

**British Columbia Boreal Caribou**  
**MOU Research and Effectiveness Monitoring Board**  
**Terms of Reference**

June, 2013

These Terms of Reference (ToR) support applied research, monitoring, and management of boreal caribou within British Columbia (BC) as guided by the ["Implementation Plan for the Ongoing Management of Boreal Caribou \(\*Rangifer tarandus caribou\* pop. 14\) in British Columbia"](#) (BCIP). They are intended to provide direction to the revised Research and Effectiveness Monitoring Board (REMB) in providing recommendations to the MOU Strategic Leadership Team (MSLT) on allocation of research and monitoring resources and on management of boreal caribou in BC. The REMB is a harmonized group composed of former members of the MOU Technical Working Group (MTWG) and the REMB. The MTWG and REMB are identified in the original 2010 MOU. Based on performance of those groups and an interest in efficient use of human resources, the groups were combined, but retain the same functions.

## **1.0 BACKGROUND**

On June 21, 2010, government announced actions to manage boreal caribou in BC. Specifically, government committed to:

- Calendar Range - Establish Resource Review Areas (in June 2010, this comprised 85% of untenured area primarily outside of the Cordova Embayment that overlapped with known core caribou habitat areas); manage future footprint and apply mitigation actions;
- Chinchaga Range - Establish Resource Review Areas (in June 2010, this comprised 42% of contiguous untenured areas in the northwest portion of the range area); restore legacy impacts, manage future footprint and apply mitigation actions;
- Maxhamish Range - Manage future footprint;
- Parker Range - Restore legacy impacts and manage future footprint;
- Prophet Range - Establish Resource Review Areas (in June 2010, this comprised 100% of all untenured area); restore legacy impacts, manage future footprint and apply mitigation actions; and,
- Snake-Sahtaneh range - Restore legacy impacts and manage future footprint.

Meeting this commitment is expected to achieve the following goals across the provincial range of Boreal Caribou in BC:

- Decrease the expected rate of decline in the Boreal Caribou population.
- Significantly reduce the risk of Boreal Caribou extirpation in the Calendar, Chinchaga, Maxhamish, and Prophet ranges within 50 years.

In order to support government in achieving these goals, the Canadian Association of Petroleum Producers (CAPP), Explorers and Producers Association of Canada (EPAC), and the government of British Columbia (“the parties”) signed a Memorandum of Understanding (MOU). The intent of the MOU is to establish a framework to direct funds to support the management of boreal caribou as guided the BCIP.

The Parties recognize that the final decisions for the management of boreal caribou rest with the BC government.

## **2.0 PRINCIPLES**

The Parties have agreed to be guided by the following principles:

- Application of sound science;
- Objectives and actions must be measurable;
- Shared responsibility;
- Application of adaptive management<sup>1</sup> as it is an essential component contributing to the success of boreal caribou management.

## **3.0 PURPOSE**

The purpose of the REMB is:

- To provide unbiased scientific updates, reviews, and advice to the MSLT from the applied research and effectiveness monitoring projects;
- To ensure applied research and monitoring projects are implemented in prioritized manner that meets government’s objectives and goals as defined by MSLT (Appendix 1);
- To ensure applied research and monitoring projects are implemented in a manner that is consistent with sound science and best practice and seek to continuously improve boreal caribou management.
- To ensure that scientific projects are adequately funded and completed on time and within budget;
- To identify areas where coordination between industry, academia, government, and other scientists will accelerate learning and collectively lead to better understanding; and

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<sup>1</sup> Adaptive management means “a formal, systematic, and rigorous approach to learning from the outcomes of management actions, accommodating change, and improving management. It involves synthesizing existing knowledge, exploring alternative actions, and making explicit forecasts about their outcomes.” (Wilson and Nyberg 2009).

- To ensure effective collection, storage and distribution of data and reports derived from projects implemented under the MOU.

