

Jumbo Glacier Resort Master Plan

Appendix 8-I

PROJECT REPORT VOLUME 5

Jumbo Glacier Resort Project Report

VOLUME 5

PART F: RESORT ADMINISTRATION ISSUES

PART G: FIRST NATIONS ISSUES

PART H: CANADIAN ENVIRONMENTAL
ASSESSMENT ACT ISSUES

5

Jumbo Glacier Resort Project Report

VOLUME 5

PART F: RESORT ADMINISTRATION ISSUES

PART G: FIRST NATIONS ISSUES

**PART H: CANADIAN ENVIRONMENTAL ASSESSMENT ACT
ISSUES**

December, 2003

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TABLE OF CONTENTS

PART F. RESORT ADMINISTRATION ISSUES	F-1
F.1 Resort Ownership and Management	F-1
EA Issues Profile	F-1
<i>Topic</i>	F-1
<i>Issues</i>	F-1
<i>Relevant Project Components</i>	F-1
<i>Lead Agencies</i>	F-1
<i>Relevant Public Comments on Application and Draft Specifications</i>	F-2
<i>Relevant Proponent Comments on Draft Specifications and Specifications</i> <i>Feedback</i>	F-2
<i>Related Issues and Relevant Specifications</i>	F-2
<i>Additional EA Reporting Requirements?</i>	F-2
<i>Context for Issue</i>	F-2
<i>Review of Application/Evaluation</i>	F-3
Project Report Specifications – F1	F-3
RESPONSE – F.1	F-4
F.2 Local Governance Issues.....	F-5
EA Issues Profile	F-5
<i>Topic</i>	F-5
<i>Issues</i>	F-5
<i>Relevant Project Components</i>	F-5
<i>Lead Agencies</i>	F-5
<i>Comments also Received From</i>	F-6
<i>Relevant Public Advisory Committee Comments on Draft Specifications</i>	F-6
<i>Related Issues and Relevant Specifications</i>	F-6
<i>Additional EA Reporting Requirements?</i>	F-6
<i>Evaluation</i>	F-6
Background.....	F-6
Governance Options	F-7
Factors in Selecting a Governance Option	F-9
Role of EA Process.....	F-9
Project Report Specification – F.2.....	F-11
RESPONSE – F.2	F-11
PART G. FIRST NATIONS ISSUES	G-1
G.1 First Nations Study Program	G-1
EA Issues Profile	G-1
<i>Topic</i>	G-1
<i>Issues</i>	G-1
<i>Relevant Project Components</i>	G-1
<i>Lead Agencies</i>	G-1
<i>Comments also Received From</i>	G-2
<i>Relevant Public Comments on Application and Draft Specifications</i>	G-2
<i>Related Issues and Relevant Specifications</i>	G-2

Table of Contents

<i>Additional EA Reporting Requirements?</i>	G-2
<i>Review of Application/Evaluation</i>	G-2
Background.....	G-2
Role of EA Process in Assessing Aboriginal Rights	G-4
Aboriginal Title	G-5
<i>Issues of Concern to First Nations</i>	G-5
Archaeological Assessment.....	G-5
Traditional/Cultural Use Assessment.....	G-6
Other Issues of General Relevance.....	G-6
Proposed Traditional Use Inventory and Impact Assessment (TUIIA)	G-7
Co-operative Study Approach – Dispute Resolution	G-8
<i>Other Potentially Affected First Nations</i>	G-9
Project Report Specifications – G.1	G-9
<i>Consultations and Impact Assessment</i>	G-9
Conditional Project Report Specification – G.1	G-10
<i>Dispute Resolution</i>	G-10
RESPONSE – G.1	G-10
PART H. CANADIAN ENVIRONMENTAL ASSESSMENT ACT ISSUES.....	H-1
Application of Federal EA Process.....	H-1
Review Requirements for a Screening under CEEA.....	H-3
H.1 Impacts on Fisheries and Fish Habitat	H-3
EA Issues Profile	H-3
<i>Topic</i>	H-3
<i>Issues</i>	H-4
<i>Relevant Project Components</i>	H-4
<i>Lead Agencies</i>	H-4
<i>Comments also Received From</i>	H-4
<i>Relevant Public Comments on Application and Draft Specifications</i>	H-4
<i>Relevant Public Advisory Committee Comments on Draft Specifications</i>	H-4
<i>Related Issues and Relevant Specifications</i>	H-5
<i>Additional EA Reporting Requirements?</i>	H-5
<i>Evaluation</i>	H-5
Jurisdictional Context.....	H-5
Sources of Information for Further Assessments	H-6
Project Report Specifications – H1.....	H-7
RESPONSE – H.1	H-9
H.2 Cumulative Environmental Effects	H-13
EA Issues Profile	H-13
<i>Topic</i>	H-13
<i>Issues</i>	H-13
<i>Relevant Project Components</i>	H-13
<i>Lead Agencies</i>	H-14
<i>Comments also Received From</i>	H-14
<i>Relevant Public Comments on Application and Draft Specifications</i>	H-14
<i>Relevant Proponent Comments on Draft Specifications and Specifications</i> <i>Feedback</i>	H-14
<i>Related Issues and Relevant Specifications</i>	H-14

<i>Additional EA Reporting Requirements?</i>	H-14
<i>Evaluation</i>	H-15
Policy Context	H-15
Basic Principles.....	H-15
Conditional Project Report Specifications – H2	H-17
RESPONSE – H.2	H-19
H.3 Environmental Effects of Accidents and Malfunctions	H-19
EA Issues Profile	H-19
<i>Topic</i>	H-19
<i>Issues</i>	H-19
<i>Relevant Project Components</i>	H-20
<i>Lead Agencies</i>	H-20
<i>Comments also Received From</i>	H-20
<i>Related Issues and Relevant Specifications</i>	H-20
<i>Additional EA Reporting Requirements?</i>	H-20
<i>Evaluation</i>	H-20
Background.....	H-20
Suggested Approach	H-21
Conditional Project Report Specifications – H3	H-21
RESPONSE – H.3	H-22

Table of Contents

APPENDIX TO THE PROJECT REPORT

Jumbo Glacier Resort Master Plan Concept:¹

- Volume 1: Introduction
- Volume 2: The Site
- Volume 3: Environment
- Volume 4: Project Components
- Volume 5: Infrastructure
- Volume 6: Socio-Economic and Market Analysis
- Volume 7: Approval Process and Governance
- Volume 8: Map Volume

¹ The Master Plan is the primary Appendix to the Project Report. Because of its size, and the fact that it is applicable to all Volumes of this Project Report, it is published as a free-standing or “floating” document for ease of reading.

LIST OF APPENDICES FOR VOLUME 5 OF THE PROJECT REPORT

- (CONFIDENTIAL) Utilites/ Strategic Implementation Programme:
Letter of Intent between Glacier Resorts Ltd. and the
Kinbasket Development Corporation Appendix 5-A

PART F. RESORT ADMINISTRATION ISSUES

The form of corporate management and local government envisaged for the development site, which is currently located in unincorporated rural territory, needs to be clarified for the project committee. Related resort administration and governance issues have been raised in various sections of these specifications. How this resort community is managed will influence many service-related issues, such as who delivers services, and who pays for them.

Section F addresses two aspects of resort administration:

- resort ownership and management - section F.1; and
- options for local governance - section F.2.

F.1 Resort Ownership and Management

EA Issues Profile

Topic

Resort's ownership/management structure.

Issues

- Implications of an evolving resort ownership and management structure for:
- local participation in resort operations; and
- continuity of agreements to fund and maintain facilities, and to fund and
- deliver services.

Relevant Project Components

- All on-site facilities.
- All facilities and activities for which costs are internalized to project.

Lead Agencies

- Ministry of Environment, Lands and Parks (MELP) – BC Environment and Lands
- Ministry of Employment and Investment (MEI)

Relevant Public Comments on Application and Draft Specifications

- Phased-in development, and ownership arrangement for resort, will eliminate risk of bankruptcy or need for public money. (15g)
- How demonstrate that project is economically feasible? Full disclosure of financial arrangements needed. (15h)
- Is there contingency plan if development proceeds, but not as planned. (15l)
- Is Pheidias Project Management Corporation a reputable developer? What is its track record? (15m)
- Doubts about whether resort would be properly managed. Proponent's Board of Directors have no experience in operating ski resort. (15n)
- Little or no focus in review process on running of resort, reflecting proponent's 'development only' role. (15o)
- How would resort be decommissioned if it fails?

Relevant Proponent Comments on Draft Specifications and Specifications Feedback

- Proposal on record does not request government financial assistance.

Related Issues and Relevant Specifications

- Re. various service delivery/infrastructure issues, including costing and funding issues, see sections E.7 and E.8.
- Re. local governance issues, see section F.2.

Additional EA Reporting Requirements?

Yes – see section F.2; draft specs. consolidated, simplified, now focus on the continuity of agreements for funding, facility maintenance and impact management.

