

## REQUEST FOR PROPOSALS

The Alberta Regional Caribou Knowledge Partnership (ARCKP) is inviting members of the research and consulting communities to submit *proposals* in response to a project opportunity identified by the partnership.

Proposals will be reviewed by the ARCKP, and selected submissions will be contacted if further information is required. Details are provided below.

### Project: Reducing the effects of non-permanent forestry roads on woodland caribou in Alberta

#### Submission Requirements:

- Submit project questions and the final proposal to ARCKP Coordinator, Kristy Burke ([kristy@fuseconsulting.ca](mailto:kristy@fuseconsulting.ca)) **by 11:59 pm (MDT), February 1, 2023**. The Question period will close January 27, 4:30 PM (MDT).
- Maximum of 8 pages.
- Include a description of the proposed approach and methodology your firm/organization would apply to complete the required deliverables and a detailed project timeline and budget.
- Describe any potential risks associated with the proposed approach or successful completion of the project and steps that will be taken to mitigate these risks.
- Include the names, qualifications and experience of the individuals who will be involved in the project (you may attach individual or team profiles as an appendix beyond the 8-page maximum). Please also note any proposed collaborations.
- Provide a detailed project budget (including GST and any anticipated administration fees). Budgets should be considerate of the ARCKP's annual funding limitations and demonstrate strong value to the ARCKP.

#### Evaluation Criteria:

| Criteria  | Weight |
|---|--------|
| Experience and qualifications of the project team   | 20%    |
| Clearly defined, innovative approach to completing the proposed work  | 35%    |
| Clearly defined and appropriate project timeline and clear deliverables that contribute to ARCKP objectives | 25%    |
| Clearly presented budget that demonstrates value to the ARCKP   | 20%    |

## Background on Alberta Regional Caribou Knowledge Partnership:

Supporting caribou conservation while sustaining a working landscape is a difficult balancing act that involves a variety of stakeholders. This balancing act is made even more challenging by the ecological differences between regional ecosystems. Current thresholds and criteria for woodland caribou recovery offer an important focal point for land-use planning. To achieve these goals, there is still a significant need for knowledge sharing between regions of the province, and for the development of on-the-ground actions to balance the needs of woodland caribou and industrial activities. Furthermore, to ensure forestry activities can contribute to woodland caribou conservation objectives, there is a need to explore how regionalized knowledge and solutions can provide management direction for woodland caribou conservation on working landscapes.

To make this vision a reality, stakeholders from across Alberta established the Alberta Regional Caribou Knowledge Partnership (ARCKP), a collaboration between Alberta's forestry sector and the provincial government. This multi-faceted initiative addresses key knowledge gaps in region-specific woodland caribou ecology. The ARCKP works closely with partners and technical experts to identify important knowledge gaps and allocates resources to research projects, synthesis projects, modelling projects, and knowledge exchange efforts that are best suited to meet the interests of their partners. The partnership is committed to knowledge sharing and making project outcomes easily accessible to all stakeholders.

The ARCKP is an association of fRI Research and funded by the Forest Resource Improvement Association of Alberta (FRIAA) through the support of 12 forestry companies in Alberta, with additional support from the Government of Alberta. More information about the ARCKP can be found at <http://arckp.friresearch.ca>.

## PROJECT DESCRIPTION

Roads and access are important elements of forestry operations. Research has indicated that roads can have significant negative effects on caribou population persistence, and thus they contribute to range-level disturbance threshold targets set by the Federal Government that are used for landscape-level caribou management. Current provincial scale analyses related to woodland caribou range planning calculate the amount of disturbed habitat by adding a 500 m buffer to all resource roads, including temporary/in-block roads. This decision was based on rigorous research conducted by the federal government, that indicated anthropogenic disturbance had a strong ability to predict caribou population persistence when a 500 m buffer was added. Road disturbances, therefore, can be economically challenging to forestry companies because the buffer makes it difficult for forest companies to harvest timber from an area without exceeding ECCC's disturbance target of 35% disturbance, particularly in landscapes with extensive footprint from multiple overlapping tenure holders. Careful consideration of road planning, road design, and road reclamation are thus important from both an economic and woodland caribou perspective.

How roads are designed, and how they are recovered, are linked to the harvest strategy being applied to an area. For example, temporary roads used for an aggregated harvesting scenario are built and recovered differently from those used for a clearcut with retention, or business as usual (BAU), harvesting scenario. In the case of aggregated harvests, roads will be required longer than many other temporary roads to facilitate longer access into the harvest area. Regional differences and local ecosystems add further complexities that need to be considered in road planning, design and recovery to support positive woodland caribou outcomes.

The ARCKP is interested in better understanding the drivers of road-related habitat disturbance effects, specifically temporary/in-block roads, on woodland caribou. Partners are interested in identifying best practices that could reduce or mitigate road footprint and the impacts of these features on woodland caribou and exploring opportunities to contribute to the economic health of the industry. Framed in a simple way, temporary forestry roads present an area of opportunity to explore drivers of these disturbances on woodland caribou, and how these drivers can be mitigated through planning, road design and/or reclamation of existing roads.

