



## SUMMARY - TERMS OF REFERENCE

# Pine Point Mine Project





**Mackenzie Valley Environmental Impact Review Board**  
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[www.reviewboard.ca](http://www.reviewboard.ca)

The Mackenzie Valley  
Environmental Impact Review  
Board (Review Board) has  
prepared a Terms of Reference  
for its environmental assessment  
of the Pine Point Mine Project.  
This is a summary document of  
the **Terms of Reference.**

*This summary document is not a full representation of the contents of the Terms of Reference for EA2021-01 of the Pine Point Mine Project and is **intended for information purposes only** and is not part of the Public Record for the environmental assessment. This summary has been prepared in an effort to highlight key elements of the Terms of Reference and is not a substitution for the content of the Review Board's Terms of Reference that can be found on the Review Board's Public Registry at: <https://reviewboard.ca/registry/ea2021-01>*

## WHAT IS THE TERMS OF REFERENCE?

The Terms of Reference outlines the questions that Pine Point Mining Limited (the developer) must answer in its Developer's Assessment Report for the Pine Point Mine Project.

**The Terms of Reference describes what information the Review Board needs from the developer to assess the impacts of the Pine Point Mine Project on the environment and people.** It also describes how the Review Board is going to assess this project and how communities and individuals can participate.

## HOW WAS THE TERMS OF REFERENCE DEVELOPED?

The document was prepared by the Review Board. It was based on a project submission from the developer and recommendations from:

- community meetings (in-person and online)
- online technical meetings
- written comments on a draft Terms of Reference

**The Terms of Reference reflects what the Review Board heard from communities and other parties** including Indigenous governments and organizations, and federal and territorial government departments.



# WHAT IS THE PINE POINT MINE PROJECT?

The Project includes open pit and underground mining of about 50 zinc and lead deposits along a 60 km stretch of land on the south side of Great Slave Lake. The property is 42 km east of Hay River and 53 km west of Fort Resolution at the same location as the old Pine Point Mine. The Project will take 1.5 years to build and 10-15 years to operate, followed by five years of closure and reclamation



**1.5**  
years to build

**10-15**  
years to operate

**5 years**  
of closure and reclamation

# ARE THERE ENGAGEMENT REQUIREMENTS?

The Terms of Reference describes how the developer must involve the public, including Indigenous Governments and communities, when it prepares the Developer's Assessment Report.

## Location of the Pine Point Mine Project



# ASSESSING IMPACTS ON THE ENVIRONMENT AND PEOPLE

The developer will look at impacts on parts of the environment individually, and at the relationships between them, when assessing the Project's impacts. This is especially important for assessing impacts on three key lines of inquiry. These are the most important subjects that require the developer's highest level of effort. For this environmental assessment, **the most important subjects are:**



**keeping water  
safe and clean**



**sustainable  
boreal caribou:  
protection and  
harvest**



**lasting well-being  
of people and  
communities**

The Terms of Reference describes how the Board will assess impacts. It states that the Board will:

- assess impacts in **all areas that may be affected** by the Project, over areas appropriate for each subject (reflecting downstream areas, airsheds, communities, and wildlife ranges).
- consider impacts caused **throughout the life cycle of the Project**, including construction, operation, closure and post-closure.
- consider **cumulative effects**, assessing how the impacts of this project combine with impacts from other past, present and reasonably foreseeable future developments and human activities.



# OVERALL APPROACH TO ASSESSING IMPACTS

The Terms of Reference describes the overall approach to assessing impacts. It requires the developer to:

- describe **the baseline condition** and trends without the project, as a basis for assessing the impacts of the Project
- **assess the impacts of the project** on the environment, including people
- describe all the **impact pathways** between Project activities and parts of the environment that the Project could affect
- describe how the developer proposes to **mitigate** (avoid or reduce) impacts, and **what impacts will remain**

While completing the steps above, the developer must:

- use **Traditional Knowledge** in its assessment
- consider cumulative effects including the **legacy of past mining**
- consider **climate change**, including impacts of the Project on climate change and the risks of climate change to the Project.

