WILDLIFE MANAGEMENT ADVISORY COUNCIL (NWT)

October 15th, 2012
Elizabeth Snider, Chairperson
Environmental Impacts Review Board

NEW IRs SUPPLEMENTAL TO THE ITH PUBLIC MEETINGS

1. Cumulative Effects Assessment (CEA)
WMAC is pleased to note that the Developer acknowledges some of the deficiencies associated with its original CEA within the EIS. Changes that have been made include:

- A clear demarcation of the cumulative effects study area as opposed to a general description.
- The inclusion of other past, present, and future linear developments within the cumulative effects study area.
- An increased Zone of Influence (ZOI) of the ITH and these other linear developments from 0 to 1 km.

However, despite these improvements some important deficiencies remain unaddressed, including the inadequate 10-year time frame for the CEA, and its overly simplistic assessment of impact on key wildlife VECs such as caribou and grizzly bear.

To begin with, the original CEA within the EIS did not include the Husky Lakes – an area of immense importance to the Inuvialuit. WMAC notes that the revised CEA study area still only includes part of the Husky Lakes.

Information Request 1: Given their ecological and socio-economic importance, why are the Husky Lakes not included in their entirety within the revised CEA study area?

WMAC has previously highlighted the insufficient temporal boundary for the Developer's CEA within the original EIS. This appears to be unaltered so this remains a deficiency from WMAC's perspective.

Information Request 2: Why is the temporal boundary for the CEA still unchanged at 10 years despite the EIRB's recognition that it should be at least 25 years?

The Joint Secretariat – Inuvialuit Settlement Region
P.O. Box 2120 Inuvik, Northwest Territories, Canada X0E 0T0
Tel: (867) 777-2828 fax: (867) 777-2610 e-mail wmacnwt@jointsec.nt.ca

WMAC took the time and effort to reference a number of published scientific studies to show that the potential ZOI of the ITH was not non-existent for caribou as proposed in the original EIS, but could be as large as 15 km. The Developer has now adopted a ZOI of 1 km using the following logic:

For purposes of this supplemental cumulative effects assessment, as discussed during the Inuvik Hearings, given the generally low physical profile of the proposed Highway on the landscape, the low level of traffic expected to use the Highway (150 – 200 vehicles per day) and with the application of the available mitigation and management measures described in the EIS and updated commitments, a potential 1 km zone of influence, within which potential residual effects to wildlife species may occur, was selected.

The Developer provides no scientific support for the selection of 1 km as the potential ZOI. WMAC continues to believe that this is underestimating the potential ZOI, especially for caribou. The revised ZOI is also at odds with the effects distance selected (ironically 15 km) by the Developer in the Wildlife Effects Monitoring Program (WEMP) as discussed in the next section.

Information Request 3: What is the scientific basis for the selection of 1 km as the potential ZOI for wildlife, especially for large ranging species such as caribou and grizzly bear?

The Developer assesses the impact to key wildlife VECs such as caribou by simply calculating the area occupied by their 1 km ZOI as a proportion of both the CEA study area and the respective caribou herds' winter ranges. Because the percentages are small, the Developer states:

It is therefore concluded that the potential residual effects on caribou related to the Highway, and potential residual effects associated with past, present and potential future projects within a combined zone of influence of 1 km for each of these possible projects will not result in a potentially significant cumulative effect on either the Cape Bathurst or Bluenose-west caribou herds while they are on their winter range, when they are typically present in the greatest numbers within the general area, including the cumulative effects study area.

Notwithstanding WMAC's contention that the 1 km ZOI is both scientifically unsubstantiated and an underestimate (e.g. see the Developer's own reference to the active avoidance and disruption of grizzly bear foraging activities of up to 4 km from human disturbance), this areal approach to impact assessment by itself is overly simplistic. Roads and other linear developments always occupy small percentages of the landscapes in which they occur. However, their ecological effects are amplified orders of magnitude above this simple math by the fact that ecological pressures, either directly or indirectly, are operating along their entire lengths. These pressures take advantage of the linear aspect of roads and similar developments to gain access to previously undisturbed

portions of the landscape. Combined with the very large home and/or herd ranges of some wildlife VECs (e.g. grizzly bear, wolverine, caribou), roads exert ecological influences well beyond their relatively small footprint. Baseline information should therefore always include the movement ecology of these wide-ranging species before and after road construction in order to fully predict impacts. Alas, these data are largely absent from this CEA.

Information Request 4: What is the scientific rationale for concluding that the ITH will have no significant effect on wildlife in the absence of data on the movement ecology of wide-ranging species?

2. Wildlife Effects Monitoring Program (WEMP)

WMAC is also pleased to be finally able to review a draft of the Developer's proposed Wildlife Effects Monitoring Program. According to the Developer, the WEMP is designed to evaluate the effect of the proposed highway on the movement, habitat selection, and direct mortality of barren-ground caribou and barren-ground grizzly bears:

The program will be targeted to the Regional Study Area (RSA) described in the EIS, which is a 15 km wide buffer running along the proposed highway corridor and existing Source 177 access road. Wildlife monitoring is proposed to occur prior to construction, during highway construction, and five years after the highway has been opened for use. This will allow for a clearer understanding of wildlife movement, habitat selection and mortality before, during, and after the highway has been constructed. As a result, the impact of the highway on wildlife can be assessed and any mitigation actions can be tested and revised, if necessary.

