

A Framework for Boreal Caribou Range Planning

Summary

August 2019



Government of
Northwest Territories

About the Framework

The Framework for Boreal Caribou Range Planning is a guide for developing five regional range plans that will determine how habitat for boreal caribou will be managed across the Northwest Territories (NWT).

The Framework will help ensure these plans are consistent with one another by describing:

- Regional thresholds for habitat disturbance
- What kinds of actions are recommended for different levels of disturbance
- How to decide which areas should have more intensive management actions
- How those actions could be implemented

What is habitat disturbance?

Habitat disturbance refers to changes on the landscape within the range of boreal caribou, either due to human activity or natural factors, such as wildfire.

Why range planning?

Boreal caribou are listed as a *Threatened* species under both the federal *Species at Risk Act* (in 2003) and the territorial *Species at Risk (NWT) Act* (in 2014). Population declines across Canada are linked to changes in habitat from industrial activity such as roads, logging and seismic lines, as well as wildfire. The NWT population of boreal caribou is currently considered to be healthy overall, but careful management of habitat disturbance will be important to maintain a healthy and sustainable boreal caribou population for the future.

Range plans are tools for decision-makers, companies and communities to help manage activities on the land in a way that supports the recovery of boreal caribou. They are recommended under both the NWT and national recovery strategies. The national Recovery Strategy also requires that at least 65% of boreal caribou habitat in the NWT is free from human or wildfire disturbance. The range of the NWT boreal caribou population extends from the border with Alberta and British Columbia north to the Gwich'in and Inuvialuit regions, and includes part of the Yukon Territory. This area is known as the "NT1" range.

How was the Framework developed?

Protecting boreal caribou is a shared responsibility that requires the commitment and action of multiple partners, including the GNWT, federal government, Indigenous governments and organizations, regulatory boards, industry and other stakeholders.

The GNWT worked with its co-management partners to review and refine this Framework, and will continue to work collaboratively to develop five regional range plans between 2019 and 2023.

What is the goal of the Framework?

The goal of the Framework is based on the NWT Recovery Strategy:

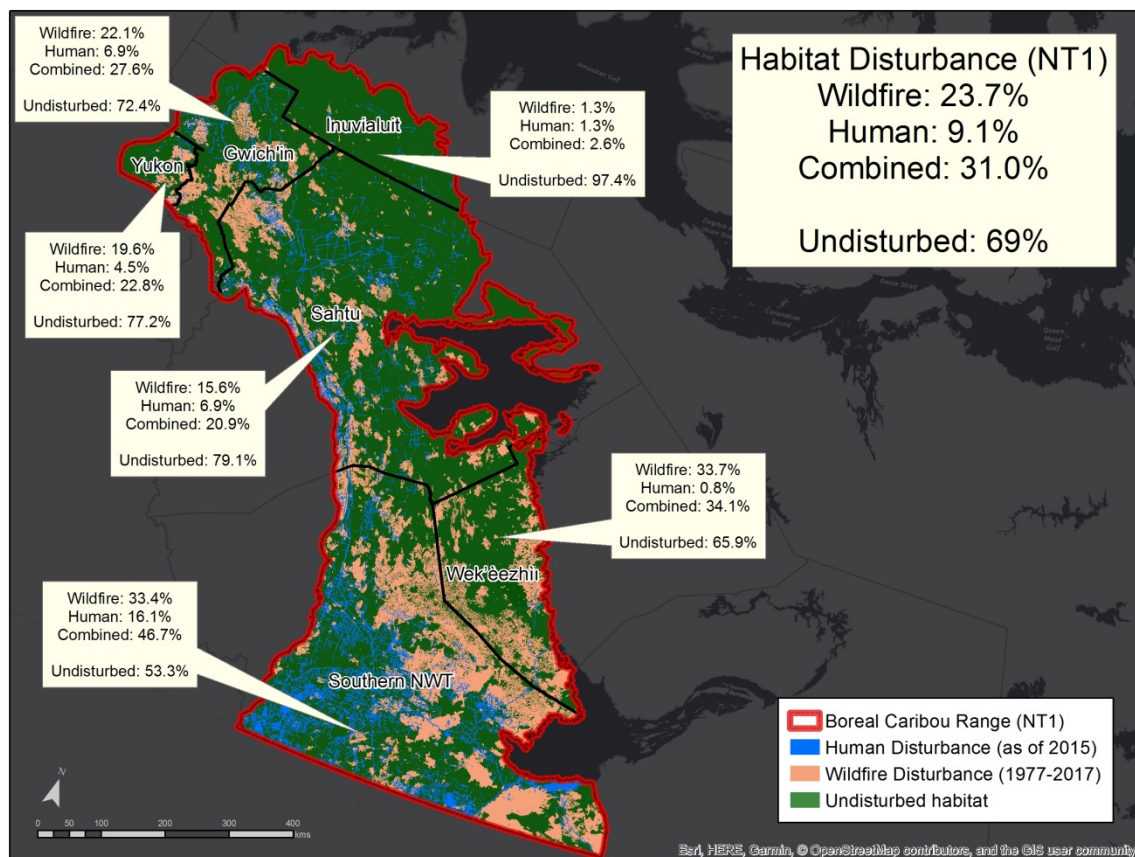
To manage natural and human disturbance in order to provide adequate caribou habitat to ensure **a healthy and sustainable boreal caribou population** across their NWT range that offers harvesting opportunities for present and future generations.

