Preparing an Offsetting Plan for Woodland Caribou, Boreal Population

In preparing an offsetting plan, the Proponent must use scientifically defensible methods and techniques and provide a rationale for the methods and techniques chosen.

Required information*	Supplemental CWS guidance for offsetting residual impacts to Boreal Caribou for the Wheeler River Project
Section 1: Description of the residual impacts of the activity to the species at risk, its residences, its habitat and/or critical habitat	
• Describe the residual impacts that are likely to result from the activity, including the extent, duration and magnitude of the impacts on: o The number of individuals killed, harmed, harassed, captured or taken; and o The area of habitat(s), biophysical attributes and location of critical habitat affected (e.g. destroyed, permanently altered, disrupted).	• Include details on the loss of Critical Habitat, including biophysical features in the project area, amount of direct and indirect habitat loss. Note that disturbed areas with biophysical features are considered critical habitat based on the definitions in the amended Recovery Strategy (aRS). • Include mapping at appropriate scales (i.e. regional and local-scale mapping) and summary statistics (e.g. amount of direct and indirect disturbance) of biophysical features and habitat potential, as well as the baseline information, including Indigenous knowledge, on caribou.
Section 2: Offset description	
• Describe the proposed offset and explain how it will counterbalance the residual impacts of the activity. • Identify the location of the offset, including a map (e.g. scale of 1:50 000) and geographic coordinates. • Describe both the impact and offset sites, including existing land uses, present conditions, and relationship to the species, its residences and habitat and/or critical habitat. • Provide all timelines associated with the offsetting plan, including: o When the impact of the activity will occur; o When the benefits of the offset measures are expected to be realized; and o The timelines for implementation of each element of the plan. • Identify the parties, roles and responsibilities for implementing each aspect of the offset (including the party responsible for monitoring – see Section 6, below).	**Offset Location** • Consider an offset **location in proximity to the Project** that has comparable ecosystem values for caribou, such as species composition, biophysical attributes, and habitat structure, as the habitat impacted by the Project. • The offset location should be selected to maximize benefits to caribou and should consider the needs of Indigenous communities local to the project, who are impacted by the Project. • The offset location should provide caribou habitat (some combination of undisturbed habitat, biophysical attributes, and/or connectivity) once restoration is complete. • The plan should include evidence-based support for the selected location outlining how it maximizes benefits for caribou. • The plan should describe how the Proponent will coordinate with other off-setting activities to maximize effectiveness. The location should be selected to maximize benefits to caribou habitat such as where several offsetting or

• Describe the measures to avoid or mitigate any adverse impacts from the implementation of the offset itself. This includes the identification of the possible adverse impacts from the offset and analysis of how proposed measures will avoid or mitigate those adverse impacts, as well as the identification of the possible adverse impacts on other species, habitat or ecological processes.	restoration activities are being conducted in a coordinated manner (ideally provincially coordinated). **Offset Amount** • The plan should result in No Net Loss to caribou habitat, including both undisturbed habitat and biophysical habitat. • The total area required to be offset does not include restoration of the Project area. To be clear, onsite restoration, either progressive or during the decommissioning stage is not an offsetting measure. • Offsetting requirement for this project, based on the calculated area of critical habitat destruction, should have a ratio between 4:1 and 17:1 to be consistent with the recovery objectives. The final offset amount will be based on the final amount of critical habitat destruction using the aRS methodology. The total destruction of critical habitat to which the offset ratio will be applied for the calculation for the total offset amount is: ((Project footprint + 500m buffer) - (overlapping area(s) already considered disturbed habitat) + (area(s) that contains the biophysical attributes required by boreal woodland caribou to carry out life processes)). There are some key strategies that can help justify the reduction in the offset amounts required to achieve a no net loss outcome. • Minimizing time lags between impact occurrence and offset maturity is crucial for reducing required offset amounts, which can be achieved through implementing advanced offsets before impacts occur or by accelerating restoration outcomes to more quickly deliver functional ecological gains. • Enhancing offset quality effectively reduces multiplier requirements by targeting high ecological equivalence between impacted and offset sites, selecting locations with superior connectivity and landscape context, utilizing proven restoration techniques, and implementing offsets in areas with greater conservation priority or value. • Reducing long-term risks necessitates securing permanent legal protection for offset sites, implementing comprehensive monitoring programs with clear intervention triggers, and incorporating adaptive management frameworks