The Terms of Reference requires the developer to assess:

1. impacts from the Project on individual valued components
2. impacts from the Project on interconnected valued components together
3. cumulative impacts from the Project and other developments



# ASSESSING IMPACTS IN DETAIL

**Chapter 4 requires the developer to look at potential impacts in detail.**

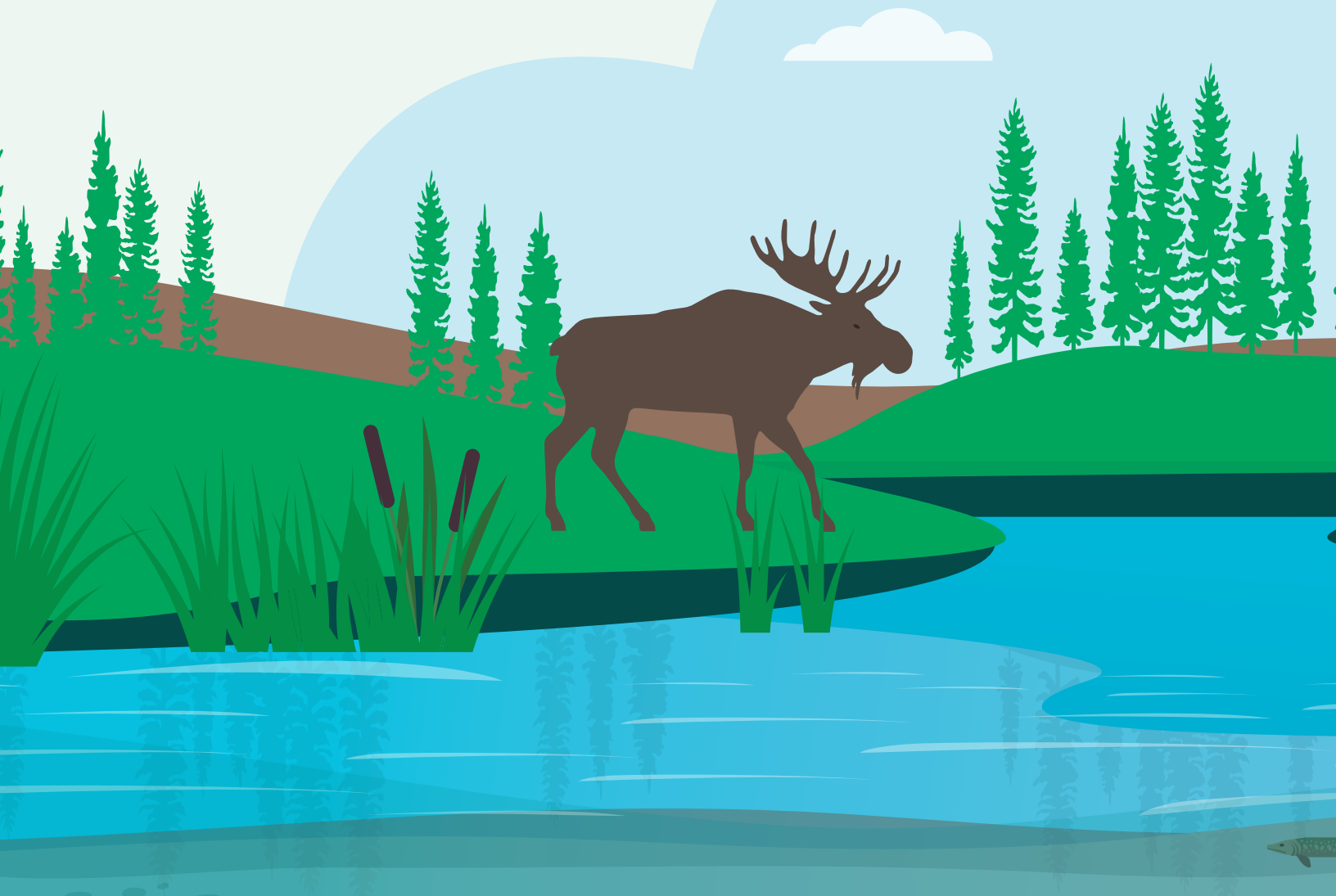
The developer must assess the following impacts on **air and land** (Section 4.1):

- **impacts on air** such as project emissions, dust, odours, contaminants, and other air pollution on the environment and people. It requires the developer to describe greenhouse gas emissions from the Project and ways to reduce emissions over the life of the project.
- **impacts from noise and vibration**, including sound levels, sources, timing, frequency and duration of these impacts, particularly during sensitive periods for wildlife and people.
- **impacts from visual changes**, such as light pollution, dust plumes, landscape change, and how that might impact people and wildlife, and key locations where traditional activities could be affected.
- **impacts on terrain, geology and soil**, including characteristics of pits used for storage of tailings, characteristics of ore, waste rock, soils, permafrost, karst, and stability of ground and engineered structures. Consideration is also required on the quality of soils from past mining and use in future reclamation.