Context for Issue

The proponent is proposing a significant new resort community, entailing a sizeable investment during a development timetable of at least 20 years to achieve full 'build-out'. This will involve installation of on-site infrastructure such as a community road system, storm drainage management systems, water supply and solid and liquid waste disposal systems, and other types of environmental protection works. In addition, the new resort community will need to be able to rely on significant supporting off-site infrastructure which

must be maintained and upgraded over time. While some facilities, such as local roads, are incremental capital projects, others may entail substantial one-time costs, or else, the flexibility to stage costs may be limited (e.g. the potential costs of upgrading the access road). The resort community's residents and visitors will also need to have access to a variety of services, such as policing and judicial, educational, health and emergency management services. The proponent's intentions for the long-term management of the resort are relevant to this issue.

Review of Application/Evaluation

In its application (see *Volume 1*, pages 8 to 10, and *Volume 2*, pages 288 to 300), and also in subsequent correspondence, the proponent has identified some (at least) of the parties which are expected to be involved in long-term operations at the resort. It is understood that management of the resort will evolve over time, and it appears that future ownership of facilities and operations will be less consolidated than at the outset. It is not clear what bearing this will have on the resort's own long-term obligations to fund and deliver infrastructure and services, and this needs to be more fully explained in the project report.

An evolving ownership and management structure as the resort is developed has implications for the long-term continuity of agreements to fund and maintain project facilities, and also to fund and/or deliver required services. It also has a significant bearing on the ongoing management of impacts for which measures are agreed prior to project development. The issue is raised here with specific reference to the long-term resort ownership and management structure envisaged by the proponent.

Project Report Specifications – F1

1. The proponent must indicate how it envisages that continuity will be assured with respect to the funding and maintenance of facilities and services as the resort ownership and management structure evolve over time. More specifically:

- how will significant incremental and one-time private sector capital costs be funded?
- what forms of legal agreements and contracts will be used to permit the management responsibility for resort operations to be diversified through transfer to different or additional parties over time?
- how will these transfer agreements deal with the transfer of the impact management obligations which would become conditions of any project approvals granted to Glacier Resorts Ltd., as the present proponent?

RESPONSE – F.1

Ownership and management control will be maintained primarily by four parties:

1. The Crown, represented by the Provincial Government, is the owner of all the land initially. It will continue to maintain ownership over most of the land and to maintain control over the ski area and the resort. The land will be assigned according to CASP. It will be sold to the Proponent for the construction of the overnight accommodation (in proportion with the capacity of the lifts installed and according to the bed unit calculations and the Master Plan), leased to the Proponent for the part that is required to operate the ski area, and managed by the Proponent under tenure agreement with the Province for the area defined as the Controlled Recreation Area. The Province will maintain full control under the Master Development Agreement in a similar way as a major landlord would control a single tenant. The laws, policies and regulations of the Province will apply.

The Master Development Agreement defines the contract between the Province and the proponent and defines the protection of the public regarding the type of future contracts, continuity of operations and transfer of ownership, which can only occur with the Province's approval. Previous Master Development Agreements of the Province and other ski resorts are a precedent that responds to this question, and in particular to the question regarding "the transfer of the impact management obligations which would become conditions of any project approvals granted to Glacier Resorts Ltd."

Conditions of approvals and management obligations are made part of the Master Development Agreement by the Province and non compliance with these conditions would become a case of "default" under the agreement, which may cause the loss of the ski area by the developer. The Master Development Agreement remains in force even when the Province approves a change of ownership of the developer, and a new developer takes over. The Master Development Agreement has the same effect of a covenant over the entire area and continues to be in force regardless of other changes, consequently any management agreements included as part of the approvals would continue as long as the ski area exists.

Regarding significant incremental and one-time private sector capital cost funding, the system will be similar to that of other resorts, in particular similar to the system that was put in place at Kicking Horse Mountain Resort, when the Kicking Horse Mountain Resort Limited Partnership was established. The initial group that has funded the Limited Partnership that owns the development rights, Glacier Resorts Limited Partnership, is expected to fund the one time capital costs, perhaps in joint venture or with an expanded partnership including other groups, which will be repaid over time by the proceeds of the project and the return on operations. The one time capital costs of the service requirements will be funded through a public utility company, which will be funded by Glacier Resorts Limited Partnership or by a Venture Capital Corporation or by a joint venture partner such as the Kinbasket Development Corporation.

The forms of legal agreements and contracts that that will be used to permit the management responsibility for resort operations to be diversified are those currently used by other similar resorts. There is no standard form, but a typical structure is that of creating a development company for the overall project development and a separate company for ski area and mountain operations. The relationship between the two is covered by corporate agreements. Ownership and control is normally in proportion to capital invested and is reflected in the

amount of shares owned by the various participants in the above noted corporate structures or in the Limited Partnership units that reflect the investment of the overall developer, Glacier Resorts Limited Partnership. Share acquisition and transfer and the acquisition and transfer of units allows the diversifications that is at the origin of the question. The Province maintains ultimate control because changes of ownership and control in the developer of a mountain resort such as the one proposed have to be approved by the Province.

In the above noted transactions the legal entity that has the permits and the contracts with the Province, such as the Master Development Agreement and related obligations, maintains continuity of contractual agreements, representing all the various groups and investors that have to be approved by the Province. This legal entity is the original Proponent company, Glacier Resorts Ltd., which is the General Partner (the managing partner) of the Glacier Resorts Limited Partnership, the investor group. Glacier Resorts Ltd., which will continue to be the agent of all the parties involved with the project unless removed under conditions of default by the Province, will be legally responsible and maintains the continuity of the impact management obligations and all the obligations that come with a development of the type proposed.

F.2 Local Governance Issues

EA Issues Profile

Topic

Local governance of resort community.

Issues

- Resort community's need for both local government and 'public' services, and also 'private' services related to business promotion.
- Special service requirements of mountain resort communities.
- Range of governance options to provide both 'public' and 'private' services.
- Factors in selecting governance option.

Relevant Project Components

- On-site resort community – all components

Lead Agencies

- Ministry of Municipal Affairs (MMA)

Comments also Received From

- Regional District of East Kootenay (RDEK).
- Ministry of Employment and Investment (MEI).

Relevant Public Advisory Committee Comments on Draft Specifications

- Recommend additional spec.: "...The proponent must identify the need for community amenities for permanent residents who will reside at the resort and...how the proponent will...provide those community amenities..."

Related Issues and Relevant Specifications

- Re. various service delivery/infrastructure issues, including costing and funding issues, see sections E.7 and E.8.
- Re. resort ownership and management, see section F.1.

Additional EA Reporting Requirements?

Yes – see section F.2.

Evaluation

Background

The resort community will require: (i) local governance and 'public' services; and (ii) 'private' services related to business promotion. The demand for public services, such as sewers, water and fire protection, exists in all mountain resort communities, as in any growing community. At the same time, these communities also have a special need for co-ordinated business-related services, such as a central reservation system, signage and marketing. A variety of special circumstances need to be addressed at mountain resort communities, such as the following:

- mountain resort communities are often located in unorganised, rural areas;
- mountain resort communities are usually surrounded by Crown land;
- mountain resort communities experience rapid growth and escalation in land values;
- populations fluctuate strongly on a seasonal and weekly basis, putting pressure on both public and private services;

- a few initial resort owners shoulder relatively large risks compared to later investors, and therefore risk much more if the resort community experiences financial difficulty; and
- individual businesses rely on collective success, and therefore everyone involved must be very focused in promoting the resort's businesses.

Currently, all land at the resort site is Crown land, but, as at other ski resorts in British Columbia, the proponent envisages the transfer of some land in the base development area to private ownership (i.e. to be held in fee simple by private parties). Local government would have jurisdiction over the private land holdings, and could regulate the use of land through both Official Community Plan (OCP) and zoning bylaws. Indeed, even though the entire area consists of Crown land at this time, the RDEK, the body which currently discharges local government's jurisdiction over the area, has previously zoned the area A-1 (Rural Resource Zone), a zoning by-law designation which is intended to be compatible with current Crown-land-based activities in the area.

Governance Options

There are various options for providing local governance and business promotion services. First, with respect to governance, although the site is some distance away from Invermere, hypothetically, one option might be to include it within that municipality, as has occurred in the past with other types of developments in unincorporated areas in BC. The principle behind such an approach is that it makes it possible to directly link the respective economic interests of the development in question and the local municipality, providing a framework for delivering municipal services and infrastructure, and assigning to the local municipality a leading role in managing development. However, local government members of the project committee consider it highly improbable that this option will receive serious consideration in this case, given the distance of the resort from Invermere and the fact that the Panorama ski resort remains in unincorporated territory. Assuming that this option will be dismissed, a second option is that the resort community could remain unincorporated, with the RDEK managing the development and the delivery of local government services at the resort.

Still other options are available under the new *Mountain Resort Associations Act*. For example, the province, with RDEK agreement, could establish a 'mountain resort improvement district' (MRID), which could provide local public services such as water supply and fire protection to the area (although not business promotion services). Responsibility for land use planning and regulation would continue to rest with the RDEK. MRID status might be an appropriate temporary means of providing services at the outset of development, if the RDEK

is not in a position to do so. A MRID is created by Cabinet order, and is supervised by MMA. A MRID would have a board of trustees, elected by the electors of the improvement district, either at an annual general meeting or in a formal local-government-style election. It would have no direct reporting relationship to the RDEK, although, as noted above, the latter would have to approve its creation.

