ENVIRONMENTAL IMPACT REVIEW BOARD

March 8, 2012

Mr. Ray Case
Assistant Deputy Minister
Department of Environment and Natural Resources
Corporate and Strategic Planning
Government of the Northwest Territories
P.O. Box 1320
600, 5102 - 50th Ave.
Yellowknife, NWT X1A 2L9
Building SCO-6

Dear Mr. Case,

Re: Information Requests issued related to the Proposed Inuvik to Tuktoyaktuk Highway Project

Please find attached Information Requests (IRs) that have been directed to the Department of Environment and Natural Resources from the Environmental Impact Review Board seeking information related to the proposed Inuvik to Tuktoyaktuk Highway project. These IRs have been generated as part of the environmental impact review of the proposed development being undertaken by the Environmental Impact Review Board (EIRB) to fulfill the requirements of the Inuvialuit Final Agreement and the *Canadian Environmental Assessment Act*.

Please complete a separate response to each IR, and clearly reference the IR number, topic and the Party that generated the IR (i.e., the source). Please complete your responses and submit them to the EIRB by March 30, 2012.

Please contact me if you have any questions or concerns regarding this letter.

Sincerely,

Eli Nasogaluak
EIR Coordinator
Environmental Impact Review Board
Phone: (867) 777-2828 Fax: (867) 777-2610
eirb@jointsec.nt.ca

c.c Marsha Branigan, Manager, Wildlife Management, Inuvik Region

INFORMATION REQUESTS
(Round 2)

DATE OF RELEASE: March 8, 2012

DISTRIBUTION: ENR - Wildlife, GNWT and the Electronic On-line Registry (EOR).

PURPOSE: Information Requests (IRs) issued by the EIRB and Parties to the Department of Environment and Natural Resources, GNWT related to the Review of the proposed Inuvik to Tuktoyaktuk Highway Project.

DEADLINE FOR SUBMISSION OF RESPONSES: March 30, 2012

Information Request (IR) Numbers: 72, 73, 74, 75, 76, 77, 78, 80

IR Number: *Number is assigned by EIRB* 72

Source: EIRB

To: GNWT – ENR

Subject: Valued Ecosystem Component (VEC) process (EIS Sections 4.1, 4.1.2)

Preamble

No baseline ~~wildlife surveys~~ were conducted for the wildlife VCs in support of the project EIS. Regulatory agencies have expectations in terms of the methods and approaches taken in linear developments in the NWT. These expectations are in accordance with CEAA operational policies for follow-up and adaptive management (CEAA 2009 and 2010). For example, the GNWT had several overarching concerns with the Biophysical Impact Assessment Methodology, including the selection of VCs (see GNWT General Submission MGP Section 4.1, p. 9).

Request

1. Please list ENR expectations surrounding wildlife baseline data in the LSA.
2. Please elaborate and explain what ENR will require, with respect to wildlife baseline information, using scientifically defensible rationale, so that the baseline can later be compared to follow-up results.

3.2 Biophysical and Human Impact Assessment

IR Number: *Number is assigned by EIRB*

73

Source: EIRB

To: GNWT – ENR

Subject: Caribou habitat fragmentation (EIS Section 3.1.9.5 p. 218, Section 4.2.7.2, p. 520, Table 4.2.7-3; IR Responses Round 1, IR #29)

Preamble

As stated in the Developer's response to IR #29, the proposed Highway alignment is located south of the traditional summer and fall caribou harvesting areas, but within the spring and winter caribou harvesting areas. As well, the alignment occurs within the Bluenose-west winter range management area. This area provides important winter habitat for the Bluenose-West caribou herd, which is valued for subsistence harvesting year-round by Inuvialuit communities.