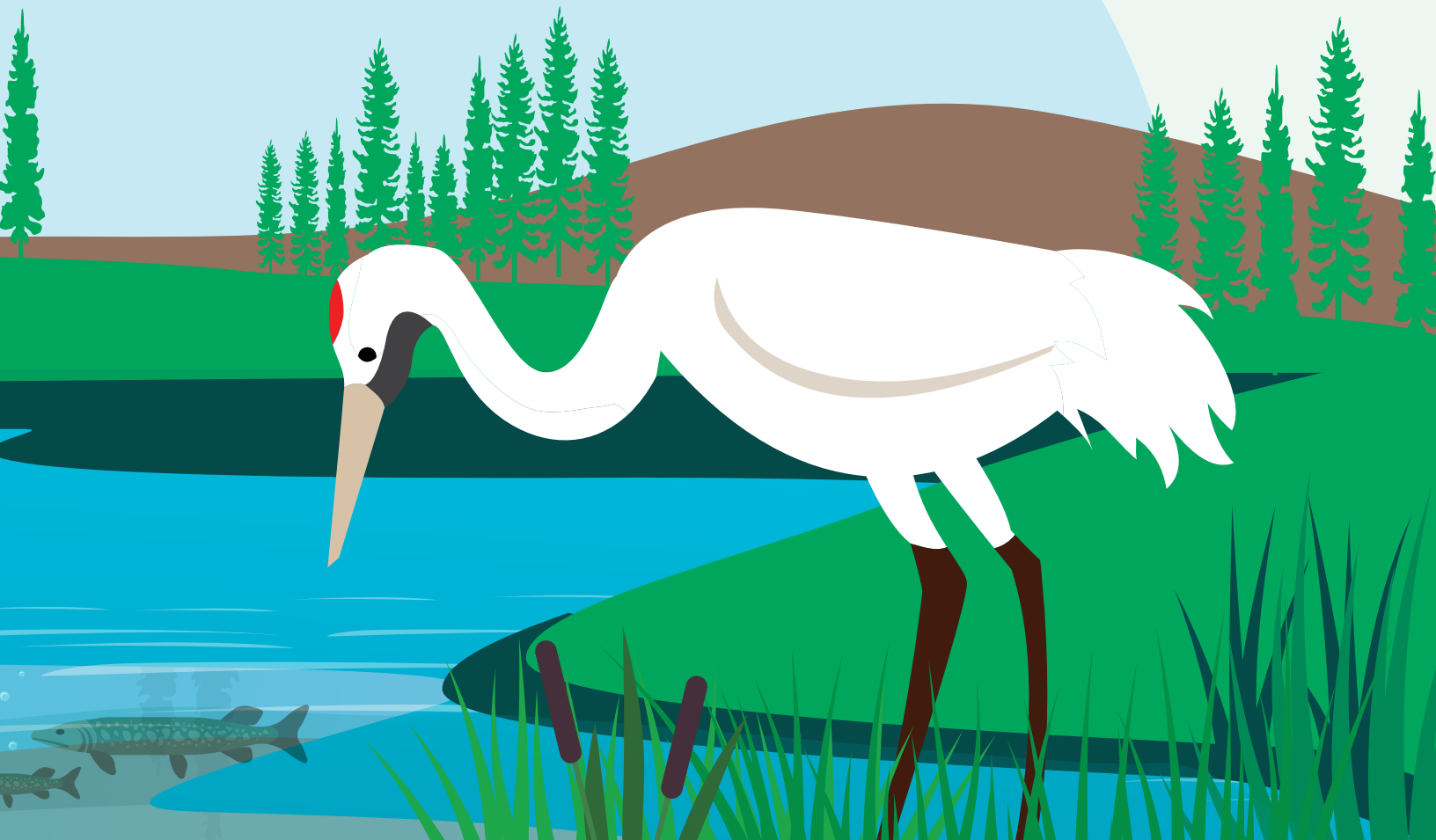


The developer must assess the following impacts on the **biophysical environment** (Section 4.2):

- **impacts on groundwater**, including how construction and operation of open pit and underground mines and water and tailings management activities might affect the quality, quantity and movement of water below the surface of the ground.
- **impacts on surface water**, including changes to the quantity and flow of surface waters due to water management or mining activities and changes to the quality of surface water due to discharge, metal leaching or acid rock drainage or accidents and malfunctions.
- **impacts on fish and aquatic life**, including noise and vibration due to blasting, changes to water quality, habitat loss, impacts to spawning or migration routes, and impacts to areas known for traditional harvesting.