This legislation also provides opportunities to create institutional structures to promote the economic interests of a mountain resort. One option is to set up a mountain resort association (MRA). Under the new legislation, the Minister of Municipal Affairs, with the approval of the regional district or local municipalities, could formally establish a 'mountain resort area' (MRAr). The Minister could consider such a designation at any location where year-round recreation facilities already exist or are proposed (including overnight accommodation and ski lift operations). Within a MRAr, the Minister may then designate some land to be 'mountain resort land', and at the same time, may, by order, incorporate a MRA to oversee the promotion of the business or economic development interests of a resort. An MRA, once created by MMA, has the status of a reporting society under the *Society Act*, and is supervised through the administrative mechanisms set up under that Act. An MRA would have a board of directors, elected by its members at an annual general meeting in accordance with its bylaws and the *Society Act*. The bylaws have to be approved by the Minister.

An MRA is empowered to provide business-related services necessary to promote a successful resort, but not to deliver local governance or classical public services (e.g. planning and land use regulation, sewer, water, local roads, local parks, etc.), which continue to be delivered by the relevant local government, and funded through the local government taxation system. As a society, it may acquire and hold property, and thus may indirectly become involved in the delivery of recreation facilities. An MRA has the authority, as set out in its bylaws, to impose levies on its members for business promotion services and any facility management related to its land holdings, and is accountable to its members. Within the designated mountain resort land, membership of an MRA by businesses and land owners is required. A MRA is a legal entity with a built-in taxation system, and with the mandate to promote the collective economic interests of a community through effective marketing and promotional programs.

A second option for promoting the business interests of a mountain resort is to create what is termed a 'mountain resort business improvement area' (MRBIA) by bylaw. Businesses which operate within such areas, and owners of property in such areas, can be incorporated with a similar mandate to those within a MRA (i.e. to finance effective marketing and promotional programs), but, while not directly under local government's control, are required to develop a budget for local government approval, to account for its expenditures, and be willing to be audited. MRBIAs would deliver business-related

services only, while local government would continue to be responsible for local governance and public services, and thus, would retain its taxation authority. Essentially, a MRBIA is a local government vehicle to levy and collect a property tax levy from the business community on behalf of the business community. The municipal council or regional district board merely acts as a financial agent for a non-profit association or corporation, usually the former. The association would be incorporated under the *Society Act*, would have its own set of bylaws, and would elect a board of directors at an annual general meeting.

The new legislation is modelled on the *Resort Municipality of Whistler Act*, and provides developers and mountain resort communities with a legislated basis for supplying and paying for both public and private services through the modification of existing local government powers. Further information is contained in the 1996 MMA publication: *A Guide to British Columbia's Mountain Resort Associations Act*.

Factors in Selecting a Governance Option

The question of local government structure is complex, but should be resolved at a fairly early stage of the development, so that, if some form of mountain resort designation is intended, this can be addressed in consultation with the relevant local government. The appropriateness of the various local governance and business promotion options depend on such factors as the size of the resort, the extent to which there is a permanent year-round population and the diversity of the ownership structure of the community. Thus, it may be that, with respect to governance, after weighing the pros and cons, inclusion within Invermere's boundaries would be the more straightforward option. Alternatively, the continued provision of local governance and service delivery by the RDEK may be most appropriate. In enacting the *Mountain Resort Associations Act*, government envisages resorts passing through various transitional phases before qualifying for municipal status, which would have to be preceded by a referendum, once there is a permanent, full-time, year-round population. The issue of incorporation would ultimately be considered only when there is a permanent resident population which is in a position to determine how it can best be governed.

Role of EA Process

With respect to the relationship between the determination of an appropriate form of governance for the resort community and the current EA review of the Jumbo Glacier project, the project committee wishes to clarify that decisions on creating the institutional structure for local governance and service delivery, and for business promotion, should be discussed by the proponent in its project report. However, decisions on the implementation of any of the options provided for in the *Mountain Resort Associations Act* would have to await a decision

Part F: Resort Administration Issues

on the overall environmental acceptability of the resort under the *EA Act* and subsequent negotiation of a master development agreement with MELP (BC Environment and Lands) under the *Land Act*.

Project Report Specification – F.2

1. In the project report, the proponent must document its views on the status and administration of the proposed resort community. More specifically, the proponent's views on the following would be of interest:

- What sort of governance structure is envisaged to support the infrastructure of the resort?
- Pending some form of incorporation, how will the community in this rural jurisdictional environment be managed?
- What is the proponent's assessment of the pros and cons of the various available governance options?

RESPONSE – F.2

1. The Government of British Columbia addressed these questions with the development of the Mountain Resort Associations Act in 1995. Sun Peaks was the first resort to take advantage of the Act with a transition order passed by cabinet at the same time as when the Act was proclaimed. Kicking Horse Mountain Resort was also made a Mountain Resort Area in year 2000 following a request of the proponent and of the Columbia Shuswap Regional District. In order to confirm the CORE land use decision at the local government level and to provide a response to the question of future governance Pheidias Project Management Corporation, on behalf of the Proponent, asked the EKRD to request from the Minister a designation of Mountain Resort Area for the Jumbo Glacier Resort project area. The Regional District passed a resolution requesting that the Minister declare a Mountain Resort Area as requested, but the Minister did not act on the request.

The Proponent expects that following the Master Development Agreement with the Province the Minister will declare the project area a Mountain Resort Area in accordance with the Mountain Resort Associations Act. This will allow the resort to organize its governance along two main structural lines:

1. Following the establishment of a Mountain Resort Area by the Province, a Mountain Resort Improvement District will be formed in accordance with the Mountain Resort Associations Act. This authority will enter into contracts with utility and service providers and will organize all public services for the resort. Over time it will also organize a volunteer fire department according to the guidelines outlined in the publication from the Office of the Fire Commissioner entitled "Establishing and Operating a Fire Department ". Compliance with the B.C. Building Code may be enforced contracting out planning reviews and inspection services to a local government nearby or, preferably, establishing a Certified Professional Program through which the design professionals will certify Building Code compliance to the Mountain Resort Improvement District.
2. A Mountain Resort Association will be formed in accordance with the Act to organize all private businesses and the developer in a single Society that will promote the business interests of the resort.

Part F: Resort Administration Issues

Experience has demonstrated that by far the most appropriate solution for remote resorts is the structure envisioned in the Mountain Resort Associations Act, described above, and originally proven for the governance needs of Whistler. However, if the Government chose that this is not the form of governance desired, then local government services could be provided by the Regional District, from its Cranbrook office, as is currently the case for Panorama.

The Proponent believes that applying the Mountain Resort Associations Act will be the only workable and practical solution, particularly in view of the remoteness of the area from other local governments and of uniqueness of the needs of the planned mountain resort.

PART G. FIRST NATIONS ISSUES

Three First Nations groups are members of the project committee. The comments in section G.1 of the specifications reflect the input of the Columbia Lake Indian Band (CLIB) and the Ktunaxa/Kinbasket Tribal Council (KKTC). The Shuswap Indian Band (SIB) has not provided written comments directly to the project committee on studies necessary for the project report, but has participated in discussions between First Nations, the proponent, the EA Office and other project committee members with respect to the First Nations study program.

G.1 First Nations Study Program

EA Issues Profile

Topic

Implications of project development for First Nations traditional use activities.

Issues

- First Nations views of proposed resort development.
- Role of EA process in addressing First Nations concerns.
- Issues of concern to First Nations:
 - archaeological impacts;
 - impacts on traditional and cultural uses at, and in vicinity of, project site;
 - other technical, resource management and community impact issues.
- Proposed traditional use inventory and impact assessment (TUIIA).
- Recommended First Nations consultations and co-operative study approach.

Relevant Project Components

- All on-site and off-site components in Toby/Jumbo drainage.
- Affected First Nations communities.

Lead Agencies

- First Nations members of project committee.

Comments also Received From

- EA Office
- Archaeology Branch (MSBTC)

Relevant Public Comments on Application and Draft Specifications

- Government should reject proposal now rather than pay restitution, should Ktunaxa Nation appropriate these lands. (18a)
- How can proponent acquire rights to land which is subject to land claims negotiations. (18b)
- Traditional land uses in area, such as hunting, trapping and gathering of herbs and berries, are incompatible with project. (23b)
- What is role of Sinixt people in review?

Related Issues and Relevant Specifications

- Re. land use and related land use planning issues, see section A.7.
- Re. First Nations consultations, see section A.8.
- Re. issues of concern to First Nations which are addressed elsewhere in the specifications, see below, *Other Issues of General Relevance*.

Additional EA Reporting Requirements?

Yes – see section G.1; draft specs. revised to include dispute resolution mechanism.

Review of Application/Evaluation

Background

First Nations members of the project committee have advised the committee that the traditional territory of the Ktunaxa people encompasses the drainages of the Kootenay River and the Columbia River and all of their tributaries. The Jumbo Creek proposal involves some of the land within that territory.

CLIB and the KKTC have indicated that they oppose the proposed Jumbo Glacier Alpine Resort. The reasons which they have cited may be summarised as follows:

- This type of project will result in the alienation of a large area of provincial Crown land, and, in their view, should not proceed

before treaty negotiations between the KKTC, the province and Canada are concluded. This type of development is deemed to foreclose treaty settlement opportunities.