The Developer has acknowledged that caribou habitat could be lost, fragmented, or degraded as a result of the proposed development. However, the Developer does not appear to have carried out any type of habitat fragmentation analysis as part of the assessment of impacts to caribou. No rationale is provided for this apparent omission, despite acknowledging that habitat fragmentation, as a result of the proposed development, could impact caribou. As a result, the Developer's residual effects assessment for caribou and caribou habitat in the RSA may be underestimating the potential impacts to caribou. When asked to explain why habitat fragmentation analysis was not carried out in the EIS the Developer implies that it was not necessary to do so because, to date, no habitat fragmentation analysis for barren-ground caribou has been completed for all-weather road projects within tundra ecosystems of the Canadian Arctic. The Developer also states that:

Most of the evidence to date suggests that caribou will cross the Tuktoyaktuk-Inuvik road but their behaviour may be affected by it. ENR is undertaking a caribou collaring program designed to look at impacts to Cape Bathurst and Tuktoyaktuk Peninsula caribou movement and habitat use in relation to the road as part of the Wildlife Effects Monitoring Program being developed by DOT and ENR. This will provide a basis for further evaluating fragmentation effects.

In summary, the results of the fragmentation analyses conducted at existing and proposed mines in the NWT as well as the evidence surrounding the potential barrier effect of the road suggest that habitat fragmentation analysis of the ITH [Inuvik-Tuktoyaktuk Highway] Project would not contribute meaningfully to the assessment of impact to barren-ground caribou within the study area (IR #29 Response, p. 2).

The Developer has not provided sufficient information in response to the IR (no fragmentation analysis was done). The "evidence" provided is not substantiated in any quantitative way by, for example, crossing rates and locations. The Developer claims that ENR will provide data that can be used to evaluate potential effects to caribou from habitat fragmentation in the context of the proposed project.

Although ENR and DOT may be currently undertaking a caribou collaring program, it is not clear how the results will shape the construction decisions to be made concerning the project.

The GNWT has stated in the past that *"industry, regulatory agencies, and other environmental review agencies will need to work with the GNWT and others to ensure human impacts on caribou herds and their ranges are appropriately monitored and mitigated."* (GNWT 2006b). The Developer cited studies that appear to show that caribou are not impacted by roads. This assertion needs to be substantiated in light of ENR's findings that the Dempster highway results in a 6 km zone of avoidance by caribou.

Request

1. Please explain if, in the cited studies, road structure (width, height, general configuration, etc) and mitigation of impacts to caribou was similar to that of the proposed Inuvik-Tuktoyaktuk Highway.
2. Please clarify why the ITH Project would not affect caribou, while the Dempster highway appears to have an effect.
3. Please identify when the results of the aforementioned caribou collaring program designed to look at impacts to Cape Bathurst and Tuktoyaktuk Peninsula caribou movement and habitat use in relation to the road as part of the Wildlife Effects Monitoring Program will be released to the Board.
4. Please explain how such information will be integrated into the follow-up programs so that the Board can make an informed decision regarding the potential impacts to caribou.
5. Will ENR require the Developer to develop a species-specific wildlife management and monitoring program for barren-ground caribou in consultation with ENR, prior to construction?

IR Number: *Number is assigned by EIRB*

Source: EIRB

To: GNWT - ENR

74

Subject: Caribou habitat loss (~~EIS~~ Section 4.2.7.2, p. 520; IR Responses Round 1, IR #33)

Preamble

When asked to provide and justify estimates of habitat loss in the LSA for caribou and incorporate an appropriate ZOI into the coarse calculations of habitat loss, the Developer, in part, stated:

A zone of influence could be suggested based on Cameron et al. (2005) of 2 km on either side of the 137 km road, which would amount to 548 km2, or a larger one of 4 km on either side of the 137 km road, which would amount to 1,096 km2, based on Cameron et al. (2005) and Nellemann et al. (2003). However, this would need to be understood as a zone of influence within which caribou behaviour might be affected, but the expectation would be that caribou would cross the road and would likely do so regularly, except if road traffic was very heavy (IR #33 Response, p. 4).

As is, this argument requires additional explanation.

Request

1. Please explain and provide scientifically defensible rationale in support of the Developer's expectation that caribou will not be affected in their regional movements except if road traffic is heavy.
2. Please present a management plan that would alleviate impacts from heavy road traffic on caribou movements.

