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From: Wendy Loya
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K5a and c caribou revised 072018.docx

Nicole,

We have quickly done the math with some assumptions from the NPRA development scenarios and the results of Cameron et al. 2005 to try to come up with a reasonable means of minimizing impacts to post-calving habitat while allowing reasonable development if resources are in this area. It is of course difficult if not impossible to know how development will occur, so the goal of leasing stipulations is to make space for the analysis in the future while setting some science-based thresholds.

We did the math on allowing 10% of the entire area to be covered by roads or well pads. That would be .1 x 11.5 townships x 980 Km² = 98 km² of roads. NPRA IAP assumes 7.5 acres per mi road and 10 acres per well pad, so we picked 8.5 acres lost per km², which is inexact. Under that assumption, the total footprint that would be allowed in the post-calving area would be 510 acres, which is almost 25% of the allowable footprint for the 1002 area. If we assume a 3 km displacement of caribou (moderate assumption, 5 km would be conservative) either side of a road per Cameron et al. 1992 and 2005, we would have approximately 22% of the area impacted by roads/wellpads. Of course how it is laid out is important, so that is where planning under Caribou summer habitat comes in.

A reminder about the timing restrictions if that is a concern: the AO can allow for exceptions if caribou presence is low or the total area being disturbed concurrently is small.

We had an error in the description of township 06N031E, it is part of the post-calving not NSO area, so the attached reflects that change.

Thank you,
Wendy

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