

# **Jumbo Glacier Resort Master Plan**

## **Appendix 3-I**

Response to Michael Proctor (2001)

Prepared by  
ENKON Environmental Limited

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November 15, 2001

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Attention: Ray Crook  
Project Assessment Director-Destination Resorts & Section 4

**RE: JUMBO GLACIER RESORT DEVELOPMENT**

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Dear Ray:

Further to Michael Proctor's letter dated October 2001, ENKON Environmental Limited would like to specifically comment on his hypothesis of connectivity and population fragmentation as it relates to the Jumbo Glacier Resort Development.

1. Mr. Proctor states:

- a) *There is a potential for the resort and associated transportation corridor to fragment the central Purcell grizzly bear population;*

This conclusion is based on his unpublished research that some grizzly bear populations are isolated, or movements of female and male bears is being restricted/reduced due to Highways 3 and 3A. The comparison of Highways 3 and 3A to the Jumbo Glacier access road is misleading and an unfair comparison, as both highways have significantly higher traffic volumes and design/posted speeds compared to the Jumbo Glacier Resort access road. In addition, these results contradict grizzly bear research conducted by Gibeau (2000) in the Bow Valley.

For example, based on Southeast British Columbia (MOTH 1994) summer average daily traffic counts (SADT), Highway 3A near Balfour averages approximately 3,405 vehicles per day while Highway 3 between Crowsnest Pass and Yahk averages 4,250 vehicles per day. In comparison, the projected Phase 2 (20 year period) summer\* average daily traffic (SADT) volumes for Jumbo Glacier Resort are estimated at <1,400 vehicles per day along the access road (McElhanney 1995). In addition, both Highway 3 and 3A have design speeds of

\*Summer average daily traffic volumes used as compared to winter average daily traffic volumes as grizzly bears are hibernating during the winter.

80 km per hour and posted speeds of 100 km per hour, compared to 50-80 km design/posted speeds for Jumbo Glacier Resort access road.

As previously stated by ENKON, based on an extensive review of the research literature, high volumes of traffic combined with fences can severely disrupt movements by adult female grizzly bears and to a lesser extent male grizzly bear movements. Gibeau (2000) concluded that the Trans Canada Highway (TCH) through the Bow Valley, with summer traffic volumes of 21,000 vehicles per day formed a home range boundary for six (6) female grizzly bears. However, both the Bow Valley Parkway and Highway 40 with summer traffic volumes of 2,230 and 3,075 vehicles per day, respectively did not appear to restrict the home range of female grizzly bears. All three highways had observed traffic speeds ranging from 80-115 km per hour.

In conclusion, based on Gibeau's results, the projected summer traffic volumes combined with the relatively low design speeds along the Jumbo Glacier access road should not significantly disrupt grizzly bear movements.

ENKON also concluded that since high traffic volumes combined with fencing has been documented to disrupt grizzly bear movements (Gibeau 2000), and traffic volumes projected for the resort access road are relatively low, ENKON recommends that fencing should not be constructed for Phase 1 or Phase 2. Upon the initiation of Phase 3, the need for fencing should be re-evaluated to ensure that the trade off between grizzly bear movements and vehicle caused mortality is balanced.

- b) *The access road from the east Kootenays through Toby Creek may have the ability to fragment the female cohort in a north-south direction in the East Kootenay side of the Purcells;*

Review of the Grizzly Bear Connectivity Corridor maps for Invermere and Kootenay Lake Resource Management Zones (RMZ) shown in the Kootenay/Boundary Land Use Plan–Higher Level Plan report, indicates that there is an east-west corridor stretching from east of the Columbia River, through the Purcell Wilderness Conservancy and west beyond Kootenay Lake (see attached maps). The map also depicts a north-south connectivity corridor along the Columbia River. There is no mention of Toby Creek as a north-south or east-west connectivity corridor for grizzly bears.

- c) *While the access road from the west through Glacier Creek is not part of the immediate plan, to the extent that it is potential to become a reality in the long run, it would threaten female connectivity to the north and south across the whole Purcell range.*

The proponent has consistently stated that he does not support the Ministry of Transportation and Highways (preliminary study in 1994) possible highway route linking the East and West Kootenays via Jumbo Pass.

As stated in the Final Project Report Specifications (1998), the project committee recognized that the Jumbo Pass Highway project, if it were ever built, would increase the accessibility of the local area, including access to the Jumbo Glacier resort. However, it considers this proposal to be hypothetical, and in any case, beyond the scope of the present EA review of the resort project, since the concept does not form any part of the proponent's development proposals, and would be a development project sponsored by government.

In addition, the project committee noted that:

- MoTH has no intention of proceeding with the Jumbo Pass Highway project for the foreseeable future;
- Government (rather than a non-governmental interest) would have complete control of any decision on the development of such a route;
- The proponent should not be held to account for a decision which government may or may not make at some indefinite future time, and over which the proponent has no control; and
- Should government ever seriously entertain development of the Jumbo Pass highway in the future, the project would be subject to the project review procedures, which prevail at that time.

In conclusion, there is no recent evidence in the scientific literature or within the existing government databases that would support Mr. Proctor's hypothesis regarding the potential impacts on grizzly bear connectivity and population fragmentation from the Jumbo Glacier Resort access road. It is ENKON's opinion that until traffic volumes and design/posted speeds approached those of a major highway such as the Trans Canada, the impacts can be mitigated through environmental design and project planning.

Should you have any questions or require clarification please give me a call.

Sincerely yours,

**ENKON Environmental Limited**

A handwritten signature in blue ink that reads "Glenn Stewart". The signature is written in a cursive, flowing style.

Glenn Stewart, Principal

c.c. Oberto Oberti: Pheidias Project Management