- **impacts on vegetation**, including direct loss of wildlife habitat in upland, wetland, and riparian ecosystems, as well as impacts to plants of traditional, medicinal, cultural, ecological, or economic importance. It also requires a description of regeneration at sites disturbed by past mining.
- **impacts on birds**, including changes to habitat, movement, distribution and contaminants.
- **impacts on moose and other wildlife**, including changes to habitat, mortality rates, sensory disturbances, predation, contaminants, and disruption of movement patterns.
- **impacts on boreal caribou**, including changes to habitat, sensory disturbance, contaminants, predation, and population status, considering range planning and sustainable harvest.
- **impacts on species at risk**, including changes to habitat (with a focus on critical habitat), contaminants, predation and sensory disturbance, and impacts from dewatering , critical timing windows, considering species recovery plans. This includes a special focus on whooping crane.



The developer must assess the following impacts on **people and communities** (Section 4.3):

- **impacts on Indigenous land use**, including harvesting and gathering activities (for example, hunting and trapping of country foods and gathering of traditional medicines), as well as changes to safety and experience on, and perception of, the land.
- **impacts on other land uses**, including recreational hunting and fishing, commercial fishing, tourism and outfitting, and use of seasonal cabins.
- **impacts on heritage resources**, including disturbance to heritage resources and mitigation in case of discovery of new heritage resources.
- **impacts on culture**, including culturally important places, values, cultural continuity and transfer of knowledge, language, sense of place on the landscape, and any other cultural impacts identified during engagement.



- **impacts on social and community conditions**, including social structures, population, cost of living, uneven distribution of benefits, social cohesion, existing social issues, safety, stress, as well as the demand for and capacity of infrastructure and services.
- **impacts on economy and employment**, including project wages, procurement contracts, availability and capacity of local workforce, barriers to employment, training, anticipated Indigenous and regional participation (labour and procurement), traditional economy, and government revenues.
- **impacts on human health**, including availability of health resources as well as changes to physical and mental health from changes to other parts of the environment (such as noise, air quality, availability of country foods and medicines, water quality, income and employment, social and community structures).



# SYSTEMS THINKING FOR THE MOST IMPORTANT QUESTIONS

After the developer describes the Project's predicted impacts on each of the above subjects, the Terms of Reference requires the developer to bring those predictions together using a systems approach for each of the key lines of inquiry.

**Keeping water safe and clean:** The developer will consider how any impacts from the Project on groundwater, surface water, culture, Indigenous and other land use, human health, fish and aquatic life, vegetation, and wildlife are interconnected and affect one another. The developer will describe uses of water in the area, how impacts on water will be assessed (including using criteria from communities), how water will be managed, and how project impacts on water could affect other valued components such as wildlife, people and plants.

The Terms of Reference asks the developer key questions about this, including the following:

*Will water around the Project (that is, the local and regional study areas) be clean, safe and plentiful for people, fish, aquatic life, and wildlife during all project stages?*

*Will the Project affect traditional uses of water by local Indigenous people?*

*Will changes to water quality or quantity from the Project lead to changes in the ways people traditionally use or experience the land?*

*Will the Project affect ground or surface waters in ways that might harm or otherwise cause adverse impacts to ecosystem function(s)?*



**Lasting well-being:** The developer will consider how any social, economic, health, cultural, and biophysical impacts caused by the Project are interconnected and affect lasting well-being. The developer will engage with each potentially affected community and Indigenous group about the potential Project impacts to well-being, considering how impacts could happen and relevant community-specific priorities.