- The development is deemed likely to have serious impacts on wildlife habitats and populations (First Nations cite grizzly bears and black bears, moose, elk, white-tail deer, mule deer, mountain goats, wolverine, carnivores, furbearers and raptors as species of concern).
- The proposed development will negatively affect water quality and quantity in Jumbo Creek.

The proponent's development plans include all of the upper drainage of Jumbo Creek, with skiable terrain extending well beyond the confines of the land parcels required for the lodge and the village. The Ktunaxa people oppose any type of permanent residential or commercial development in that area. The CLIB and KKTC maintain that Ktunaxa values for this area far outweigh monetary value.

The CLIB and the KKTC have taken the position that the project should be rejected at the conclusion of the application review stage of the EA process. However, since a second stage of review is required to complete a comprehensive assessment of the project, the CLIB and the KKTC have identified various issues which, in their view, are not addressed (or which are not adequately assessed) in the proponent's application, and which need to be more fully addressed in the project report. These issues are summarised below, where they pertain directly to First Nations interests. Other CLIB and KKTC issues or concerns which are of more general interest and have implications for other parties to the review are identified and outlined at appropriate points throughout these specifications.

The SIB has also expressed its views on the project. It has noted the following points:

- the SIB is proud of the traditions of First Nations, and wishes to preserve the unique insight of its ancestors into the relationship between man and nature;
- the SIB does not fight nature, but works with it, and is part of it;
- the bear is also part of the SIB nature, and the SIB knows where the bear is, and lives with and respects it;
- the SIB also lives with, respects, and works with other people;
- the SIB sees a future for tourism in the region, because the SIB is not here to combat economic growth, but to participate and assist in it;

Part H: Canadian Environmental Assessment Act Issues

- tourism is the economic future of this part of the Kootenay region, and the SIB views with favour serious initiatives which will contribute to regional growth;
- the SIB can contribute to, and is seeking ways to participate in, this growth;
- the SIB does not want to await the outcome of treaty negotiations before economic activity can occur;
- the SIB finds the proposed Jumbo Glacier project interesting, and wishes to learn more about it;
- the SIB is disturbed by some antagonistic positions toward the project;
- the SIB does not believe that the white man has yet learnt good judgement and to understand nature;
- the project may be good for the valley;
- the SIB wants to see a co-operative approach taken both in the project committee and in the Columbia valley; and
- although the SIB has many commitments, it will try to find time to consider the project.

Role of EA Process in Assessing Aboriginal Rights

The *EA Act* (section 22) identifies as matters which may have to be addressed in a project report the potential impacts of a reviewable project on the exercise of Aboriginal rights. The *EA Act* (section 23) also identifies plans for consultation with First Nations as a matter which may need to be presented in a project report. These legislated provisions reflect the fact that the identification of potential infringements on Aboriginal rights requires:

- the involvement of First Nations in identifying their Aboriginal rights; and
- consultations with First Nations by proponents to determine the potential adverse impacts of projects upon the exercise of those rights.

The information gathered on potential impacts on Aboriginal rights is intended to contribute to an assessment of infringements in order for the province to fulfil its legal obligations with respect to the protection of Aboriginal rights. There is an understanding among provincial agencies that necessary information will be gathered as part of the EA process, and that it should not have to be collected again by agencies

in processing post-certification approvals. However, permitting agencies may continue to notify and inform potentially affected First Nations, particularly if the EA process consultations were not specific enough to address some details of a project (e.g. a specific on-the-ground disturbance), or if there are significant post-EA design changes.

The EA Guide (*Appendix III, First Nations Issues*) outlines the obligations, roles and responsibilities of the proponent and government with respect to these assessments. It also provides advice from First Nations on the importance of early consultation and the importance of meeting with First Nations in their communities to define the consultation process.

Aboriginal Title

The Supreme Court of Canada, in the *Delgamuukw* decision of December 1997, recognised that there is such a thing as Aboriginal title. The form or nature of that title is not clear. The Court encouraged the parties to seek a resolution of outstanding claims to title through negotiation. In BC, the intent of the treaty process is to address Aboriginal rights and title issues. At the time of release of these specifications, the province is currently evaluating the policy implications of the Court's decision, and is engaging in direct discussions with First Nations leaders and the federal government as part of this process.

In the meantime, the province recognises and accepts its legal obligations, and First Nations are encouraged to participate in the EA review of a project to address their concerns and interests (whether legal, environmental or socio-economic). Prior to a certification decision under the *EA Act*, the potential for infringements of Aboriginal rights and interests is assessed by the government. This is done through consultation by the EA Office with First Nations, and using information collected during the EA process. The Ministry of Attorney General also provides assistance at this stage.

Issues of Concern to First Nations

Archaeological Assessment

The application suggests that there are no archaeological sites in the area, based on the lack of sites recorded in the Archaeological Branch (MSBTC) database. In the view of KKTC, this may simply indicate that there have been no systematic archaeological investigations in the Jumbo Creek valley.

In the view of KKTC, a full archaeological assessment is needed of the Jumbo Creek valley and the travel corridor in Toby Creek, and should be conducted by a qualified archaeologist. This should include an

archaeological overview phase to determine potential locations of archaeological sites, followed by testing of identified high potential sites. The archaeological assessment should be undertaken in consultation with the KKTC, the CLIB and the SIB, if a satisfactory co-operative arrangement can be made.

The upgrading of the access road, and the potential to disturb sites, is of particular concern in this regard. Since project development may lead indirectly to upgrading or changed use of the Earl Grey Trail in this area (see also section E.5.B), the archaeological assessment should include the area around the trail where it traverses Jumbo Pass and Earl Grey Pass.

Traditional/Cultural Use Assessment

The Jumbo Creek valley has substantial resources (wildlife, berries, medicinal plants, etc.) of important social, economic and cultural value to First Nations. The valley may also have other values for First Nations. No mention is made in the application of impacts on First Nations uses and interests in the area.

A full assessment of traditional and contemporary First Nations use of the Jumbo Creek valley must be undertaken, and the study should also extend to surrounding valleys which are included in the wildlife study area identified in section D.3.B of these specifications. The project committee strongly recommends that the work be undertaken in co-operation with the KKTC, the CLIB and the SIB, and in accordance with the draft terms of reference for the TUIIA (see below for details). Methodologies for this type of assessment have been developed and refined through the KKTC Traditional Use Site (TUS) inventory pilot project. Elder and family head interviews are the key methods employed, supported by ethnographic, ethno-botanical and archival research.

Other Issues of General Relevance

The CLIB and KKTC have provided input on a variety of other issues for which the scope of interest goes beyond First Nations concerns. These issues have been addressed elsewhere in these specifications, as follows:

- wildlife impact assessment - see sections D.3.B to H;
- fisheries - see section D.3.A;
- water supply - see section D.2.A;
- wastewater - see section D.1.B;
- stormwater management - see section D.1.B;

- road development - see sections D.3.F, and E.6.B to D; and
- socio-economic impacts of project development on Aboriginal communities - see various parts of section E, notably sections E.1 through E.4, E.5.B and F, and E.10 through E.12.

Proposed Traditional Use Inventory and Impact Assessment (TUIIA)

The KKTC has developed draft terms of reference to complete a *Traditional Use Inventory and Impact Assessment (TUIIA) for the proposed Jumbo Glacier Alpine Resort Area*. These terms of reference have been developed through a series of consultation meetings with representatives of KKTC member bands, and also in consultation with the EA Office and the proponent. The most recent draft of the terms of reference is dated September 3, 1996, and it is recognised that some fine-tuning of the document may still be needed. The proposed TUIIA will benefit from the comprehensive Traditional Use Site (TUS) inventory study being undertaken by the KKTC for its entire traditional territory, and in particular will utilise infrastructure and capacity developed for the comprehensive study.

The objectives of the proposed TUIIA study are:

- to identify the areas of cultural heritage and/or traditional use value, including reference to ceremonial and sustenance activities;
- to provide a baseline inventory of cultural and heritage resources in the study area;
- to assess potential impacts of the proposed project on Ktunaxa and Kinbasket traditional uses;
- to recommend means of avoiding or mitigating potential impacts of the proposed project on Ktunaxa and Kinbasket traditional uses which would be acceptable to the Ktunaxa Nation and Kinbasket peoples; and
- to establish procedures for ongoing consultation and the management of cultural heritage resources in the project area, should the project proceed.

Products of the proposed TUIIA would include:

- a database containing information regarding historic and current land use;
- overview maps outlining areas of high, medium and low significance;
- an overview report; and

- a draft agreement with respect to ongoing reporting and consultation on the management of cultural heritage resources.

Subject to agreement between the KKTC and the proponent, the project committee endorses the KKTC proposal as an approach which will ensure the level of First Nations involvement necessary to produce a reliable study. While the intent is that the KKTC would undertake the TUIIA in order to provide information to be used by the proponent for purposes of project planning, impact assessment and impact mitigation, the project committee stresses that the final obligation to report on the project's potential impacts on First Nations traditional use resides with the proponent.