	that allow for evidence-based adjustments to ensure continued ecological performance over time.
	Offset habitat types • The plan should undertake an 'equivalency' approach to offsetting such that the adverse effects of the Project are compensated by protecting, enhancing, or restoring equivalent ecological function at the offsetting site. The biophysical attributes described for SK1 in Appendix H of the aRS should be used as a guide to determine equivalency of habitat types for offsetting locations in SK1. • The plan should focus on restoration of anthropogenically-disturbed caribou habitat (e.g. linear features and/or forest harvest operations) that will provide biophysical attributes when restored. • If no locations are available in SK1 to meet the 'equivalency' approach, then CWS will consider an offsetting location in SK2 that treats anthropogenically-disturbed areas with potential to provide undisturbed habitat or biophysical attributes as described for SK2 in Appendix H of the aRS. If this approach is agreed to provide the best outcome for caribou, it should be noted that the offset amount may need to be adjusted to account for offsetting in a range that has not been impacted by the Project.
	Offset Methods for Restoration • Include a description of the intended restoration methods. The description should include the rationale for the methods selected, their appropriateness for the targeted habitat type, and potential risks of failure. The plan should indicate if the restoration methods are previously tested and proven techniques and provide examples if available. • Coordinate with other offsetting activities to maximize effectiveness. • On-the-ground restoration activities should have an Operational Plan and a mitigation plan, that includes response to the presence of caribou in the restoration area, particularly during calving season.
	Timing of Restoration • The plan should include a clear description and timeline of the intended restoration actions and methods, including a schedule of activities and

	evidence-based rationale that supports the use of the proposed method(s) for the habitat type(s) being restored.
Section 3: Offset ownership	
• Identify who owns the offset and provide proof that the offset can be undertaken by the relevant parties. • Confirm that all commitments vis à vis the offset will be transferred to any new owner or operator.	• The plan should include information on ownership of the offset and any plans for provincially led protection of offset.
Section 4: Offset assessment	

• Describe the projected future conditions at the impact and offset sites (use conservative estimates):
  ○ Without the offset; and
  ○ With the offset.
• Describe the timing of the short term and long-term benefits, in particular in relation to the timing of the adverse impacts of the activity.
  ○ Describe the short-term and long-term benefits of the offset, including how they:
  ▪ Compare to the anticipated residual impacts of the activity (from Section 1);
  ▪ Compare to the duration of the adverse impacts of the activity; and
  ▪ Contribute to the survival and recovery of the species, including attainment of the population and distribution objectives for the species in question (where the Government has established those objectives).
• Explain how the benefits of the offset were determined.
  ○ Include a description of the extent to which the type of offset has been demonstrated to be effective, particularly in similar circumstances;
  ○ Describe all relevant uncertainties.
• Demonstrate that the offset is additional:
  ○ Describe how the offset will provide benefits to the species above what is already taking place or planned. This must include the description of the business-as-usual scenario.
	• Include a risk assessment of the offset not functioning as intended, and design features to reduce risk of offset failure.

○ If applicable, describe any government funding received to help pay for the offset.	
Section 5: Contingency measures	
• Describe and characterize the risks that the offset will not function as intended, and the potential impacts, accounting for the risks of partial and complete failure. • Describe the design features to prevent risks from occurring. • Describe the contingency measures that will be put in place if the offset does not function as intended.	• Include contingency measures should the offset not be successful.
• Describe the monitoring measures that will be used to assess the effectiveness of the offset, including: ○ The methodology and parameters to be used to measure the effectiveness of the offset; ○ The methodology and parameters to be used to identify performance failures and to trigger contingency measures; ○ Timelines (expected frequency of monitoring). • Describe responsibilities and timelines for verification of offset implementation by a third party (can be an independent organization or a group of stakeholders). • Provide the timelines and method for reporting.	• Include a commitment to report on progress and the level of success observed at off-setting location. The plan should list the types of information that will be provided to demonstrate success, and the frequency of the reporting/monitoring.

* The Required information column was modified from the Species At Risk Act Permitting Policy (2016)