

## Project Profile

<b>Project Name:</b>	Boreal Caribou Habitat Restoration Framework
<b>Project Number:</b>	BCIP-2018-04
<b>Proponent:</b>	Golder Associates Ltd. and Alberta Biodiversity Monitoring Institute (ABMI)
<b>Funding Envelope:</b>	Boreal Caribou
<b>Timeframe:</b>	January 3 to June 30, 2018

## Project Objectives

The objective of this project is to organize and facilitate a one day workshop, and based on previous research and workshop discussion results, develop key principles for planning restoration of boreal caribou habitat and present those findings in a Restoration Framework Report which can guide range-specific restoration planning.

## Project Description

The need to begin implementing large-scale habitat restoration programs in boreal caribou ranges in British Columbia is recognized by regulatory bodies, Indigenous peoples, and industry. The development of this Project will build momentum in BC, and more clearly define a collaborative umbrella of the Boreal Caribou Implementation Plan (BCIP). Golder has partnered with the ABMI for the development of the Restoration Framework to build off of the restoration and research work that both Golder and ABMI have completed previously for BC OGRIS, as well as to bring together our ecological, Indigenous community knowledge, implementation, multi-stakeholder facilitation and logistical expertise together. Both Golder and ABMI feel that we can develop a Framework which captures both functional and ecological restoration linked to priority area selection, incorporation of Traditional Ecological Knowledge and Indigenous community perspectives, monitoring, trajectories around footprint for future planning, funding mechanism(s) and triggers for implementation.

The benefits of a Restoration Framework would be to define key principals to define priority areas both at and within the range scale, and provide the objectives, indicators of success, identification of factors to improve the effectiveness and efficacy of restoration efforts and a clear road map for the planning, permitting, funding and coordination needed to support to achieve coordinated restoration programs within these priority areas. The Boreal Caribou Habitat Restoration Framework would aim to provide a process to achieve effective and practical restoration across boreal caribou ranges in BC. The Framework would provide guidance around potential barriers to implementation including administrative barriers, legal considerations, and security of investment, and attempt to identify the numerous competing objectives and policies/acts that need to be integrated and aligned to achieve successful habitat restoration.

## Project Background

Under the Recovery Strategy for the Woodland Caribou (*Rangifer tarandus caribou*), Boreal Population in Canada (Environment Canada 2012), landscape level planning is stressed, such as planning development activities at appropriate temporal and spatial scales to achieve 65% undisturbed habitat in a range as a disturbance management threshold. One of the management approaches in the federal recovery strategy to address effects of habitat alteration on boreal caribou is to undertake coordinated actions to reclaim boreal caribou habitat through restoration efforts. This approach has been carried through to the Boreal Caribou Implementation Plan (BCIP; BC MOE 2011; currently under revision (BC MOE 2017) with one of two primary goals set by the provincial cabinet for boreal caribou recovery efforts to “maintain a positive habitat trend across each boreal caribou range”. The overall objective of caribou habitat restoration is to transition anthropogenically disturbed, low quality woodland caribou habitat into higher quality functional habitat, with a particular focus on the immediacy of addressing linear disturbance effects on wolf movement and subsequent predation risk to caribou.

Although a number of restoration documents or programs have been undertaken, the focus has been based on a western science direction on which boreal caribou ranges will benefit the most from habitat restoration and moving towards a minimum of 65% undisturbed habitat within ranges; with the suggestion that ranges need focused and concentrated restoration efforts to return them to ecologically functioning caribou habitat. However, Indigenous communities have prepared, or have desire to incorporate Traditional Ecological Knowledge and Indigenous community perspectives, into the desired end state, the planning/priority setting, and the implementation of large scale restoration programs.

## Project Approach

The following steps outline the proposed approach for the Project.

1. Define preliminary objectives for boreal caribou habitat restoration in BC, including short and long term objectives and desired end state, summarized in a pre-workshop background materials document and used as a starting point for discussion at the workshop.
  - Provide definitions of functional restoration and ecological restoration.
    - Describe the altered habitat conditions and a broad overview of known regulatory barriers that are currently impacting caribou population recovery goals.
    - Develop a preliminary, broad disturbance map and summary of current and future foreseeable land users in each range.
2. Also within the workshop background materials, using a strategic list of ecological and economic criteria developed by the Ministry of Forests, Lands, Natural Resource Operations and Rural Development (FLNR) for South Peace central mountain caribou and the weighted variables used in the optimization process for ranking treatment sites in the Parker Caribou Range Restoration Pilot Project as a starting point to create a preliminary list of criteria for prioritizing areas for restoration (for further discussion at the workshop).
3. Prepare base map data and shapefiles necessary to inform a discussion at the workshop about the process of identifying priority zones and areas for restoration.

4. Coordinate and facilitate a one-day workshop with technical, industrial, Indigenous community, regulatory and provincial experts to work through the vision of success, opportunities and learnings for planning and implementing restoration over range-scale restoration programs. Discuss processes to be included within the framework. Invitees, to be determined upon contract securement and discussion with REMB Project Manager and FLNR Contract Monitor.
5. At the completion of the workshop, a list of criteria and other findings will be summarized from workshop discussion to provide a basis for developing a restoration process including prioritization of restoration within and between ranges. These criteria will be refined and a conference call will take place with select individuals from the workshop to refine and achieve consensus. A workshop summary report will be provided to all workshop attendees to review and provide further comment.
6. Develop a draft and final Restoration Framework report based on learnings from workshop discussion, which includes key principles for planning and implementing restoration, factors to improve effectiveness and efficiency of restoration programs, remaining constraints and uncertainties to address prior to planning restoration, and an overview of restoration approach that would be most appropriate within NE BC.

## **Project Deliverables**

The deliverables from this project include the following:

1. Habitat Restoration Framework for Boreal Caribou Ranges.