Considerations in developing the Framework

Choices made about the management of caribou habitat could have important impacts on how people use the land. The Framework takes into account a number of interests and priorities, including:

- Maintaining enough habitat across the NWT so that harvest of boreal caribou can continue
- A requirement under federal legislation to provide effective protection of critical habitat
- Ensuring flexibility for economic development
- Developing range plans that are achievable, credible and compatible with existing resource management and consistent with land claim agreements and Aboriginal and treaty rights
- Transparent decision-making and adaptability of range plans

Habitat disturbance in the NT1 boreal caribou range



What's in the Framework?

- Dividing the NWT portion of the range into five regional range plans, with a timeline for their development
- A tiered management approach, in which caribou habitat is assigned to different management classes (Basic, Enhanced, and Intensive) based on importance of habitat for caribou and the amount of human disturbance
- Habitat management actions for each management class that will address both development activity and wildfire management
- Approaches for implementing proposed management actions
- A plan for monitoring, review and revisions to range plans

Developing regional range plans

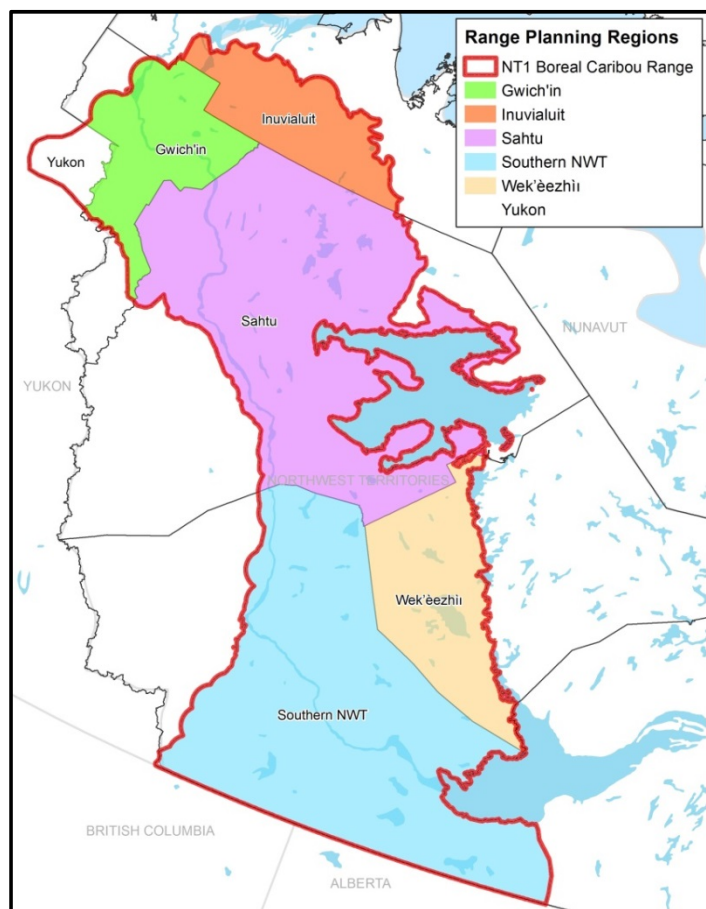
Given the size of the range and its overlap with several settled and unsettled land claim regions, separate plans will be developed for the Inuvialuit, Gwich'in, Sahtú, Wek'èezhìi and Southern NWT portions of the range. This approach acknowledges there are already established land use plans and regional land and water boards that guide land use decisions in settled land claim regions. It also allows the range plans to be tailored to the needs and conditions in each region.