The proponent, the EA Office, CLIB, SIB and KKTC held discussions for much of 1996 on a joint co-operative arrangement for implementing the First Nations study program for this project. Considerable progress toward an agreement appears to have been made, and the project committee strongly encourages the proponent to conclude a joint co-operation agreement for the study program necessary to address First Nations issues and concerns with respect to this project. Where such a co-operative arrangement can be achieved, the reliability of the resulting assessments is usually greater than if the information is generated by other means.

Co-operative Study Approach – Dispute Resolution

It has been noted elsewhere in these specifications (see section A.6), that, for certain reporting requirements, the preference of the project committee is that the proponent should work jointly or co-operatively with other party(ies) in collecting information or conducting assessments for the project report. Such stipulations typically reflect the project committee's view that the other identified parties are uniquely knowledgeable with respect to issues in question, and that reporting which is based on co-operative exchanges with them would increase confidence in the findings.

However, the possibility is recognised that, for whatever reason, a satisfactory co-operative working relationship with the cited parties may not be achievable within a reasonable timeframe, and in such circumstances, as stated above, the reporting requirements are ultimately the responsibility of the proponent. In the event that the proponent and First Nations are unable to agree on a co-operative approach to the undertaking of the necessary traditional use studies for this project, specification G.1#5 stipulates the dispute resolution mechanism which is to be followed.

It is the responsibility of the proponent to obtain the required information, through consultations with the affected Bands and the KKTC.

Other Potentially Affected First Nations

To the extent that the project may have impacts to the west of the main watershed divide in the Purcell Mountains, it may affect areas which were traditionally used by other First Nations people. Primarily within the context of the wildlife study program, the proponent should meet with representatives of the Shuswap Nation Tribal Council and the Sinixt people to discuss their interests and concerns with respect to such impacts. Sinixt representatives have indicated that the white grizzly bear is sacred to them. Other issues, given west-side impact potential, would include impacts on animal movements and on flora used for food and medicines.

Project Report Specifications – G.1

Consultations and Impact Assessment

In the project report, the proponent must:

1. Provide a summary of consultations with each of the First Nations identified as being potentially affected by the project (the CLIB, SIB, KKTC, the Shuswap Nation Tribal Council and the Sinixt people):

- undertaken between the release of these specifications and the submission of the project report; and
- planned during the review of the project report.

2. Report on the results of those consultations, including details of:

- the incorporation of local information into project planning activities;
- employment and contracting opportunities (Note - in the case of information with respect to which reporting is specifically prevented by bilateral confidentiality agreements between the proponent and a First Nation, this should be so noted.);
- efforts made with First Nation businesses to demonstrate their capability to undertake project work;
- proposed training opportunities; and
- any plans for on-going (i.e. post-EA) consultation and identification of impacts on First Nations interests.

3. Assess the potential impacts of project development on First Nations contemporary and traditional uses and interests, including specifically (but not limited to) the following matters, which are more fully described in the study terms of reference which have been developed between the First Nations, the proponent and the EA Office in draft form (see section G.1(b), for further discussion):

Part H: Canadian Environmental Assessment Act Issues

- archaeological impacts;
 - socio-economic impacts on the Columbia Lake Indian Band and the Shuswap Indian Band;
 - current and traditional uses; and
 - other First Nations interests which are identified in consultation with First Nations.
4. Detail measures to prevent or mitigate any adverse effects on contemporary or traditional First Nation uses at, and in the vicinity of, the project site.

Conditional Project Report Specification – G.1

Dispute Resolution

5. Recognising that the proponent, First Nations and the EA Office have worked together to develop draft terms of reference for a study intended to address some of the First Nations interests and concerns, and that this reflects the mutual desire of all of the parties to work co-operatively together, nonetheless, in the event that, despite the proponent's best efforts, such a co-operative working relationship is not achieved bilaterally, the following dispute resolution mechanism shall be followed:

- should the First Nations and the proponent fail to develop a mutually acceptable co-operative approach, the two parties will jointly appoint an independent consultant to assess, propose an approach to, or otherwise address, those impacts or matters upon which the two parties cannot reach agreement; and
- should the proponent and the First Nations fail to agree on an independent consultant, per the previous bullet, then the EA Office, in consultation with the parties, will select a consultant to perform this function.

RESPONSE – G.1

1. The summary of consultations undertaken before the submission of the Project Report is reported in A.8, # 3. It is probably best to divide the result of the consultations in three parts: The Ktunaxa Kinbasket Tribal Council, The Columbia Lake First Nation and the Shuswap First Nation. As reported in A.8 # 3, consultations with the Tribal Council and its staff started a long time before the Project Specifications were issued and have been on going, but have not changed an unfortunate initial mindset of opposition to the project regardless of information and proposals generated by the Proponent's consultants, and based on the initial misrepresentations about the project that started being circulated in the summer 1991. The situation with the Columbia Lake First Nation is similar, but perhaps made more difficult because it does not have the larger staff of the Tribal Council with whom to discuss the project. The situation with the Shuswap First Nation has been the opposite. The relationship started on

a positive note from the beginning, it has grown steadily and in the summer of 2003 generated an agreement in principle to move forward together in the development of specific areas of the project and to expand the agreement to employment opportunities and all avenues that would be advantageous to seek the socio-economic, as well as the cultural and spiritual values and objectives of the First Nations.

Regarding the Sinixt Nation, the Proponent's consultants have been advised that it was declared extinct by the federal government in 1955, but that individual descendants still exist in the area surrounding Nakusp, which is in the West Kootenays, while the Jumbo Creek drainage is in the East Kootenays. The Proponent's consultants have been unable to contact and to identify a member of the Sinixt people to talk to, partially because it is reported that none of them live in the Columbia Valley, but will continue their efforts in this regard. The local First Nations have advised that the Sinixt people did not traditionally live in the areas of interest for the project, but a name and an address have been identified and in November 2003, the Project Outline was sent to the contact thus established with a request to be in touch to receive a copy of the Project Report and of the Master Plan for comment once they are completed.

Following the submission of the Project Report and revised Master Plan the Proponent intends to meet again with the Ktunaxa Kinbasket Tribal Council, with the Columbia Lake and with Shuswap First Nations, and with the Sinixt people if possible, to present and discuss the Project Report. The dates for these meetings will be set in consultation with the First Nations and with the Environmental Assessment Office.

2. Most of the local information was received from conversations with Chief Paul Sam and other Shuswap aboriginal people over the past ten years. Information was also obtained in conversations with Troy Hunter, who visited the valley several times with the Proponent's consultants. Most of the conversation were regarding environmental matters. Chief Paul Sam was particularly interested in discussions about Grizzly Bear issues. The economic development officer of the Shuswap Band, Dean Martin, met over many years with the Proponent's representatives discussing economic opportunities for the First Nations. The advice received through years of contact with the First Nations has been utilized to minimize the environmental impacts and to create a project that will be more inclusive of the First Nations' interests and will reflect the interpretive and spiritual values of the people who first came through this land.

The Proponent met also several times with Chief Sophie Pierre with whom it discussed employment, training, business opportunities and local and environmental issues. These issues were discussed also with Thomas Manson, Diana Cote and Wayne Choquette. As a result of these discussions the revised Master Plan reflects more clearly the response to the concerns and the opportunities that have been discussed.

The Proponent has for years maintained a contact with the Economic Development Office of the First Nations at the Invermere office of the Shuswaps, and has had on-going meetings at the office of the Ktunaxa Kinbasket Tribal Council. In particular, the Proponent's consultants have assisted in the creation of the Interpretive Centre in the St. Eugene development, have followed the development of the resort at St. Eugene and of the Kinbasket Development Corporation initiatives in Invermere, including the creation of a utility providing sewer and water, the development of residential and commercial subdivisions and the creation of a golf course that is the initial step towards a new resort development.

Consultations planned during the review of the Project Report:

Following the submission of the Project Report and revised Master Plan the Proponent intends to meet again with the Ktunaxa Kinbasket Tribal Council, with the Columbia Lake and the Shuswap First Nations' people and with the Sinixt people if possible, to present and discuss the Project Report and to review the project proposals and impacts. The dates for these meetings will be set in consultation with the First Nations and with the Environmental Assessment Office. The Proponent hopes that as a result of these further consultations the First Nations will approve the good intent of the Proponent and endorse the project. Cooperation will then continue in a variety of ways that are outlined in the project report and in the Master Plan.

The results of the consultations with First Nations have been important and have affected project planning, employment and contracting opportunities that will be created with the project. The consultations have also increased the Proponent's appreciation of the First Nations business and entrepreneurial abilities, and the Proponent plans to continue the positive interaction with First Nations in the future.

The incorporation of local information into project planning activities:

The Master Plan modifications between 1995 and the current plan are a result of many meetings and discussions, ranging from early discussions with chief Paul Sam to the meetings with Chief Sophie Pierre and with Thomas Munson and Troy Hunter of 2002, resulting in particular with the reductions and modifications to the Controlled Recreation Area and the definition of the Interpretive and Environmental Monitoring Centre as an important part of the Master Plan and of the activities that will complement its implementation. The incorporation of the first Condotel in Phase I as a First Nations project in the hospitality industry and of the utility service provider as a First Nation entrepreneurial initiative are also a result of the meetings and consultations noted above (see also Project Report Specification response E.1 #2). There have been also discussions and drafts of Traditional Use and Archaeological Studies that have been utilized to review the Master Plan with the intent to mitigate potential or perceived impacts. In this regard a careful review has been undertaken to make sure that the Master Plan layout mitigates any visual or physical interference with the Glacier Creek/Jumbo Pass/ lower Jumbo Creek corridor that has been presented as important to First Nations interests in discussions as well as in the draft studies that have been under way. The Proponent has taken this positive approach even if the advice received from the First Nations has been diverse, as there seem to be different interpretations of traditional use, history, values and information in the different groups that comprise the First Nations.