#### **4.0 ROLES AND RESPONSIBILITIES**

The roles and responsibility of the REMB are to:

- Coordinate, develop and deliver a research and monitoring program to address prioritized data gaps necessary to meet government’s objectives for boreal caribou management. This work will include, but is not limited to:
  - recommend to the MSLT funding priorities for boreal caribou research and monitoring activities (Appendix 1); and,
  - develop requests for proposals that align with the prioritized MSLT objectives (Appendix 1).
- Review, evaluate, and report the boreal caribou research results and monitoring outcomes and progress on implementation activities for all management levers related to boreal caribou. This work will include, but is not limited to:
  - provide annual project completion reports containing summary of data and results; and,
  - provide project-specific update reports to the MSLT on a quarterly basis, with consideration of significant developments to scope, budget, and timelines as related to the alignment to the prioritized MSLT objectives (Appendix 1);
- Support Science Community and Environmental Knowledge (SCEK) Program Manager with contract administration and financial reporting obligations consistent with existing SCEK funding processes;
- Work with SCEK Program Manager to develop and support a common and shared data and report warehouse;
- Appoint co-chairs to manage the REMB and associated process;
- Appoint and support a Research and Monitoring Coordinator (see below for details); and
- Meet quarterly or ad-hoc at the discretion of the REMB chairs.

A Research and Monitoring Coordinator will provide leadership for technical members of the REMB and for progress towards business prioritized by the MSLT. The Coordinator will ensure a transparent process enabling the principles of the MoU to be realized, and will coordinate and participate with data compilation from each project into program level analyses that help measure effectiveness of management actions.

## **5.0 DELIVERABLES**

The REMB will provide:

- Develop an annual workplan based on research and management priorities for boreal caribou for approval by the MSLT by May 31<sup>st</sup> of each year;
- Develop an annual report to be submitted to the MSLT by May 31<sup>st</sup> of each year, reporting on research and monitoring initiatives and outcomes, and success of boreal caribou management;
- Distribute reports, results and management outcomes through appropriate channels;
- Develop (if requested) a research update report to the MSLT by October 31<sup>st</sup> of each year, reporting on applied research and monitoring initiatives and outcomes, and success of boreal caribou management.

## **6.0 TEAM MEMBERSHIP**

Membership on the REMB will be comprised of individuals that form a balanced background of academic and technical experience related to wildlife research, species recovery planning, and oil and gas development. Members will be engaged in on-going caribou research and monitoring related to MSLT objectives (Appendix 1). Oil and gas representatives will have industrial development experience and a strong background in wildlife ecology. Government and industry representatives will be professionals with responsibilities related to designing and implementing wildlife population monitoring projects and programs. Any other meaningfully engaged representatives (as recommended by the REMB co-chairs and approved by the MSLT) will have similarly suited background, expertise or experience.

The REMB will function on a two year term and consist of representatives from:

- 1) Ministry of Natural Gas Development, Oil and Gas Division;
- 2) Ministry of Forests, Lands and Natural Resource Operations, Fish and Wildlife Recovery;
- 3) Ministry of Forests, Lands and Natural Resource Operations, Northeast Operations;
- 4) Ministry of Environment, Ecosystem Branch;
- 5) Oil and Gas Commission, Environmental Stewardship;
- 6) CAPP, BC policy representative;
- 7) Three CAPP-member industry technical representatives;
- 8) Treaty 8 First Nations Representative;
- 9) Research and Monitoring Coordinator;
- 10) Other parties as determined by the MSLT;

Each member organization will endeavour to keep the number of representatives to a minimum and the overall group should not exceed 10 participants. If members need to

leave the REMB within their two year term, they will be required to find a replacement. Replacements will need to be approved by the MSLT. Member organizations will be responsible for their own costs to resource to effective participation at meetings and workshops. A current REMB membership has been identified (Appendix 2).