## OBJECTIVES

- Develop a deeper understanding of the magnitude and longevity of the impacts of temporary roads on woodland caribou and identify and advance new and better ways to plan, design, construct, use and reclaim temporary roads within and between harvest areas for better and faster outcomes for woodland caribou.
- Clarify how optimal or improved temporary road design/recovery potentially differs between different harvesting approaches, such as aggregated harvesting and business as usual approaches. This can identify best practices specific to each harvesting approach and help contribute to faster recovery of temporary roads.
- Understand how temporary road planning, design, construction, use and reclamation is linked to key process drivers of woodland caribou recovery, and clarify how operational staff could implement new planning, design, construction, use and reclamation practices to realize positive outcomes for woodland caribou.

## SCOPE

This project will require the proponent to:

- Include a BAU analysis of temporary forestry roads to synthesize the standards and practices that are currently used. This includes all current standards and protocols surrounding the planning, design, construction, use, and reclamation of temporary forestry roads.
- Conduct a synthesis/literature review to develop a research brief that describes the key mechanistic drivers of roads on woodland caribou habitat and population persistence, and how current temporary road planning, design, construction, use and reclamation practices contribute to these processes. The brief should clarify how adaptations in these areas could be implemented to minimize adverse effects on woodland caribou outcomes. It should also include a summary of key science that informed the implementation of the 500 m buffer on anthropogenic disturbance in the federal recovery strategy to help clarify for a wide range of audiences the influences of roads on woodland caribou population persistence.
- Review recent science to confirm our understanding of the impacts of temporary roads on caribou.
- Draw on knowledge gathered from the analyses conducted above, to develop alternatives and/or verify current best practices on how to plan, build, use and recover temporary roads in woodland caribou ranges to reduce road-related effects (considering the magnitude and longevity of the effects) on woodland caribou habitat and predator-prey interactions.

- Identify and discuss how short-term/operational practices in temporary road restoration can contribute to the longer-term road restoration goals being set at the subregional planning and access management planning levels.
- An economic cost-benefit analysis should be completed to understand the financial implications of any proposed changes to improve temporary road planning, construction, use and reclamation.

*Key questions of interest:*

- What are the current practices related to the planning, design, construction, use, and reclamation of temporary forestry roads in Alberta?
- What can/do we understand about the specific causal factors that make roads detrimental to woodland caribou, and how can these factors be addressed to improve outcomes for woodland caribou?
- What is the magnitude and the longevity of the impacts of roads on woodland caribou? Is it high magnitude with a low cost to address? Or low magnitude with a high cost to address? What is the longevity of the impact on woodland caribou and are there ways through road design/reclamation that we can shorten the impact?
- How can roads be built that are easier and faster to reclaim to a point they no longer impact key drivers of woodland caribou populations (e.g., wolf movement, browse availability etc.)?
- Identify and analyze areas of overlap and areas of differences between road reclamation and seismic restoration, and whether there are opportunities to learn from various techniques.
- Are there alternative planning and operational practices that could contribute to better design and use of temporary/in-block roads for improved outcomes for woodland caribou? How might these improvements impact key drivers of woodland caribou population persistence?
- What are the anticipated costs involved in adopting any new practices identified through this review?

Inclusion of Indigenous knowledge and learning systems is an important aspect to advancing Alberta's forestry operations and woodland caribou management. Where appropriate, we encourage proposers to incorporate Indigenous perspectives into their proposed approach.

## **KEY DELIVERABLES**

- One interim report (maximum of two pages) outlining progress and any changes to the proposed approach (date to be negotiated).
- A draft final report in Microsoft Word (.docx) format (date to be negotiated). This draft report will then be circulated to key project advisors and edits will be compiled for the contractor to address.
- A final report that clearly meets the requirement of the project Objective and Scope and includes any additional/edits requested during the partnership's review of the draft report (date to be negotiated). The final report will include a 2-page executive summary.

- A brief 5-10 page summary of key project finding (date to be negotiated).
- A presentation of findings to the ARCKP Steering Committee and Technical Subcommittee (date to be negotiated but prior to final approval/publication of the report).
- A 30 to 40-minute webinar presentation (coordinated by the ARCKP) of the final report delivered to the broader ARCKP stakeholder audience.

## **TIMELINE**

This project is expected to be completed within 12 months from the date of initiation, which will occur in early 2023. A start date will be negotiated between the ARCKP and the successful candidate. Proposals should include a detailed timeline for the entire project undertaking and identify when the key deliverables above will be available.

## **BUDGET**

Proposals must include a detailed budget that clearly outlines anticipated project costs (<\$100,000). Proponents should include clear breakdowns of anticipated hours for each task, and hourly rates billed for resources assigned to the project. Proponents should also clearly outline any administration and overhead costs (if applicable), contractor costs, materials and supplies, and travel (if applicable). The ARCKP evaluates budgets on the value they demonstrate given the approach and expertise proponents outline in their proposals.

## **NOTIFICATION TO PROPOSERS**

Proposers may be contacted for additional information or clarification. Final decisions will be made by mid-January 2023, and both successful and unsuccessful applicants will be notified via the contact information provided in your proposal. Collaborations are encouraged, however vendors are asked to clearly indicate any collaborations in the submitted proposal.