Employment, contracting and training opportunities:

Great progress has been made in this regard with the Shuswap First Nation, with whom the Proponent has signed an agreement in principle for the utility services and for a wide ranging form of cooperation and employment opportunities. The agreement has been provided in confidence to EA Office for information (included as Confidential Appendix 5-A), and is the first step and the basis for the implementation of a form of cooperation that will provide for local First Nations participation in ownership and employment opportunities covering the entire spectrum of project activities. The employment and contracting opportunities are explained in greater detail in the Master Plan, Vol. 6, Section 6.3.10 and in the response to section E.1 #2

of the Project Report. It should be emphasized that while the Proponent's project team has only been able to establish a climate of cooperation with the Shuswap First Nation, who are the group in closest proximity to the project, the hope remains that the other First Nations members individually or as a group will embrace the project.

Currently a joint training opportunity with the International Union of Operating Engineers in agreement with the local First Nations to train and employ native people in the operation of the ski area is one of the areas of cooperation being studied. Guiding, ski patrolling and avalanche control and monitoring are also areas of activity and employment that may be included in this program.

On-going training and an employment equity program for First Nations have been proposed. These are outlined in the Master Plan Vol. 6, Section 6.3.10.2.

A First Nations Interpretive Centre and on-going environmental and socio-economic monitoring station is being proposed as part of the project (see Master Plan Vol. 6, Section 6.3.10.3.3)

Specific proposals are being developed along the lines of the letters to chief Sophie Pierre (see Appendix 1-D of Volume 1 of this Project Report), but as noted above, only the Council of the Shuswap First Nation has been receptive to the point of signing an Agreement in Principle and they have starting detailed discussions to move forward with their project participation.

The agreement signed with the Kinbasket Development Corporation (of which a confidential copy is attached as Appendix 5-A) is to have First Nations provide infrastructure service to the resort, particularly through their utility company, which is expected to provide water and sewer treatment services, as a first step towards a multiplicity of cooperative, joint venture and employment and training efforts.

The project will create many opportunities, employment and entrepreneurial, in which First Nations people may participate. A detailed outline of First Nations employment and business opportunities is presented in the Master Plan, Vol. 6, Section 6.3.10.

Plans for on going consultation and identification of impacts on First Nations interest:

The Interpretive Centre and Environmental and Socio-Economic Monitoring Centre will provide the focus for ongoing consultation and identification of impacts on First Nations interests. In addition, as a precaution, it is planned that future development excavation in the sawmill site and adjoining areas that have been suggested for possible additional archaeological exploration may be monitored to assess if any archaeological interest may be served by additional on site reviews of the excavation material.

3. Assessment of the potential impacts of project development on First Nations contemporary and traditional uses and interests including:

Archaeological impacts:

The issue of archaeological impacts has been addressed by the Archaeology and Registry Services Branch of the provincial Ministry noting that their office has always maintained that there is a very low potential for the presence of any archaeological sites protected under the Heritage Conservation Act within the proposed development area and, as such, their office has

made no requirements for the completion of any additional archaeological studies. The Ministry has expressed the opinion that the area has been extensively disturbed to the point where archaeological deposits are no longer likely to be present (i.e. several forest fires, extensive logging in the 1920's and 1930's, presence of a former mill at the proposed resort location) and that the physical landscape (eg. steep terrain, year-long snow cover at higher altitudes and 5 to 7 months of the year at lower levels) in the project area is unlikely to have supported the use or occupation of the project development area by aboriginal peoples.

Notwithstanding the above noted opinion the Proponent was asked in the Project Specifications to commission an Archaeological and Traditional Use Study. Terms of reference for a study were finally received from Mike Keefer of the Ktunaxa Kinbasket Tribal Council's staff by the Proponent's prime consultant, Pheidias Project Management Corporation, on June 3, 2003 and quickly accepted in order to comply with the Project Specifications requirements. The study started in July 2003 under the apparent influence of leading members of the Jumbo Creek Conservation Society and despite the concerns expressed by Pheidias, it continued on the same path leading to the final draft of the study received on December 11, 2003, which cannot be accepted by Pheidias on behalf of the Proponent because of the evident bias and of the fact that it appears to be a position paper for a treaty claim rather than the response to the terms of reference for a traditional use and archaeological study submitted on June 3, 2003. The disputed study and associated responses are included in Confidential Appendix 1-J of Volume 1 of this Project Report.

One of the disturbing aspects of the above noted study, as well as of the socio-economic study commissioned to Mark Anielski by the EA Office, is that they appear to be driven by non aboriginal people with a pre-established agenda to generate opposition to the project, while aboriginal people who felt that they had something to contribute but did not have a prejudicially negative position have been pushed aside. Because this kind of work cannot be accepted by the Proponent and its representatives, but it appears to be a requirement of the Project Specifications, it is included as a confidential appendix (Appendix 1-J of Volume 1 of the Project Report) of the Project Report for the Environmental Assessment Office, together with the correspondence that it has generated, pending a resolution of the dispute between the Proponent's representatives and the Ktunaxa Kinbasket Tribal Council's non aboriginal staff of experts. Although the study has not been accepted, it is a useful compilation of extreme views, and, even if they are deemed to be unfounded, these views have also been taken into account by the project team in the final design, in order to mitigate perceived conflicts.

The Traditional Use and Archeological Study situation will require a Dispute Resolution process, perhaps the one outlined in the Project Specifications under Conditional Project Report Specification G.1, in order to be resolved.

Socio-economic impacts:

The Proponent's project team believes that the information gathered over twelve years of consultations in a variety of forms, including discussions, presentations and developing a relationship of friendship with several aboriginal people, young and old, and working with cooperative Council members, has put them in a good position to design a project that is sensitive to the values that have been expressed and that can work to the benefit and enjoyment of all local people, but particularly the First Nations. It has not been possible to develop cooperation programs with the Columbia Lake First Nation, despite meetings dating back since at least 1994, because the relationship was damaged from the start by the

disinformation campaign. In this regard it is fortunate that the first meetings with the Shuswaps started before the disinformation campaign could affect the relationship, and allowed to develop a direct line of communication that avoided the damage that was caused with the other groups. It is hoped that with the support of the Shuswaps the Columbia Lake neighbours will be convinced to come to look at the project in a different light and with time they will see it as worthy of their participation.

The socio-economic profile as well as impacts of the proposed and agreed forms of cooperation are discussed in section E.1 #2 of the Project Report. As noted above, a socio-economic study has also been produced by a consultant, Mark Anielski, hired by the EA Office to review socio-economic conditions and opportunities. This study, like the one produced by the staff and consultants employed by the Ktunaxa Kinbasket Tribal Council, seemed to be generated by a preconceived agenda against the project and be unable to generate and deal with factual information. However it presents a large summary of the arguments brought forward for many years by the Jumbo Creek Conservation Society, an organization supported by the East Kootenay Environmental Society and special interest groups to oppose the project, and as such it has been a useful checklist of arguments against the project (mostly of a philosophical or academic nature supported by a compilation of erroneous information). It has been responded to by the Proponent's project team and the disputed study and response have been put in the confidential appendix of disputed material (Appendix 1-J of Volume 1 of the Project Report), generated by requirements of the EA Office, an Office that has been overzealous dealing with, or perhaps creating controversies unsupported by the evidence of the project and by the biophysical baseline conditions.

Current and traditional uses:

Current and traditional use has been described verbally many times by former Chief Paul Sam and other knowledgeable members of the Shuswap First Nation, who currently are the First Nation band members in the closest proximity to the Jumbo Creek drainage. Chief Paul Sam included some of his recollections in a letter to the Environmental Assessment Office that is in the public record. The Shuswaps have traditionally had a trap line running up the Toby Creek drainage into Jumbo Creek. The Traditional Use and Archaeological Study for which terms of reference were provided on June 3, 2003, was supposed to complement the information garnered over the years by the project team from a variety of sources. Instead it focused on the feelings of a number of people preconditioned against the project. It produced conjectures and hypothesis primarily regarding the use of the Jumbo Pass corridor, seemingly to establish a basis for a land claim as a pre-emptive strike against the project and against the Province. However, the conjectures of the study have been taken into account by the project team in the assessments made in order to design the project to minimize potential future impacts. The project has been designed to limit the development area upstream of the Jumbo Pass corridor, at the sawmill site in the upper Jumbo Creek drainage, where every evidence leads to believe that there would have been the least interest by earlier aboriginal people, certainly because of elevation and climate, and where at the most there might have been some untraceable and hypothetical passage of some individuals in pre-European ages. It is certainly peculiar that a dead end drainage at 1,700 meters above sea level and rising up to 3,000 meters would become the focus of an archaeological and traditional use debate. It is rather a debate about who should be permitted into the backcountry of the high mountains today.