Key questions include:

*What will be the legacy effects of the Project on people living in nearby communities?*

*What is the overall effect on long-term well-being, post-closure?*

*How will the Project affect cultural well-being?*

*Will the Project support health and well-being of communities?*

*Will the Project meet the current needs of residents without compromising future generations?*

*How will this project act cumulatively with other projects in the area to affect social, health, cultural, and economic conditions?*



**Sustainable boreal caribou- protection and harvest:** The developer will consider any predicted impacts on boreal caribou from the Project in combination with predicted impacts on vegetation, water, traditional harvesting, cultural uses and values, human health, wolves, moose and predator-prey dynamics, and community well-being.

Key questions include:

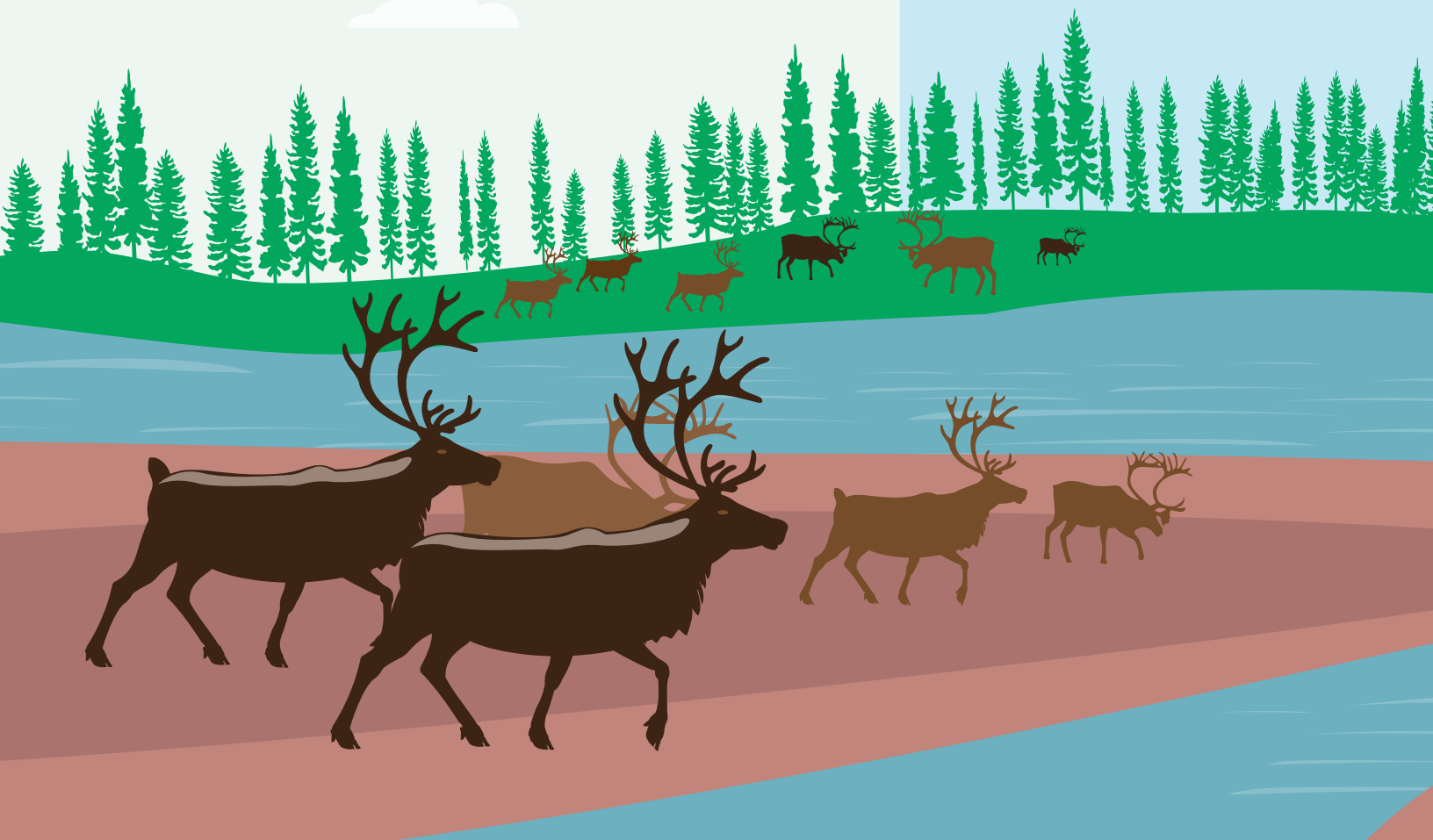
*Will the Project reduce boreal caribou numbers in the area?*

