

Draft Terms of Reference for a Caribou Risk Assessment - Whistlers Creek in Jasper National Park

February 18, 2011

Purpose:

Parks Canada and Marmot Basin Ski Area will collaborate to assess the potential risk to caribou arising from any ski area development in the Whistlers Creek drainage of Jasper National Park. The purpose is to gather and analyze information to allow Parks Canada to determine whether or not to consider, in a future long range plan, proposals to develop ski lift access in the Outer Limits and Tres Hombres areas and a skier egress, based on potential impacts on the local caribou population. The caribou risk assessment will also inform decisions for managing off-piste skiing and other human uses in the Whistlers Creek drainage.

Guidance for these terms of reference comes from the approved *Marmot Basin Ski Area Site Guidelines for Development and Use (Site Guidelines)* and strategic environmental assessment (SEA). These documents set out expectations for the purpose, scope, and approach to the caribou risk assessment in order to ensure scientifically sound and effective information for future decision making. Readers are directed to the *Site Guidelines* for a complete understanding of the context and policies.

Background:

Marmot Basin's leasehold includes the winter and summer range of the southern mountain population of woodland caribou, listed as "threatened" under the *Species At Risk Act* (SARA). The population of caribou considered "local" to this area is known as the Tonquin herd, resident in the area of the Tonquin Valley, Jasper National Park. The park is also home to three other populations known as the Brazeau, Maligne and a la Peche. Regionally there are southern mountain caribou herds to the north and west of Jasper National Park in Alberta and British Columbia.

The Whistlers Creek drainage can be identified from the south branch headwaters of Whistlers Creek near Marmot Pass to approximately the 1175 m elevation mark downstream, south to the Marmot Basin leasehold boundary and north to approximately the 2000 m elevation slope on Whistlers Mountain. This area of interest is an important source of terrestrial and arboreal lichens (food for caribou), a movement corridor for caribou and other wildlife, and it contains a mineral lick that is important for wildlife.

The Marmot Basin *Site Guidelines* outline what development and use may be considered, and establish growth limits, ecological management parameters, and approaches to enhance the character of the ski area's operation to reflect its location in a national park and World Heritage Site. The *Site Guidelines* and SEA were prepared through a collaborative process between Parks Canada and Marmot Basin, with public consultation. The *Site Guidelines* are consistent with Parks Canada's overarching *Ski Area Management Guidelines*, and provide direction for preparing long range plans.

Marmot Basin has identified three potential initiatives in the Whistlers Creek drainage that the ski area may wish to propose for consideration in a future long range plan: these are lift access in the Outer Limits and Tres Hombres areas, and a skier's egress trail. Accompanying these developments may be several other supporting developments (maintenance and egress routes) and the need for avalanche control.

Before any decisions can be made concerning potential development in the Whistlers Creek drainage in a future long range plan, the *Site Guidelines* require completion of a risk assessment to examine the impact on caribou and the effectiveness of potential mitigations to manage human use in this area. Once the risk assessment is complete, Parks Canada will decide whether consideration can be given to these potential initiatives. The risk assessment will also provide information for managing off-piste and out-of-bounds skiing in ways that contribute to achieving the ecological management parameters for caribou.

Concurrent with the risk assessment for the Whistlers Creek drainage, Parks Canada is preparing a caribou conservation strategy for Jasper National Park. The overarching objective is to manage caribou and caribou habitat in Jasper National Park to improve conditions so that the caribou population can increase. The park caribou conservation strategy will contribute to a national recovery strategy under SARA, the preparation of which is being led by Environment Canada. Important actions such as the identification and subsequent protection of critical habitat for southern mountain caribou will occur as part of the SARA process and have bearing on future land use management decisions. Parks Canada's existing caribou research and monitoring programs will provide supporting information to the Whistlers Creek risk assessment.

Successful realization and implementation of ecological outcomes for caribou as set out in the Marmot Basin *Site Guidelines* and SEA will be accomplished in combination with the broader recovery strategy and supporting local strategies and actions by Jasper National Park (SEA, page 66).

Objectives (see SEA, page 65):

The overall purpose of the caribou risk assessment will be to determine whether development in the Tres Hombres and Outer Limits areas can be considered. The *Site Guidelines* and SEA provide that the general objectives and approach to the caribou risk assessment may be refined as needed with the advice of internal and external experts. These draft Terms of Reference will be provided to the researcher recruited for this project for their input, to provide additional input prior to being finalised (see timelines, Appendix 1).