It is important to note the Framework does not apply to the portion of the NT1 range that overlaps with the Yukon Territory. The Yukon Government plans to meet the 65% undisturbed habitat target for this part of the range through the implementation of the Peel Land Use Plan.

Managing habitat disturbance

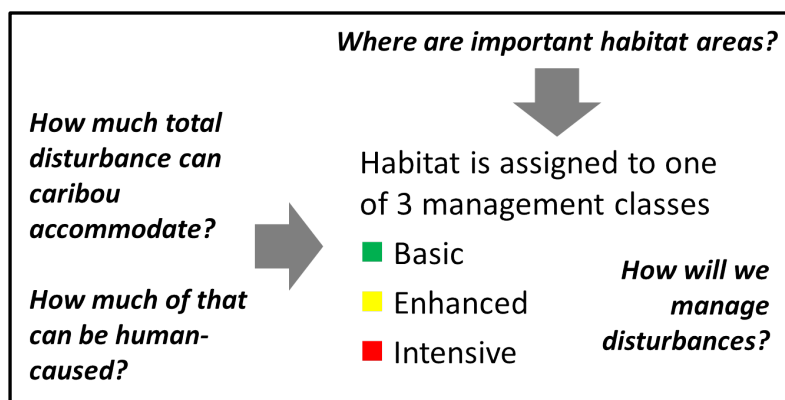
Caribou habitat in each region will be mapped and assigned to different management classes (Basic, Enhanced, and Intensive) based on importance of habitat for caribou and the amount of human disturbance. There will be a mix of management classes within each region. Stricter management actions will be required in areas with important habitat for boreal caribou, particularly in regions where the level of human disturbance is already high and exceeds regional thresholds.

Range planning regions



Maps of important habitat areas

Habitat areas throughout the boreal caribou range will be identified on maps as High, Medium or Low importance in each regional range plan. Local and traditional knowledge will play a central role in identifying and describing these areas. Monitoring data and scientific modeling that predicts which areas boreal caribou are likely to prefer will also be used to map habitat importance.



Long-term total disturbance limits

The Framework sets limits for the amount of total disturbance (both human and natural) that is acceptable for each region over the long term. These long-term total disturbance limits are based on a model that predicts the chance of maintaining a self-sustaining boreal caribou population with different amounts of habitat disturbance.

- The Southern NWT and Wek'èezhìi regions have limits of **40%** disturbance because these regions experience naturally higher levels of fire.
- The Sahtú, Gwich'in and Inuvialuit regions have limits of **30%** disturbance.

The total disturbance limits ensure there is no more than 35% disturbance in NWT range as a whole, as required by the national Recovery Strategy.