**7.0 CHAIR AND MEETING MANAGEMENT**

The REMB will be co-chaired by a representative from CAPP and the BC Ministry of Forests, Lands and Natural Resource Operations. Co-chairs will be expected to attend the MSLT meetings to report on REMB business.

The REMB co-chairs will define the rules and procedures associated with, but not limited to, meetings and meeting agendas, meeting notes and records, meeting “action items” and follow-up, establishing the extent of members’ participation and commitment. In addition, CAPP will provide meeting secretarial services if required that will be used by the co-chairs and any neutral facilitator when required. The neutral facilitator will be determined by the Co-Chairs.

**8.0 DISPUTE RESOLUTION**

The REMB will attempt to resolve any issues by consensus. If consensus cannot be achieved in a timely manner, the co-chairs will assemble the opposing viewpoints and bring them jointly forward to the MSLT. The MSLT will resolve any issues brought forward and their decision is considered final.

**9.0 SIGNATURE AND DATES**

_____ Signature	_____ Date	_____ Signature	_____ Date
Mark Zacharias, Assistant Deputy Minister Environmental Sustainability and Strategic Policy Division, BC Ministry of Environment		Sherry Sian, Manager Resource Access, Canadian Association of Petroleum Producers	

## Appendix 1 – MSLT Research and Monitoring Objectives

THEME	GOAL	OBJECTIVE	MOU PARTNER
Wildlife Population Management	Measure and monitor caribou populations	Develop cost-efficient methods of estimating caribou population size	MSLT
		Measure and monitor population size and rates of population change (lambda) for individual ranges	MSLT
		Investigate and determine genetic distinction and connectivity among ranges	MSLT
		Investigate and determine caribou population response to changes in predator density	MSLT
	Manage and manage predator densities in and adjacent to caribou ranges	Measure and monitor predator population structure, densities and distribution	MSLT
		Manage predator populations	Government
		Monitor predator densities pre- and post-control	MSLT
	Measure and manage primary prey populations in and adjacent to caribou ranges	Measure and monitor prey population structure, densities and distribution	MSLT
		Manage primary prey populations	Government
		Investigate and determine primary prey responses to management actions	MSLT
Habitat Management	Determine caribou habitat availability and use within each range	Quantify existing habitat conditions (use, suitability, capability, effectiveness, intactness) within each range	MSLT
	Determine primary prey (moose, deer, beaver) habitat availability within each range	Quantify existing habitat conditions	MSLT
	Manage industrial footprint	Inventory and characterize existing footprint	MSLT
		Prioritize restoration targets (by footprint type and range urgency)	MSLT
		Manage future industrial footprint	Industry
		Evaluate effectiveness of restoration and mitigation measures	All
Administration and Support	Develop Secretariat and Management Capacity	Staff a Boreal Caribou Research and Monitoring Coordinator and contract administrator (SCEK)	MSLT
		Develop data warehousing protocols and partnerships	MSLT
		Communicate progress and results to all stakeholders and members	All

## **Appendix 2 – Current REMB Membership**

- 1) **Chris Ritchie** - (co-chair) Ministry of Forests, Lands and Natural Resource Operations, Fish and Wildlife Recovery
- 2) **Gary Sargent** - (co-chair) Canadian Association of Petroleum Producers, BC policy representative
- 3) **Treaty 8 First Nations Representative** - TBD
- 4) **Megan Watters** - Ministry of Forests, Lands and Natural Resource Operations, Northeast Operations
- 5) **Chris Pasztor** - Ministry of Environment, Ecosystem Branch
- 6) **Matt Austin** - Ministry of Natural Gas Development
- 7) **Lisa Helmer** - Oil and Gas Commission, Environmental Stewardship
- 8) **Scott Grindal** - Canadian Association of Petroleum Producers- industry technical representative
- 9) **Scott Wagner** - Canadian Association of Petroleum Producers- industry technical representative
- 10) **Steve Wilson** - Research and Monitoring Coordinator