1. Determine, or infer from a literature review, the potential influence of skier and other visitor use on caribou use of habitat in and around the Whistlers Creek drainage.
2. Determine the potential influence of ski area development proposals and egress routes on predation risk to caribou in Whistlers Creek. In addition the effects upon habitat features, predator access, prey density, caribou habitat use will be explored.

3. Identify ecological thresholds and advise Parks Canada, as the responsible authority, on potential effectiveness of mitigation measures and management thresholds that should be considered to address potential impacts identified in the research.
4. Determine the implications of potential development and human use in the Whistlers Creek drainage to regional caribou population viability.

Research Questions

1. How does the Whistlers Creek drainage contribute to local, park and regional caribou population viability?
2. How would the potential future development influence the habitat features, predator access, prey density, caribou habitat use, and local, park and regional population viability?
3. What management actions and mitigation measures would be effective in achieving the desired ecological outcomes of the *Site Guidelines* related to caribou (listed under item 2 in scope of work)?

Scope of Work

1. Parks Canada and Marmot Basin will complete, within 18 to 24 months of its initiation, a mutually agreed on risk assessment, that will:
 - assess the impact of current human activities on caribou in the entire Whistlers drainage
 - summarize current knowledge about caribou in the proposed area using existing data
 - examine the impact on caribou of potential development in the Whistlers Creek area and the effectiveness of potential mitigations to manage human use in this area
 - determine the potential effects of a skiers egress from Tres Hombres to Lower Keifers (as per section 5.4.4.2 of the *Site Guidelines*)
 - identify mitigation measures to ensure that management of current off-piste skiing opportunities (in accordance with Section 5.5.2.3 of the *Site Guidelines*) contributes to achieving the ecological parameters
2. The risk assessment will provide information and advice for achieving the following ecological outcomes related to caribou that are set out in the *Site Guidelines* and SEA:
 - sensitive or valued wildlife is not displaced from habitat essential to regional population sustainability
 - wildlife mortality does not increase, directly or indirectly, as a result of human contact and activity
 - caribou and caribou habitat are protected in accordance with the SARA
 - off-piste and out-of-bounds skiing do not displace caribou from habitat important to the regional population (for these purposes, regional is defined as the year-round range of the Tonquin caribou herd.
 - development does not increase access for predators or the density of prey in important caribou habitat in and near the leasehold.
 - modifications to vegetation and terrain do not affect the availability of caribou lichen outside of the existing Developed Area.

3. Spatial Scale: the caribou risk assessment will address visitor activity in the broader Whistlers Creek valley as a whole, and not just activities on the ski area leasehold (*Site Guidelines*, page 30). It should account for potential effects of development on individual caribou (e.g. displacement) and the population as a whole.
 - On the leasehold, the primary area of focus is identified as the “study area” on maps in the *Site Guidelines*.
 - Results of this assessment will be interpreted with respect to local, park and regional stresses on the caribou population(s) in Jasper National Park.
4. The risk assessment will be led by an objective third party researcher agreed upon by Parks Canada and Marmot Basin.
5. The risk assessment will advise on the need for and potential parameters of any future follow-up monitoring program(s).
6. Parks Canada will provide access to park caribou reports, data, and additionally will provide such scientific and technical support as deemed necessary by the Superintendent.

Project Management and Administration

1. Parks Canada and Marmot Basin will establish a project management agreement (may be a Memorandum of Understanding) that is separate from these terms of reference for the funding and administration of the project.
2. A project steering committee will be comprised of the Park Superintendent and the President and General Manager of Marmot Basin, and their designates. The Steering Committee will ensure that capacity is provided for administrative, scientific/technical, and communications support.
3. A project schedule will be established that outlines progress meetings and reporting.