IR Number: *Number is assigned by EIRB*

75

Source: EIRB

To: GNWT - ENR

Subject: Grizzly bear habitat loss (EIS Section 4.2.7.3, p. 529; IR Responses Round 1, IR #35)

Preamble

When asked to provide and justify estimates of habitat loss in the LSA for grizzly bear and incorporate an appropriate ZOI into the coarse calculations of habitat loss, the Developer, in part, stated:

Based on these studies, a zone of influence (ZOI) of 500 m or 1 km on either side of the 137 km ITH road could be suggested, which would amount to 13,700 ha or 27,400 km2 [the unit should be ha in the original]– *this is 100% or 200% of the LSA. A behavioural response at 1.5 km (3 km corridor), would increase the potential ZOI to 41,100 hectares. Although this is likely a ZOI within which grizzly bear behaviour might be affected, the expectation is grizzly bears would learn to cross the road and would likely do so regularly, except if road traffic was very heavy* (IR #35.1 Response, p. 9).

Regarding monitoring, the Developer states the following:
ENR is collaborating with the Developer to develop a Wildlife Effects Monitoring Plan that will include a project to try to use the baseline data collected by Edwards (2009) and the deployment of additional collars in the right-of-way prior to construction to look at avoidance of the area during the construction and operation phases of the Highway (IR Responses, # 35.1, p. 10).

Given the supposed need of the Developer to begin project construction as soon as possible, the status of this project, and its underlying goals and objectives based on testable questions, should be provided to the Board.

Request

1. Please explain and provide a scientifically defensible rationale in support of the Developer's expectation that grizzly bear will not be affected in their regional movements except if road traffic is heavy.
2. Please present a management plan that would alleviate impacts from heavy road traffic on grizzly bear movements.
3. Please provide a status update of the above mentioned grizzly bear project. Please explain when and how the results of the above grizzly bear project will be made available for the EIRB to consider as part of this review.

IR Number: *Number is assigned by EIRB*

Source: EIRB.

To: GNWT – ENR

76

Subject: Grizzly bear habitat fragmentation (EIS Section 3.1.9.12, p. 259; IR Responses Round 1, IR #37)

Preamble

As briefly discussed by the Developer, habitat fragmentation may or may not be an issue for wildlife species (such as Grizzly bear). The Developer states: "Historic human-caused disturbances to vegetation in the Regional Study Area were limited to small sites or resulted in minimal impacts. The level of fragmentation and connectivity are considered to be insignificant" (EIS Section 3.1.9.12, p. 259). No scientifically-defensible rationale has been provided to support this claim and it does not appear that any type of habitat fragmentation analysis was completed as part of the assessment of impacts to grizzly bear. As a result, the Developer's residual effects assessment for grizzly bear and grizzly bear habitat in the RSA may be underestimating (qualitatively) the potential Development impacts to grizzly bear.

In response, the Developer states:
Grizzly bear habitat could be considered fragmented if bears were to avoid crossing the proposed Highway. The Developer predicts that the proposed Highway will not block grizzly bear movement. As there are no other studies of the effect of habitat fragmentation on grizzly bears in Arctic environments; ENR is collaborating with the Developer to develop a Wildlife Effects Monitoring Program that will outline a program to monitor grizzly bear movements and habitat use relative to the Highway during the pre-construction, construction and operation phases that will provide additional data on potential behavioural changes in grizzly bears (IR Responses, #37.1, p. 15).

Given that there appears to be no baseline data surrounding grizzly bear movements through the project LSA (none was presented in the EIS) it is not clear how any such program, as outlined above, could evaluate the potential impacts to grizzly bear movements and habitat fragmentation.

Request

1. Please provide a status update of the above mentioned grizzly bear project. Please explain when and how the results of the above grizzly bear project will be made available for the EIRB to consider as part of this Review.

3.3 Cumulative Effects

IR Number: *Number is assigned by EIRB*

77

Source: EIRB

To: Wildlife Management Advisory Council (WMAC)
FJMC
GNWT ENR
DFO
Environment Canada

Subject: Cumulative effects assessment - induced effects and increased access (EIS Section 5.3.1.2, p. 631; IR Responses Round 1, IR #51)

Preamble
The Developer acknowledges that it anticipates the completed Highway will make it easier for people to access the land for their various traditional, recreational and cultural pursuits. The Developer points out that to ensure that the environment of the area remains protected, it will be important for the users of the Highway to abide by any "management restrictions" that may need to be developed for the Highway by the resource management agencies and co-management bodies in consultation with the HTCs and other interested stakeholders. The Developer has not defined what those anticipated "management restrictions" might be in the EIS. It is not clear how these potential induced environmental impacts through increased access (i.e., increased harvesting of wildlife, potential damage to vegetation, increased random camping, etc.) were quantitatively factored into the cumulative effects assessment.