Human disturbance thresholds

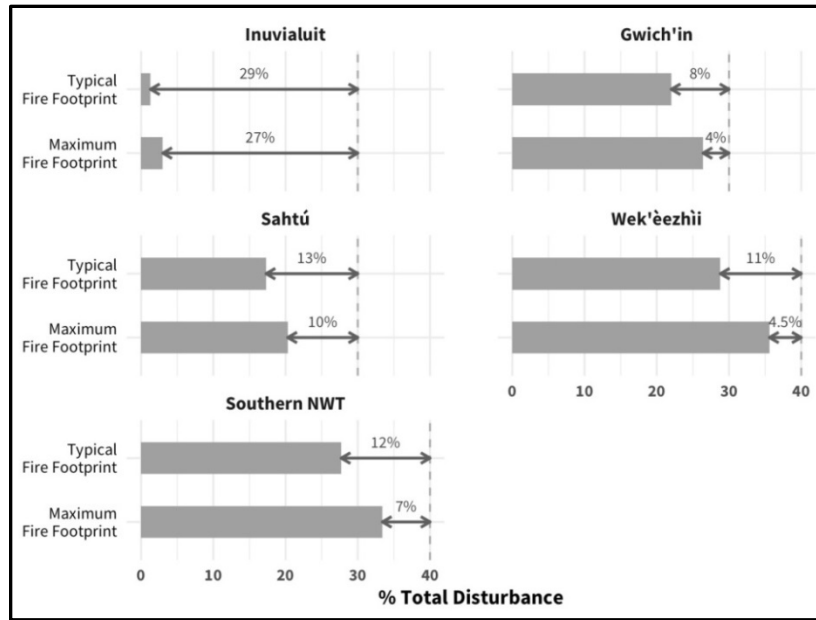
Thresholds for human disturbance (Tier 1, 2 or 3) are identified for each region (Table 1). Managing human disturbance to stay within these thresholds should ensure total disturbance to boreal caribou habitat stays at appropriate levels given the amount of fire disturbance that happens in different parts of the range (Figure 1).

Currently three regions (Wek'èezhìi, Sahtú and Inuvialuit) fall into Tier 1, the Gwich'in region falls in Tier 2 and the Southern NWT region falls in Tier 3 for human disturbance.

Table 1: Human disturbance thresholds

Region	Total disturbance limit (%)	Human Disturbance Thresholds (%)			Current Human Disturbance	
		Tier 1	Tier 2	Tier 3	%	Tier
Inuvialuit	< 30	< 27	27 – 29	> 29	1.3	Tier 1
Gwich'in	< 30	< 4	4 – 8	> 8	6.9	Tier 2
Sahtú	< 30	< 10	10 – 13	> 13	6.9	Tier 1
Wek'èezhìi	< 40	< 4.5	4.5 – 11	> 11	0.8	Tier 1
Southern NWT	< 40	< 7	7 – 12	> 12	16.1	Tier 3

Figure 1: Human disturbance thresholds



The bar graphs in Figure 1 show how much room there is for human disturbance in each region (horizontal arrows), based on the typical and maximum amounts of fire disturbance each region experiences (bars), before reaching the regional total disturbance limits (dotted lines).

Management classes

Caribou habitat within the range will be assigned to Basic, Enhanced and Intensive management classes. The management classes applied in each region will depend on the level of human disturbance (Tier 1, 2 or 3). Regions in Tier 3 will require a mix of Basic, Enhanced and Intensive management areas. Regions in Tier 1 and 2 will require a mix of Basic and Enhanced management.

The location of different management class areas will be guided by maps of important areas for boreal caribou, but will also consider existing land protections and development interests. Although the Framework provides some guidance on how much of each type of management class is needed, decisions about where to place different management classes, and exactly how much of each type is needed, will all be made during the process of writing the regional range plans.

The table below (Table 2) lays out the mix of Basic (green), Enhanced (yellow) and Intensive (red) management classes required in regional

Table 2: Management classes

range plans according to the human disturbance thresholds. Enhanced and Intensive management classes should be applied in areas that are more important to caribou.