Administrative Steps:

1. Prepare Terms of Reference (TOR)
 - sets out the research question(s), overall objectives, scope, study area, and process
 - guides the gathering information, analysis of information and development of suggestions on approaches for the managing the area
2. Establish an MOU or similar agreement between PCA and Marmot Basin for funding arrangements, administration, project support and management
3. Engage Independent Researcher
 - determine recruitment process
 - identify candidate(s) mutually acceptable to PCA and Marmot Basin
4. Finalize TOR
 - Researcher will review and provide advice

- the draft TOR will be offered to interested members of the public and Aboriginal groups for review, and may be adjusted in response to feedback
 - a final TOR will be signed off by Parks Canada and Marmot Basin
5. Conduct the Risk Assessment
 - will be completed within 18 to 24 months
 - implement a communication program
 - final products will be a report or reports (and supporting data), providing information, analysis, and suggestions on approaches for the managing the area
 6. Data Management protocols and intellectual property rights will be identified in the final contract as agreed to by all parties. The intent is that data collected and held by the principal researcher(s) will not be released to any third parties without the express approval of Marmot Basin and Parks Canada, or until one year following the submission of the final research report. The data may be used for publication in a peer-reviewed, scientific journal, with advance notice to Parks Canada and Marmot Basin.
 7. Decisions will be made by Parks Canada
 8. Proceed to subsequent steps as set out in the Site Guidelines.

Product(s) and Result:

Parks Canada and Marmot Basin will have jointly funded and completed, within three years of initiation, a risk assessment that examines the impact on caribou of potential development in the Whistlers Creek area and the effectiveness of potential mitigations to manage human use in this area.


Products from the lead researcher will include a final research report with suggested approaches for the managing the area, and supporting documentation and data. Parks Canada will prepare related communications products and a final response document.

Decision-Making Outcomes

The risk assessment information will support final decisions by Parks Canada regarding the potential consideration of lift access in the Outer Limits and Tres Hombres areas, a potential skiers egress from Tres Hombres to Lower Keifers, and the management of other human use including off-piste skiing.

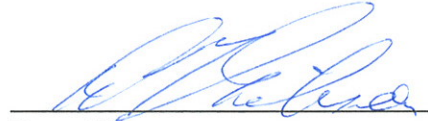
If decisions arising from the risk assessment are favourable, Marmot Basin will be in a position to put forward proposals for consideration as part of a Long-Range Plan and assessment under CEAA and the SARA. If adverse impacts of proposals cannot be effectively mitigated, no developments will be considered.

Draft Terms of Reference Approved for Public Review:



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Date: February 17, 2011

References:

Marmot Basin Ski Area Site Guidelines for Development and Use (February 2008)

Marmot Basin Ski Area Site Guidelines for Development and Use Strategic Environmental Assessment (February 2008).

Appendix: Excerpt from the approved Marmot Basin Ski Area Site Guidelines for Development and Use – describing expectations for the Caribou Risk Assessment

Section 5.5.2.2 (Page 30)

In the long term, Marmot has expressed the desire to provide lift access to the Outer Limits and Tres Hombres areas. However, at this time, Parks Canada is unable to objectively determine, in scientific terms, whether or not potential future development in these areas should be considered because the potential impact of lift development on caribou in these areas is not well understood. In addition, because woodland caribou are listed as 'threatened' by the *Species at Risk Act*, a national strategy for the management of caribou is currently being developed. Based on this strategy, local action plans will be developed where necessary. It is therefore inappropriate to determine how potential changes to Outer Limits and Tres Hombres should be managed in advance of this direction. For these reasons, a multi-year, independently led caribou risk assessment will be undertaken.

Marmot Basin will join Parks Canada in completing, within three years of its initiation, a mutually agreed on risk assessments. It will examine the impact on caribou of potential development in the Whistlers Creek area and the effectiveness of potential mitigations to manage human use in this area. Upon the completion of the risk assessment a final decision regarding the potential consideration of lift access in the Outer Limits and Tres Hombres areas will be made. If adverse impacts cannot be effectively mitigated, no lift access will be considered and the current situation will continue. If the decision is favourable, Marmot Basin will be in a position to put forward proposals for consideration as part of a Long-Range Plan and associated application of CEAA.

The risk assessment will be led by an objective third party and agreed upon by Parks Canada and Marmot Basin. In the event that an agreement cannot be reached, then the process will be determined in accordance with the Alberta Arbitration Act. Terms of reference for the caribou risk assessment will: reflect the intent of the *Species at Risk Act*, these Site Guidelines and the associated Strategic Environmental Assessment; and identify mitigations to ensure that current off-piste skiing, managed in accordance with Section 5.5.2.3, below, contributes to achieving the ecological parameters.