WMAC finds it puzzling that the Developer continues to reject a maximum ZOI of 15 km for caribou in the CEA yet embraces an identical effects distance within the WEMP. Effects monitoring should flow directly from the CEA so it makes even more sense for the Developer to adopt a potential ZOI of 15 km for caribou.

Information Request 5: Why are the potential ZOI for caribou in the CEA and the effects distance for the WEMP not the same?

As stated by the Developer above, wildlife monitoring is supposed to begin prior to road construction. However, construction is proposed to begin this winter, i.e. 2012/2013. As the Developer admits:

There is some baseline wildlife information available in and around the area of the proposed highway. Most of the information that does exist is from collared caribou in the Cape Bathurst and Tuktoyaktuk Peninsula herds, but these collaring programs were designed for previous population surveys and not for the collection of the type of detailed information that is necessary to evaluate highway impacts on winter caribou habitat selection and movement. Similarly, there is some information on grizzly bear distribution in the Regional Study Area (RSA), but not at a fine enough scale to accurately determine

the impact of the highway on bears. Other wildlife information in this area is sparse as there were few wildlife concerns prior to the proposal of the all season highway.

So the Developer is concluding that there is no existing information with which to evaluate the effects of the road upon the wildlife of the area. This is particularly disturbing from a caribou perspective, particularly from WMAC's Worst Case Scenario point of view – the loss of caribou harvest for an extended period of time.

Information Request 6: Why wasn't appropriate baseline information on wildlife collected prior to road construction beginning? On what scientific basis was the previously collected data on radio-collared caribou rejected as a source of potential baseline information for evaluating the effects of the ITH? How many animals in each herd were fitted with such collars? What other existing baseline information on wildlife was examined and rejected?

The Developer goes on to state:

ENR deployed a number of GPS collars on caribou in the Cape Bathurst and Tuktoyaktuk Peninsula herds in March 2012. Collars were deployed to start the baseline collection of information for the WEMP and as part of the preparation for the July 2012 post-calving ground surveys for both herds.

A total of forty-six GPS/satellite collars were placed on caribou from the Cape Bathurst and Tuktoyaktuk Peninsula herds in March 2012. These collars provide three locations daily. Ten of the deployed collars were equipped with a geofence, allowing more data to be collected if the caribou move into the area of the proposed road (one location every hour). Additional collars will be deployed in March 2013, and as necessary additional collars will be purchased and deployed in March 2014, March 2017, and March 2020 in order to maintain thirty collars/herd for both herds.

Information Request 7: On what scientific basis were the sample sizes of 46, 10, and 30 collared caribou determined? Are these numbers large enough to detect an effect of the road should it occur? Has a statistical power analysis been conducted? Why have caribou from the Bluenose-West herd been omitted from the WEMP when they clearly used the area before their population declined?

Unlike some caribou, no grizzly bears have been fitted with GPS/satellite collars prior to the construction of the road:

A total of fifteen GPS/satellite collars will be deployed on grizzly bears in or near the RSA in May 2013. These collars will be programmed to provide six locations a day in the active period and one location daily during hibernation. Depending on the performance of the caribou collars, grizzly collars may be equipped with a geofence that allows more data to be collected if the bears move into the area of the proposed highway (one location

every hour). Additional collars will be deployed to keep the number of bears collared around fifteen, likely in May 2015, May 2017, and May 2019.

Information Request 8: How does the Developer reconcile the fact that the WEMP will likely fail to detect an effect of the road on grizzly bears because the collars will be fitted too late?

Information Request 9: On what scientific basis was the sample size of 15 collared grizzly bears determined? Is this number large enough to detect an effect of the road should it occur? Has a statistical power analysis been conducted?

Two other important wildlife species, the wolverine and the wolf, are included within the WEMP. As with the grizzly bear, the program will not begin monitoring these species before road construction has already begun (i.e. 2013).

Information Request 10: How does the Developer reconcile the fact that the WEMP will likely fail to detect an effect of the road on wolverines and wolves because their effects monitoring will begin too late?

WMAC's final concern lies in the rather short 5-year timeline associated with the WEMP. Some of the effects of the new road may take longer to manifest themselves in the populations of wildlife in the area. For this reason, WMAC believes that WEMP should be at least 10 years in length.

Information Request 11: How was the timeline for WEMP fixed at 5 years? Was the timeline influenced by the short temporal boundary for the CEA?

Despite the various shortcomings of the Developer's CEA and WEMP, WMAC believes that there may still be an opportunity to improve the quality and effectiveness of both of these project elements through the greater utilization of already existing wildlife data in conjunction with dedicated and determined efforts to collect meaningful effects data in the future.

Information Request 12: How does the developer plan to gather monitoring data for caribou if the number of allowable collars are reduced?

Many aboriginal groups are becoming increasingly concerned about the use of radio collars as a means of gathering data for caribou. Collaring can have a deleterious affect on caribou, and as such, the reduction in its use is a possibility. How does the developer plan to gather monitoring data with a reduction in sampling sizes?

Larry Carpenter, Chair

The Joint Secretariat – Inuvialuit Settlement Region
P.O. Box 2120 Inuvik, Northwest Territories, Canada X0E 0T0
Tel: (867) 777-2828 fax: (867) 777-2610 e-mail wmacnwt@jointsec.nt.ca