

Core High-Elevation Summer Range for the Graham Caribou Herd

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The Peace Northern Caribou Plan (PNCP) includes a commitment to:

"manage the industrial footprint in identified high and low elevation habitats by requiring standardized industry management practices across all industry sectors to reduce or prohibit surface disturbance and habitat alteration, and support long-term sustainable caribou habitat conditions."

<http://www.env.gov.bc.ca/wld/speciesconservation/nc/>

The purpose of this report is to identify the core high-elevation summer range (HESR) for the Graham caribou herd within the PNCP area. Caribou in this herd use primarily subalpine and alpine habitats in summer. In some places, summer range occurs in areas that are also used as high-elevation winter range (HEWR). However, the HESR includes additional areas that are not heavily used by caribou in the winter period.

Radio-telemetry data from Graham caribou have been used to develop seasonal habitat use models that can be used to identify important habitat areas (Williamson-Ehlers 2012). Three habitat selection classes were used to quantify habitat quality for caribou in summer (High, Moderate, and Low). Habitats identified as being "Highly" and "Moderately" selected by caribou in summer were mapped within the caribou range. Several areas that contained no evidence of use by radio-collared caribou were deleted in the western portion. Those areas appear to be beyond the normal summer range of the herd. We also deleted small patches of habitat that were isolated from the area of core HESR, or classified as "Moderately" selected by caribou and had little or no use by radio-collared caribou.

The final HESR for the Graham caribou herd was delineated into two habitat quality classes. "Highly" selected habitat was classified as "Very High" quality habitat, and "Moderately" selected habitat was classified as "High" quality habitat.

1. There were a total of 30,184 summer telemetry locations for the Graham caribou herd.
2. 511 locations that occurred at low elevations (<1000 m) were deleted, leaving 29,673 high-elevation locations.

3. The final core HESR map (Figure 1) incorporated 90% of the high-elevation caribou locations (Figure 2) in 343,191 hectares. 82% of those locations were in areas considered to be “Very High” quality winter habitat (306,374 ha).

Reference

Williamson-Ehler, E.P. 2012. Seasonal habitat selection for woodland caribou (*Rangifer tarandus caribou*) across the Peace region of northeastern British Columbia. Unpublished report, B.C. Ministry of Environment.