Request
1. Please describe and explain the anticipated "management restrictions" that may need to be developed for the Highway.
2. Please indicate when "management restrictions" will be developed, whether they will be in place prior to Highway completion and who will be responsible for implementation and enforcement.
3. Please explain and justify how "management restrictions" will be evaluated in terms of their relative success at minimizing or eliminating environmental impacts.

IR Number: *Number is assigned by EIRB*

Source: EIRB

78

To: GNWT – ENR
Environment Canada
AANDC

Subject: Cumulative Effects Management – Regional Initiatives (EIS Section 5.4.1 p. 643 and Table 5.4.1-1, p. 644 and IR Responses Round 1, IR #53.1 and #53.2, p. 130)

Preamble
When asked in IR #53.1 to explain how the Developer's participation in regional initiatives will assist in the management of cumulative effects for the development, the Developer responded.

The GNWT Department of Transportation acknowledges that its departmental role in regional cumulative management is limited to its departmental mandate. The Developer is directly responsible for constructing public highways and maintaining these highways after completion. The department does engage with other agencies in research activities [for example, the effect of highways on permafrost] or vice versa that relate to management of these public assets. For this project, the role of the Developer will be to engage with other GNWT departments with mandates for effects management as requested. At this time, the Developer is committed to providing information collected in the planning and operations phases of this project to those departments or agencies or other developers that will aid them in their management activities (IR Responses, #53.1, p. 130).

Request
1. Please explain how AANDC, ENR and Environment Canada will engage the Developer with respect to cumulative effects management in the context of the proposed project.
2. Please provide examples of tangible results from other developments for cumulative effects regional initiatives in the ISR and/or the Northwest Territories.

3.4 Follow-up and Monitoring

IR Number: *Number is assigned by EIRB*

80

Source: EIRB

To: WMAC
FJMC
GNWT ENR
DFO
Environment Canada

Subject: Environmental Management Plans and Effects Monitoring (IR Responses Round 1, IR #11, 16, 55, 61, 62, 63 and 66)

Preamble
In the response to IR #55, the developer presents its commitments (Table F) to a number of mitigation measures. However, the Developer does not respond to the question about how the mitigation would address the potential effects of the ITH. Only at the end of the Table F the Developer briefly refers to an "effects monitoring table". However, it is unclear how such a table would satisfy the requirement for the testing of impact predictions, developing significance thresholds, and determining adaptive measures. As per the Canadian Environmental Assessment Agency's (CEAA 2009) *Operational Policy Statement, Adaptive Management Measures* under the *Canadian Environmental Assessment Act*, it is imperative to understand how and when, in relation to the construction schedule, effects monitoring programs will be developed.

Under the Operational Policy of CEAA, ***compliance monitoring on its own does not satisfy the requirements for a follow-up program.*** Compliance monitoring also does not adhere to the GNWT's (2006a) position statement which requires that *monitoring and reporting programs* need to be *designed to test impact predictions.* Moreover, the CEAA operational policy states: ***"If project implementation is likely to begin shortly after approval, the follow-up program should be fully designed and a reliable baseline established during the environmental assessment phase of the project."***

The Developer's response to IRs 11, 16, 61, 62, 63 and 66 are similarly deficient in clarifying how adaptive management measures will be developed in light of CEAA's policy.

Request
For each resource and regulatory agency, please clarify your agency's role in developing an effects monitoring and an adaptive management program. Please identify:

1. Which programs you anticipate to review and approve as part of your agency's mandate.
2. What regulatory tools are available to your agency, to ensure that both compliance and effects monitoring would be in place to ensure that the effects on any given valued component will be at or below the effects predicted in the EIS.
3. How your agency would ensure that the above programs would be designed and implemented prior to construction.