz Exploration Renewal	Golden Predator Exploration	Grew Creek	Approval	Approved
2023-0025	06-06-2023	Quartz Exploration – Keg Property – Reclamation & Remediation	Silver Range Resources Ltd.	Keg	Approval	Approved

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