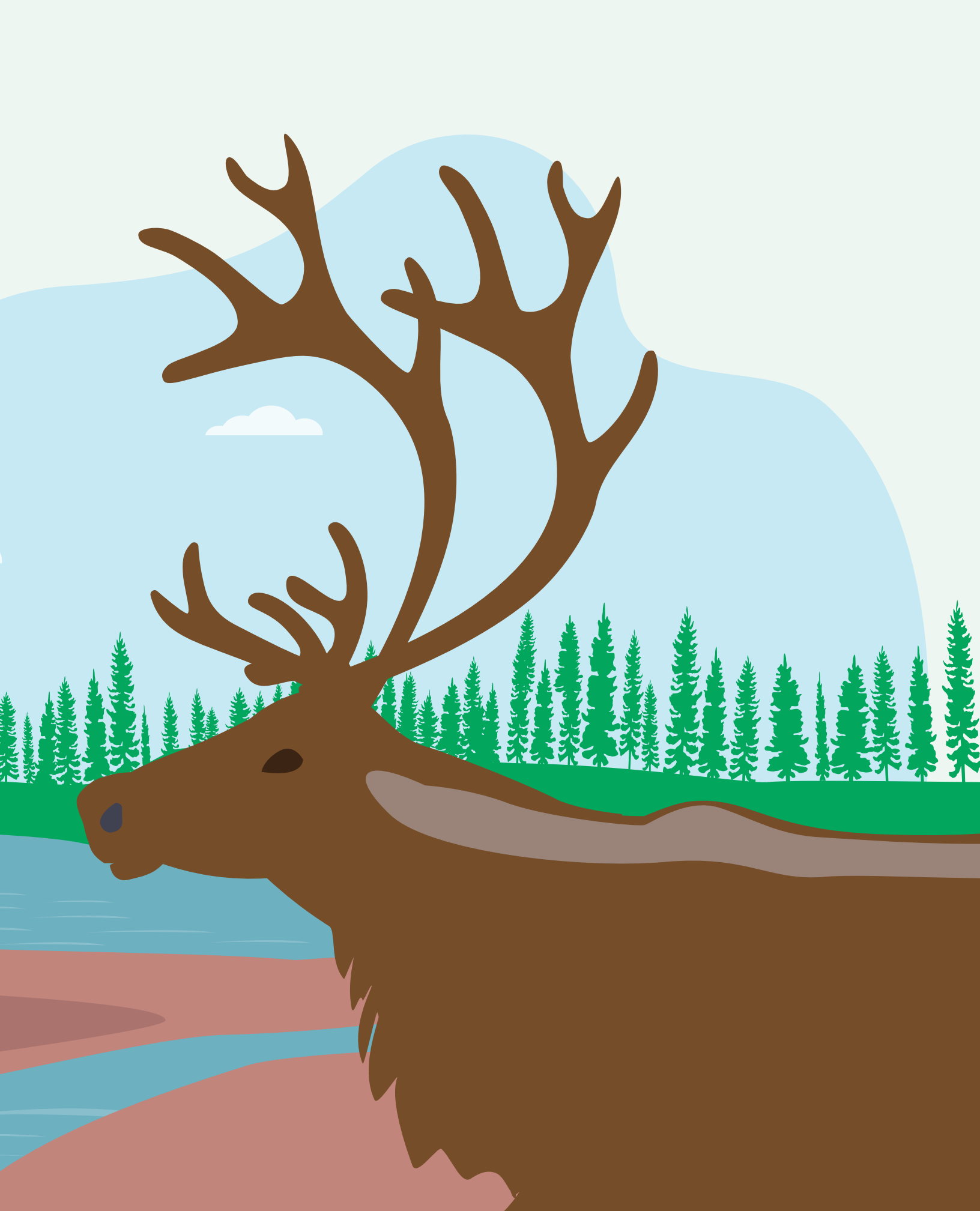
*How will the Project affect the local caribou population?*

*Will the Project change cultural harvesting experiences or reduce caribou harvest by Indigenous people in other ways?*

*Will harvested caribou still be safe to eat?*

*How will the Project affect interactions between habitat availability, wolf predation, and changing caribou and moose numbers? What does that mean for traditional harvesters?*









# Mackenzie Valley Review Board



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