Human disturbance thresholds	Relative importance of an area for boreal caribou		
	Low	Medium	High
Tier 3	Basic	Enhanced	Intensive
Tier 2	Basic	Enhanced	Enhanced
Tier 1	Basic	Basic	Enhanced

Management actions

Management actions are proposed for each management class that will address both human and wildfire disturbance (Table 3). These actions are intended to avoid creating new disturbance in undisturbed habitat, and to ensure that disturbed habitat is recovering as fast as or faster than the rate of new habitat disturbance in Enhanced and Intensive management areas.

Table 3: Management actions

Management Class	Management Actions
Basic	Development can proceed subject to normal conditions: <ul style="list-style-type: none"> • Encourage use of best practices and minimum standards (including actions to manage sensory disturbance from noise, light, vibrations and smells, and timing activities to avoid sensitive periods such as calving) • Manage wildfire as per current GNWT Fire Management Policy¹
Enhanced	Ensure no net loss (or gain) of undisturbed habitat: <ul style="list-style-type: none"> • Require use of best practices and guidelines (including actions to manage sensory disturbance and avoid sensitive periods such as calving) • Avoid disturbance of areas that provide important habitat features • Require re-use of areas that are already disturbed • Restore more habitat than will be disturbed • Designate key patches of caribou habitat as “values at risk” for fire management • Consider using prescribed burns or fire breaks for key patches of habitat to reduce likelihood of burning in the short term
Intensive	Same as Enhanced, <u>plus</u> : <ul style="list-style-type: none"> • Where new disturbance is unavoidable, demonstrate that the disturbance footprint is minimized as much as possible • As much as possible, restrict new disturbances to areas that do not provide important habitat features • Require higher ratios for the amount of area that must be restored to offset new disturbance • Increase priority for key patches of caribou habitat in fire management “values at risk” hierarchy

¹ www.enr.gov.nt.ca/sites/enr/files/documents/53_04_forest_fire_management_policy.pdf

How will range plans be applied?

A variety of approaches will be needed to ensure the range plans are used to guide decisions about land use that may impact caribou habitat.

The Framework provides an overview of the approaches that may be most suitable to do this, including: land use plans and community conservation plans, laws and regulations administered by the GNWT, environmental assessment processes, community-led guardian programs, and other planning and decision making processes available under Land Claim agreements.

Once management classes have been mapped and appropriate management actions have been chosen for each area, planners will check to see if any of those management actions are already required for the area (for example, in a land use plan). If they are not, planners will decide on the best way to ensure management actions are carried out.

Review and revision

Each regional range plan will be revised on a 10-year cycle to incorporate new knowledge about caribou, account for new wildfire and human disturbance and areas that have recovered, and incorporate lessons learned about how to manage caribou habitat. Every five years, a mid-term review will enable managers to make corrections and adjustments, if needed, in response to unexpected or rapidly changing conditions. The Framework identifies a number of situations that would trigger a full review and revision of a regional range plan at five years instead of 10 years.

Each regional plan will identify the types of monitoring needed to evaluate whether the range plan is achieving its objectives. The Framework also identifies knowledge gaps and research that is needed to better understand the main factors affecting boreal caribou in the NWT – especially the relationship between habitat disturbance and whether populations are growing, stable or declining.

Next steps

Range plans will be developed collaboratively through regional working groups made up of representatives from Indigenous governments and organizations, renewable resources boards, community members, GNWT departments, land use planning boards, land and water boards, federal agencies and non-governmental organizations, as appropriate.

Range plans are expected to take at least two years to develop and may require additional time to implement (Table 4). Range planning will start in the Southern NWT and Wek'èezhì regions, which have the highest levels of disturbance, followed by the Sahtú, Gwich'in, and Inuvialuit regions.

Table 4: Timeline

Timeline for Development	2018	2019	2020	2021	2022	2023
Range Planning Framework Engagement and Finalization						
Southern NWT Range Plan						
Wek'èezhì Range Plan						
Sahtú Range Plan						
Gwich'in Range Plan						
Inuvialuit Range Plan						