

IR 2.10 B C AND D

To: Imperial Oil / Government of the Northwest Territories

Reference: DAR Section 5.1, Primary Access / Review Board IR 1.4C

Preamble: Imperial identifies 3 public roads as primary access routes for this project: the Mackenzie Highway, the Mackenzie Highway winter road north of Wrigley and the Trout Lake Winter Road.

Imperial states that the primary access winter roads (Mackenzie Highway north of Wrigley and the Trout Lake Winter Road) “will likely require additional maintenance as a result of increased vehicle and equipment costs.”

In its response to Review Board IR 1.4C, Imperial says that reduced speed limit signs will be posted along the Mackenzie Highway in the vicinity of the camp and the community of Wrigley. However, Imperial Oil does not explain under what authority it will be changing the speed limit on a public road.

The Mackenzie Highway and the two winter roads are constructed and maintained by the GNWT’s Department of Transportation.

Request: Please provide the following information.

B) Describe the upgrades and maintenance expected for each of these 3 access routes, including associated costs, due to this project. Please discuss how the forest fire this summer could impact the construction and maintenance of the Trout Lake Winter Road. Also, please discuss how increased construction and maintenance costs will impact the Samba K’e Development Corporation given that it has a fixed value contract with the GNWT for the construction and maintenance of the Trout lake Winter Road. (Imperial / GNWT)

GNWT Response: The GNWT Department of Transportation is not proposing any upgrades to the three (3) access routes that will be used for this project. Maintenance costs to the Department of Transportation are not expected to rise as a result of traffic related to this project.

Maintenance costs to the Samba K’e Development Corporation are not expected to rise as a result of the forest fire in 2004.

Independent of this project, the Department is undertaking construction of winter road bridges and grade improvements on the Mackenzie Valley Winter Road. The Winter Road Bridges program was started in 2003-4 and is scheduled to be completed in 2008-9.

C) Identify any unrecoverable costs (including construction, operation,

maintenance and closure costs) to the GNWT as a result of the increased use and maintenance of each of these 3 roads. (GNWT)

GNWT Response: Unrecoverable costs to the GNWT as a result of the Imperial Deh Cho Geotechnical Program's use of the primary access roads are expected to be negligible.

D) Explain under what authority the speed limits on the Mackenzie Highway will be changed near the Wrigley camp. (Imperial / GNWT)

GNWT Response: Winter roads have a maximum speed limit of 90 km/h as provided by the NWT Motor Vehicles Act (Sec. 169). The Department of Transportation is currently assessing traffic management options for winter roads.

IR 2.13 A AND B

To: Government of the Northwest Territories

Reference: DAR Section 5.1, Access

Preamble: Imperial identifies 3 public roads as primary access routes for this project: the Mackenzie Highway, the Mackenzie Highway Winter Road north of Wrigley and the Trout Lake Winter Road.

Request: Please provide the following information.

A) *Excluding this project, please provide data on the expected traffic volumes on the following portions of the public highway system between December 2004 and April 2005:*

- ? *Mackenzie Highway from the Alberta border to the Highway #3 turn-off;*
- ? *Mackenzie Highway from the Highway #3 turn-off to Fort Simpson;*
- ? *Mackenzie Highway from Fort Simpson to Wrigley;*
- ? *Mackenzie Highway Winter Road from Wrigley to the Dechcho border; and*
- ? *The Trout Lake Winter Road.*

Differentiate between passenger vehicles (such as cars, SUVs, vans, pick-ups) and larger vehicles (flatbeds, tractor trailers, fuel delivery, etc.).

GNWT Response: Excluding this project, traffic volumes on the referenced portions of the public highway system are expected to be as follows for the period December 2004 and April 2005:

- ? 250-270 per day (AADT or Average Annual Daily Total) on the Mackenzie Highway from the Alberta border to the Highway #3 turn-off;
- ? 60 per day (AADT) on the Mackenzie Highway from the Highway #3 turn-off to Fort Simpson;
- ? 50 per day (AADT) on the Mackenzie Highway from Fort Simpson to Wrigley;
- ? Estimates for the winter roads are usually developed after meetings with Industry on expected activity. These meetings have yet to be held.

The Department of Transportation has no current vehicle classification data for these access routes. The Department typically uses data from the Enterprise Weigh Scale to develop estimates of truck volumes and types on the highway system.

B) *Describe the predicted variations in traffic volume over time from December 2004 to April 2005.*

GNWT Response: Traffic is expected to be heaviest at the beginning of the winter road season which, on these winter roads, is expected around January 10, 2005, and again at the end of the season, mid March 2005.

IR 2.14 A AND B

To: Environment Canada / Government of the Northwest Territories

Reference: DAR Section 5.1, Access

Preamble: Imperial Oil has identified wildlife mortality due to wildlife-vehicle collisions as being a potential impact of this project.

The deer whistle is intended as an alarm device, designed to get the attention of the deer without causing flight. They are designed to be effective at distances from 100 m to 2 km away from the vehicle.

Request: Please provide the following information.

A) Please provide some analysis on the potential effectiveness of deer whistles, and other alternative alert devices, to minimize the potential of wildlife-vehicle collisions for this project.

GNWT Response: Regarding **deer whistles**, we understand that studies in other jurisdictions, including the USA, have not produced sufficient data to determine if these devices are effective in preventing wildlife-vehicle-collisions (WVC). Whistles can only be effective if their frequency is within the auditory sensitivity of the animal in question. Different whistles will have different frequencies and therefore different effects on the general wildlife population. In addition, whistles may be difficult to hear over noise levels produced by vehicles. Some researchers feel that whistles produce an unwarranted sense of security for motorists.

Alternatives:

Roadway lighting and fencing have been effective in reducing WVCs; however, the benefits realized do not outweigh the prohibitively high cost of these installations.

Speed reduction can be quite effective in reducing WVCs, although surveillance and enforcement programs are needed to ensure that motorists stay within designated limits.

Intercept feeding, whereby feeding areas are created off the ROW, is effective in keeping many animals off the roadside. However, these placements must be created a good distance from the roadway, since they also serve to attract animals.

Repellents, such as Big Game Repellent and wolf odour have been shown to have positive effects in reducing WVCs. However, these repellents may not work under snow cover.

Driver awareness programs, involving warning signage, information handouts, and advertising, have proven to be the most effective means for alerting drivers to hazards, and in reducing WVCs.

B) *Please comment on the trade-off between creating additional project noise versus the potential value of using such alert devices.*

GNWT Response: To date, GNWT Department of Transportation has no experience with deer whistles, although our research on bison management along our Right-of-Ways (ROW) has led us to the following conclusion.

Driver safety and reduced WVCs being primary concerns, if whistles were shown to be effective in dissuading wildlife from venturing onto roadways, benefits realized through their usage would certainly outweigh increased noise levels along the ROW.

IR 2.18 C

To: Government of the Northwest Territories

Reference: DAR Section 9.1, Economic Impacts and Mitigation

Preamble: Imperial Oil states that local airstrips will be used during the program.

Request: Please provide the following information.

C) Identify any unrecoverable costs to the GNWT as a result of this project's use of public airports. (GNWT)

GNWT Response: Unrecoverable costs to the GNWT as a result of the Imperial Deh Cho Geotechnical Program's use of public airports are expected to be negligible.