

NWT CIMP Caribou Monitoring and Research Blueprint

NWT CIMP focuses on three valued components (VCs): caribou, water and fish. Please see the other Blueprints if your project has the potential to overlap with another VC. For all program information, visit our [website](#).

Background

What is the Caribou Monitoring and Research Blueprint and how is it to be used?

The Caribou Blueprint informs NWT CIMP funding applicants of caribou-related cumulative impact monitoring and research priorities identified by key northern decision-makers and subject-matter experts. It describes information that is necessary to better understand cumulative impacts to caribou and the relationships between people and caribou.

The Blueprint guides NWT CIMP funding application decision making. For science projects to be considered for funding, project submissions *must* demonstrate that they meet Blueprint priorities.

Who informs the Blueprint?

Monitoring and research priorities have been updated for the next five-year period (2026-2030) based on engagement with subject-matter experts, Indigenous Governments and Indigenous Organizations, co-management boards, and environmental regulators, survey and workshop feedback, and guidance from the NWT CIMP Steering Committee.

NWT CIMP's Key Principles

NWT CIMP's principles guide us in program delivery. Funding applicants should be aware of these principles and, where possible, align their proposals with them. Important principles for applicants to consider are:

- Monitoring cumulative impacts that are **relevant to northern resource management decisions**.
- Traditional Knowledge and scientific knowledge are equally important sources of monitoring information.
- Community-based monitoring and capacity-building are supported in monitoring cumulative impacts.
- Use of common and standardized data collection and analysis protocols should be used when appropriate to support data sharing and identification and analysis of cumulative impacts across the landscape.

NWT CIMP places a high priority on cumulative impact monitoring and research that uses Traditional Knowledge. The goal is to apply what we learn from Traditional Knowledge to inform northern decision-making. For additional information, refer to [Traditional Knowledge Monitoring Ideas](#).

Revised: April 2026



The Caribou Monitoring and Research Blueprint

NWT CIMP's priority caribou species include all 5 NWT ecotypes: **Barren-ground, Boreal, Northern Mountain, Dolphin and Union, and Peary.**

To be considered for funding, the project proposal *must* clearly address one or more priority questions:

Drivers of caribou population, abundance and trend metrics

- a. What are the relative contributions of demographic rates (e.g., adult mortality/survival, pregnancy rates, calf survival and recruitment, immigration and emigration) to caribou population growth rates and trends?
- b. What are the relative contributions of the below factors to caribou demographic rates, population growth rates, abundance and trends?
 - Harvest
 - Predation
 - Competition
 - Landscape connectivity
 - Density-dependence
 - Habitat condition and accessibility
 - Climate (short-term variation and long-term change)
 - Insect abundance
 - Human disturbance
 - Health
- c. What factors influence how much wastage or other disrespectful harvest practices occurs?
- d. What are the predicted future trends of caribou under climate change, landscape change, and expected trends in the factors listed above?

Human disturbance and wildfire impacts to habitat and habitat use

Revised: April 2026



- a. How does changing habitat and vegetation from linear disturbances and other forms of human disturbance impact caribou food resources, demographics, abundance and predator-prey dynamics? Does this differ across ecotypes and herds?
- b. What type of new habitats are created after boreal and tundra wildfires? How do fires impact caribou use of burned habitat areas, food resources, demographics, abundance and predator-prey dynamics? Are wildfires impacting winter habitat?
- c. Which mitigation strategies are most effective at reducing the cumulative impacts from development?
- d. What changes to best practices and methods are needed to better address cumulative impacts to caribou habitat?

Cumulative impacts to caribou seasonal movements and migrations

- a. How will future developments impact the use of key habitats, seasonal movements and connectivity across the landscape?
- b. How are key migratory routes, water body crossings, and climate refugia changing? What are barriers to seasonal movement?
- c. How will climate change impact the use of key seasonal habitat areas, considering dynamic range use?
- d. What changes to best practices and methods are needed to better address cumulative impacts to caribou movement and migration?

Caribou health impacts from a changing climate and species range shifts

- a. How will climate change alter the distribution, transmission, and emergence of pathogens, parasites, and other pressures that affect caribou health?

Revised: April 2026



- b. How will shifting insect communities and changing insect abundance, timing, and range influence caribou behaviour, energetics, and overall health?
- c. How could the northward movement of new wildlife species and disease hosts introduce novel pathogens or increase health risks for caribou?
- d. How will climate-driven landscape changes and interacting climate stressors, such as heat, drought, wildfire, permafrost thaw, etc. impact caribou health and disease vulnerability?

Impacts to caribou from changing interactions with other species, including predators and competitors

- a. What are the impacts of population density and shifting range of other ungulates, such as muskox, bison, and moose, on caribou?
- b. How do multiple predator species (e.g. wolves, black bears, and grizzly bears) affect caribou calf and adult survival rates?
- c. How will changing climate alter predator-prey dynamics and relationships (e.g., changes in overlap of predator and prey ranges, and/or prey switching)?