Other First Nations interests which are identified in consultation with First Nations:

The fundamental First Nations interest, which is fully shared by the Proponent's project team, is of an environmental nature and that is the restoration and preservation of the natural environment for future generations. The environmental restoration will fulfil also the cultural and spiritual values that are at the basis of known traditions of the First Nations. In addition to this fundamental interest, the First Nations wish to participate in sustainable development and in those activities that will promote the social, and economical betterment of their people.

In the meetings, discussions and consultations since the start of the project in 1990, the Proponent's project team has been unable to identify First Nations interests that would not be summarized as above. They are outlined in the background material collected for this Project Report and referred to in the text and the Appendixes. The way the above noted interests are interpreted, however, is different among individual First Nations members and among the First Nations peoples' representatives, to the point that there has been a substantial split. The positions are divided between those who wish to see glacier skiing by means of lifts and ski resort development prohibited in the back country and those who wish to see the First Nations pioneer this initiative to become hosts to a special destination accessing the glaciers in their native lands and mountains. The first group has been convinced that the impacts will bring a "degradation of the land" while the second group believes that the impacts would be relatively easy to mitigate and that there would be no "degradation of the land", but rather a restoration of the valley after generations of industrial use. What is unique of this situation is that the First Nation members that are closer to the area, the Shuswaps, are those who believe that the impacts can be mitigated and who want to participate in the project and monitor the development, while those who are further away seem to be unconditionally opposed, at least for the time being.

4. Measures to prevent or mitigate any adverse effects on contemporary or traditional First Nation uses at, and in the vicinity of, the project site:

1. Environmental management plans, included as Appendix 3-C to the Project Report.
2. Placing the resort base where the habitat mapping and geotechnical conditions suggest the location is most appropriate.
3. Sensitive design of the resort Master Plan, upstream of potential conflicts with the Jumbo Pass corridor.
4. Reduction in size of the project to make easier the design and implementation of strategies mitigating impacts.
5. Reducing the ultimate amount of traffic with a reduction of the resort bed base and lift capacity.
6. Utilizing existing road alignments and low design speeds for the improved access road, so as not to change the access pattern.
7. Design of the resort so that it can become a completely self contained entity, that can be fenced, as a ship laid in a high valley.
8. Elimination of all hiking trails except one leading to the top of Glacier Dome through

upper Jumbo Creek, and containing the guests in the high glacier areas.

9. Elimination of lower Jumbo Creek drainage from the CRA and abolition of any use in this area except for a potential low capacity chairlift for CODA athletes.
10. Elimination of access into the Horsethief Creek drainage, to contain all activity in upper Jumbo Creek and the high glaciers.

PART H. CANADIAN ENVIRONMENTAL ASSESSMENT ACT ISSUES

Application of Federal EA Process

As noted in *Appendix A* (see section 4.2 - *Applicability of Federal EA Process to Project*), sufficient information is not available to make possible a determination of whether or not the *Canadian Environmental Assessment Act (CEAA)* applies to (or is 'triggered' by) this project. Based on the project description which is currently available, the most likely *CEAA* trigger would be the need for an authorisation under section 35(2) of the federal *Fisheries Act* for the harmful alteration, disruption, or destruction of fish habitat. Upgrading of the access road is most likely to require such authorisations. The project committee has been advised by CEA Agency that the Canadian Coast Guard does not consider those reaches of Jumbo Creek and Toby Creek which could be potentially affected by access road upgrading (e.g. where bridge improvements may be necessary) to be 'navigable' within the meaning of the *Navigable Waters Protection Act (NWP)*. Thus, the proponent will not be required to apply for a permit under *NWP*, and thus trigger the *CEAA* under that particular *Law List Regulation* trigger.

With respect to access road upgrading, as noted in section E.6.B, above, MoTH has advised the project committee that it will have a legislated duty to assume management responsibility for the access road when subdivision of land commences at the resort, and that the road will have to be significantly upgraded (see section E.6.C) to meet design standards and projected traffic loads. Based on MoTH's input, the project report specifications indicate that, in its project report, the proponent must present information on any road relocation and design adjustments which will be required to meet the specified standards. Mapping of road upgrading plans must be included in the project report, and any new stream crossings, any modifications to existing stream crossings, and any necessary encroachments into active stream channels and on to fish habitat must be identified.

DFO has a legal obligation to protect fish and fish habitat under the *Fisheries Act* for any works or undertakings which could cause a "...*harmful alteration, disruption or destruction of fish habitat...*" (HADD) by chemical, physical or biological means. DFO preferentially requires that any potential loss of productive habitat be completely avoided during all phases of a project. If impacts cannot be prevented, whether through avoidance or redesign or relocation of project components, then impacts on the fisheries resource are to be minimised and residual impacts offset. If DFO's review of a proposal determines that there is a potential for a HADD, authorisation under section 35(2) of the *Fisheries Act* will be required. The provision of such an authorisation in turn triggers a review of the proposal under *CEAA*.

DFO strives to obtain appropriate project design and mitigation measures which make such an authorisation unnecessary. As such, DFO requires the provision of site-specific fisheries information and project design information, as well as a description of all measures which are planned for completely avoiding, minimising and mitigating all effects on fish and fish habitat. With this information, DFO will determine if such an authorisation is likely to be required. If it is likely that a loss in fish habitat productive capacity will occur, and a HADD cannot be avoided through the relocation or redesign of project components or other

Part H: Canadian Environmental Assessment Act Issues

mitigative measures, DFO will determine whether or not a section 35(2) authorisation is appropriate, based on the level of protection required in relation to the habitat productive capacity. If it is determined that mitigative measures proposed by the proponent can be applied so that fish habitat productive capacity will not be lost, a section 35(2) authorisation will not be required.

Given that the uncertainty of the *CEAA* reporting requirements is unavoidable, the project committee has included federal reporting requirements in the specifications on a conditional basis. *CEAA* reporting requirements outlined in sections H.2 and H.3 must be satisfied by the proponent ONLY if *CEAA* is triggered. As such, the proponent is strongly advised to present required fish and fish habitat information and project design information to DFO and MELP as soon as possible prior to submitting its project report in order to allow a determination to be made regarding the need for a *Fisheries Act* section 35(2) authorisation for this project. This would include early presentation and discussion of access road upgrading plans with MoTH, DFO and MELP.

If *CEAA* is triggered by the need for a *Fisheries Act* section 35(2) authorisation, DFO would function as the Responsible Authority (or RA) for the *CEAA* review, and would have the responsibility for ensuring compliance with all aspects of federal EA review requirements.

If *CEAA* is triggered, then to facilitate federal agency review of the project report, the proponent should clearly indicate those places in the project report where *CEAA* requirements have been addressed.

On the basis of that information, Fisheries and Oceans Canada (DFO) and CEA Agency will be in a position to advise the project committee whether or not authorisations would be required under section 35(2) of the *Fisheries Act*, and thus, whether or not *CEAA* is triggered. Even if the potential for encroachments on to fish habitat is identified during the review, DFO may not consider a section 35(2) authorisation to be necessary if, at the conclusion of the review, the proponent's mitigation plans are deemed to be adequate to prevent a "...harmful alteration, disruption or destruction of fish habitat..." (per section 35(1) of the *Fisheries Act*). Unless such an authorisation is needed, *CEAA* is not triggered.

Given that the uncertainty is unavoidable, the project committee has included federal reporting requirements in the specifications on a conditional basis. *Federal* reporting requirements outlined in section H must be satisfied by the proponent ONLY if *CEAA* is triggered. As soon as its road access upgrading plans are known, and as soon as possible before submitting its project report, the proponent should review these upgrading plans with MoTH and DFO to determine whether or not *CEAA* is likely to be triggered.

If *CEAA* is triggered, it is most likely that DFO would function as the Responsible Authority (or RA) for the *CEAA* review, and would have the responsibility for ensuring compliance with all aspects of federal EA review requirements. As RA, DFO would have to determine the scope (or definition) of the project for federal review purposes (i.e. will federal EA review be limited to specific project components [e.g. those which actually trigger *CEAA* review] or will *CEAA* be applied to entire project?).

If *CEAA* is triggered, then to facilitate federal agency review of the project report, the proponent should clearly indicate those places in the project report where *CEAA* requirements have been addressed.

Review Requirements for a Screening under CEAA

DFO, with the advice of the Canadian Environmental Assessment Agency (CEA Agency), has determined that a screening study (rather than a comprehensive study) would be required for the Jumbo Creek project, should CEAA be triggered.

In accordance with section 16(1) of the CEAA, a screening must address the following factors:

- the environmental effects of the project, including cumulative environmental effects, and the effects of possible accidents or malfunctions;
- the significance of the environmental effects;
- technically and economically feasible measures which would reduce or eliminate any significant adverse environmental effects of the project;
- any other matter relevant to the screening that the RA may feel is necessary for an accurate assessment of the environmental effects; and
- public comments, if any.