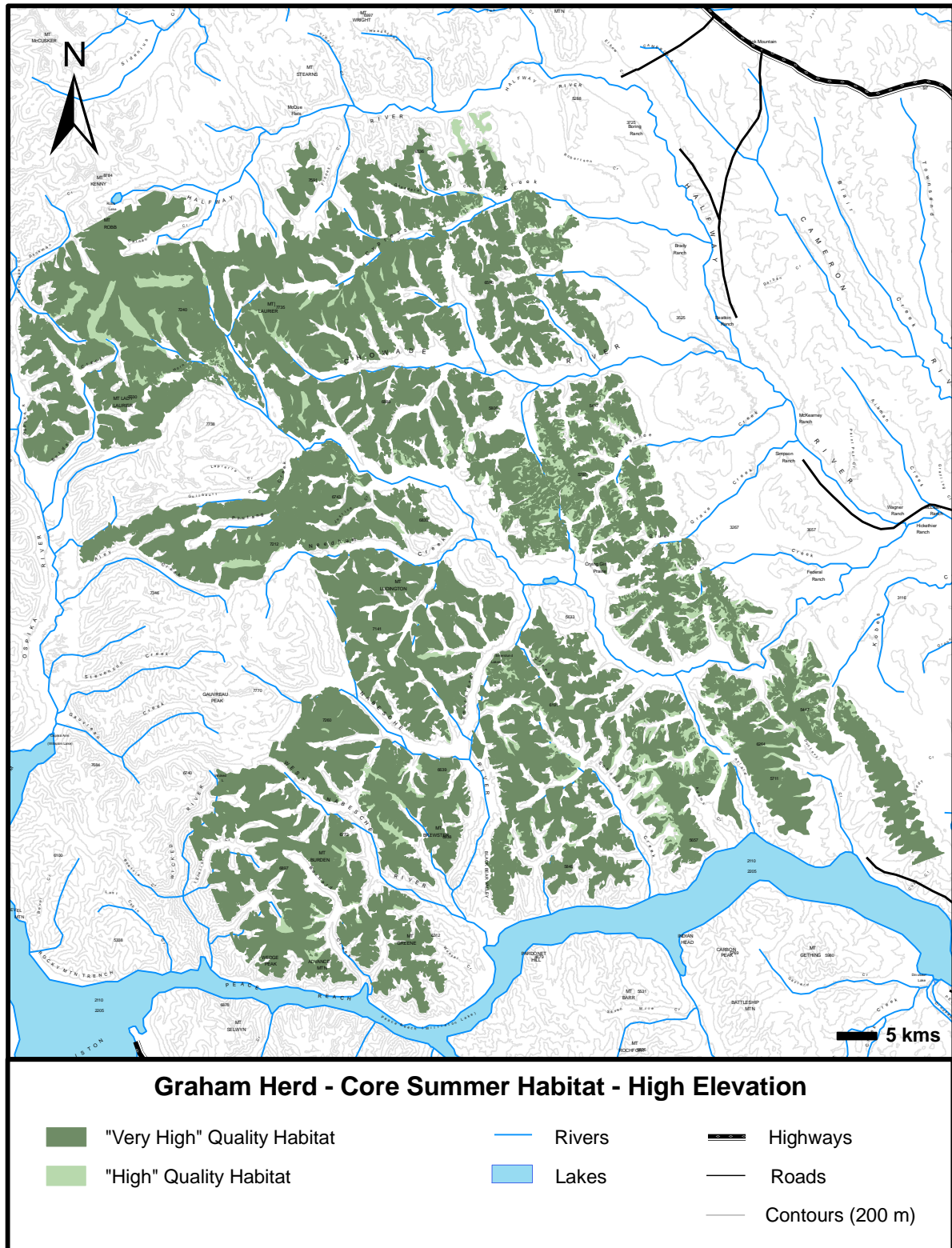


Figure 1. Core high-elevation summer range for the Graham caribou herd.

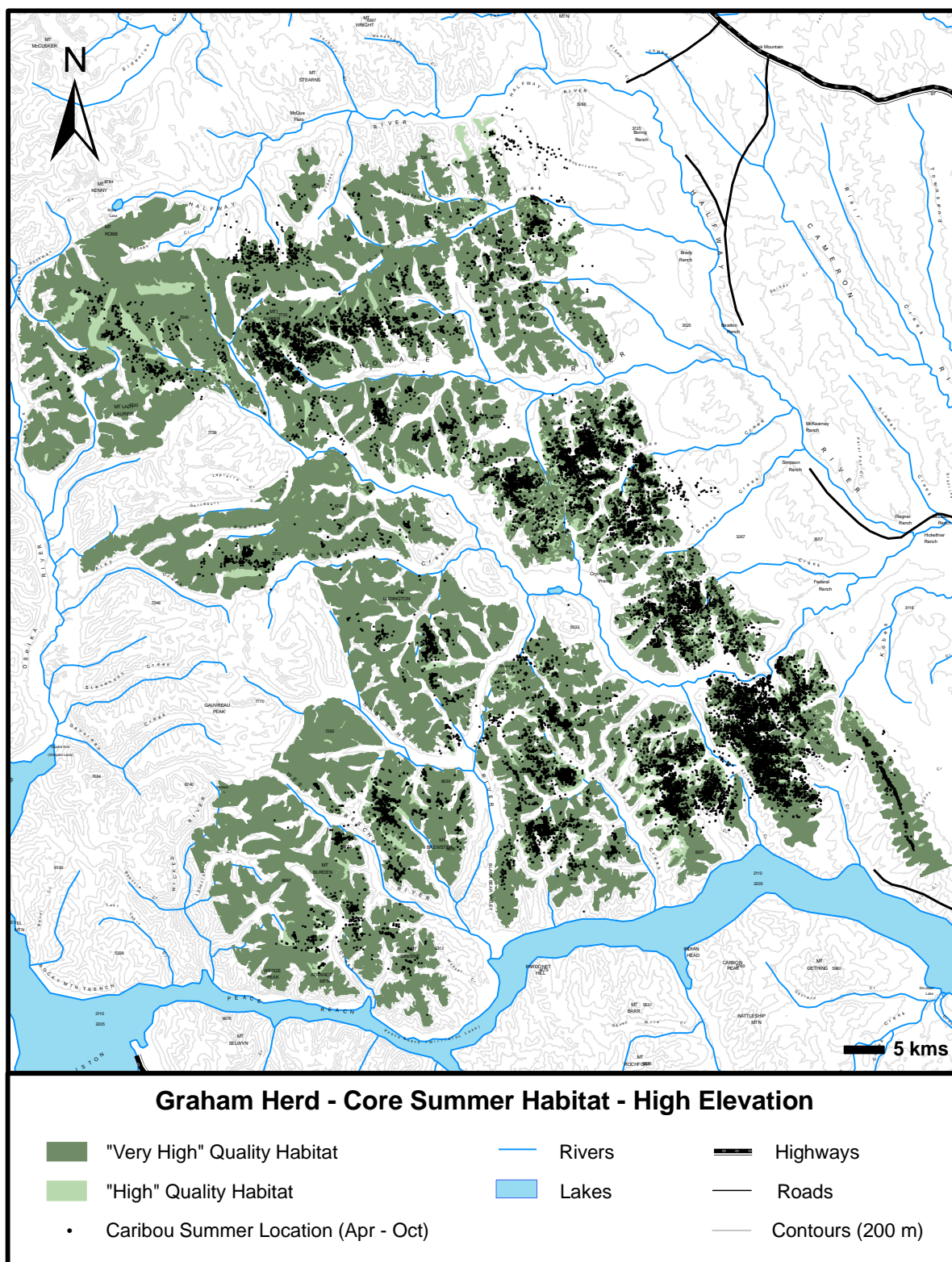


Figure 2. Core high-elevation summer range and summer locations from 2001 to 2009 for the Graham caribou herd.