Many of the CEAA reporting requirements overlap with those of the provincial EA process. For both processes, environmental effects must be identified, the significance of any adverse environmental effects must be evaluated, and plans to mitigate these effects must be proposed. This overlap is reflected in similar reporting requirements for the provincial EA process noted elsewhere in these specifications. In light of the recently-concluded *Canada - British Columbia Agreement for Environmental Assessment Co-operation*, the specific federal reporting requirements (e.g. all of the CEAA section 16(1) factors) which must be satisfied if CEAA is triggered are to be assessed by the proponent for reporting in the project report.

In addressing CEAA screening-level requirements for the project report, the proponent should consult the RA (expected to be DFO) and CEA Agency for further guidance on meeting all CEAA requirements on this issue.

Section H addresses three specific topics of relevance to the federal EA process:

- impacts on fisheries and fish habitat - section H.1 – obligatory reporting requirements;
- cumulative environmental effects of resort development - section H.2 – conditional reporting requirements; and
- environmental effects of accidents and malfunctions - section H.3 – conditional reporting requirements.

H.1 Impacts on Fisheries and Fish Habitat

EA Issues Profile

Topic

Implications of project development for fisheries and fish habitat.

Issues

- Federal and provincial government roles in fisheries management.
- Need to determine if approval will be required under section 35(2) of federal *Fisheries Act*.
- Technical advice on conducting fisheries assessments.
- Reporting requirements with respect to development plans, mitigation and compensation proposals for fisheries and fish habitat impacts, and impact management funding availability.

Relevant Project Components

- All on-site and off-site project components within Toby/Jumbo drainage.

Lead Agencies

- Fisheries and Oceans Canada (DFO)

Comments also Received From

- Ministry of Environment, Lands and Parks (MELP) – BC Environment and Lands

Relevant Public Comments on Application and Draft Specifications

- Both liquid waste (anticipated at 1.2 million litres/day) and solid waste would have serious impact on local fish populations. (6h)
- What impact would access road and/or resort development have on fish of Toby and Jumbo Creeks. (13a)
- Project will have negative effect on area's fish. (13e)
- Jumbo/Toby drainage supports population of Westslope Cutthroat trout, and habitat for Bull trout (which is blue-listed). Project will cause significant loss of fish in area. Cold streams are spawning grounds for Bull trout, which is endangered. Need independent review with federal involvement.
- Appears to be lack of federal/provincial review co-ordination.

Relevant Public Advisory Committee Comments on Draft Specifications

- Re. draft spec. #1 - add "...fish and fish habitat, *including salt impacts on endangered species.*"

Related Issues and Relevant Specifications

- Re. fishery impact issues, see sections D.3.A and F
- Re. land use and related land use planning issues, see section A.7.
- Re related solid waste disposal issues, see section D.1.A.
- Re related liquid waste disposal issues, see section D.1.B.
- Re. commercial and non-commercial fish-related recreation, see section E.5.F.
- Re. access road upgrading issues, see section E.6.C.
- Re. fish and wildlife resource management, see section E.7.K.
- Re. traditional First Nations use of fishery resources, see section G.1.
- Re. possible federal cumulative fishery effects assessment requirements, see section H.2.

Additional EA Reporting Requirements?

Yes – see section H.1; draft conditional specs. completely reworked as obligatory fisheries/water quality specs., designed to establish if CEAA is triggered.

Evaluation

Jurisdictional Context

DFO understands that several aspects of the development proposal could conceivably lead to impacts on fish habitat in the Jumbo Creek area, such as road realignment and upgrades, bridge crossings and village location, water management and waste disposal issues. DFO also understands that it may be possible to mitigate these potential effects at the design stage, in order to avoid harmful alteration, disruption or destruction of fish habitat, and to such an extent that a *Fisheries Act* section 35(2) authorisation would not be required.

Constitutionally, fisheries and fish habitat fall under federal government jurisdiction. However, numerous formal and informal agreements have been negotiated with individual provinces (and regions within provinces) with respect to the shared management of fish and fish habitat. In eastern BC (including the Kootenay region), the province, represented by MELP, and the federal government, represented by DFO, have established a work-sharing arrangement which will apply to the review of this project.

With respect to the Jumbo Glacier project review, DFO has been involved from the outset, since this is considered a significant project which would typically undergo public review. Except with respect to access road upgrading, the extent of which is unknown at this time, it appears that the potential for harmful alteration, disruption and destruction of fish habitat and degradation of water quality can be avoided with mitigative measures, and that, if these measures are implemented, this review can be completed by MELP, as the lead habitat protection agency. DFO review of this project would occur only as a result of a referral from MELP, if potential non-mitigatable habitat losses were identified during the MELP review.

Given the potential to disrupt the project report review stage if *CEAA* reporting proves to be required but is not provided, it is important to determine as soon as possible whether or not *CEAA* is triggered by identification of the requirement for a section 35(2) authorisation. Thus, the proponent is urged to contact MELP and DFO as far in advance of the filing of the project report as possible to review road upgrading plans and any other potential source of fish habitat disruption identified by the proponent at the next, more detailed, project planning stage.

Sources of Information for Further Assessments

In conducting its fisheries assessments for the purposes of possible application of *CEAA* to the review of this project, the proponent should consult various technical documents. For example, in terms of stream crossings and in-stream work, the proponent should consult:

- the *Land Development Guidelines for the Protection of Aquatic Habitat*. published jointly by DFO and MELP - see, in particular, Section 5 - Instream Work; and Section 6 - Fish Passage and Culverts;
- the Forest Practices Code *Forest Road Engineering Guidebook* for guidelines on encroachments, culvert installation and bridge construction;
- the bridge maintenance guidelines which are found in *Guidelines for the Protection of Fish and Fish Habitat During Maintenance Operations* in British Columbia, Department of Fisheries and Oceans, Technical Report of Fisheries and Aquatic Sciences No. 1692, January 1991; and
- *Stream Crossing Guidebook for Fish Streams* (Working Draft, 1997/1998), a joint publication prepared for DFO, MoF, MEI and MELP.

In terms of the level of detail required by DFO for an assessment of potential harmful alteration, disruption and destruction of fish habitat, the proponent is referred to the *Habitat Conservation and Protection*

Guidelines (DFO, 2nd Edition, 1998/1994), which state:

“...Typically, habitat lost through project development or created through compensation is assessed and described according to physical parameters (e.g. area or volume of habitat: littoral zone; mudflat; saltmarsh; gravel bed), combined with a biological classification (e.g. spawning grounds and nursery, rearing, food supply, and migration areas). It may be that physical and biological descriptors are all that are available, and that these will have to be used as surrogate measures to assist in defining productive capacity until ongoing research provides more precise tools.

In determining the severity of potential impacts on the fishery and fish habitat, the factors that DFO takes into consideration include:

- the potential for the project to affect fish, fish habitat and/or people’s use of fish, as well as the nature of the effect (e.g. physical disturbance, temperature change, flow alteration, release of nutrients or contaminants, reduction in dissolved oxygen, obstruction of fish migration, alteration of oceanographic or limnological regime);
- the presence or abundance of a fish species which is actively, or has the potential to be, harvested in a subsistence, commercial and/or recreational fishery;
- whether the species at risk is considered threatened or endangered;
- the productive capacity (or surrogate habitat value) of the habitat and/or the degree to which it supports an important life cycle process (e.g. spawning grounds and nursery, rearing, food supply and migration areas);
- the availability and anticipated effectiveness of mitigation and/or compensation;
- proportion of the habitat with similar productive capacity and contribution to the fish stock which may be affected;
- the habitat’s resilience to damage and the amount of time it would need to recover; and
- other relevant factors...”

Project Report Specifications – H1

The proponent must provide the following information, analysis and commitments in the project report in order to satisfy DFO’s requirements under the federal *Fisheries Act*.

1. Detailed descriptions of the existing fisheries resource values of Jumbo Creek which could potentially be affected by the proposed works or activities, identifying the species of fish which frequent the stream, fish habitat use during all life cycle stages (e.g. spawning, rearing and overwintering habitat), and riparian habitat. In part, this information has been supplied by the proponent in its application (*Volume 2*, section 4.2.2, *Aquatic Resources*, and section 4.3, *Potential Environmental Concerns*; and *Volume 5, Appendix P* – see reports *Late Summer Fisheries and Wildlife Reviews* (November 1992) and *Jumbo Valley Resort Development - Aquatic Resources* (December 1993)). However, in order to allow DFO to determine whether or not a section 35(2) authorisation under the *Fisheries Act* will be required for any aspect of project development, the following must be included in the project report:

- completion of reporting on the objectives cited in these last two reports (per specification D.3(A)#1);
- the further baseline information identified in section D.3(A) of these specifications (*Fisheries Resources*); and
- other information noted in these specifications with respect to water quality issues, water management and water supply, access road upgrading and waste management (see references in specification #3).

2. An up-to-date description of the proposed development activities, which indicates how the proposed works and activities will be carried out, a detailed site plan and timing schedule for the first phase of the project, and a conceptual-level site plan and timing schedule for phases II and III. The project report must contain, in addition to this information (per specification A.4#1), a description of all changes to the project and its various components made by the proponent since the original application was submitted in mid-1995 (per specification A.2#2), as well as any relevant post-application commitments of the proponent.

3. An impact assessment report which details potential impacts of project development on the fisheries values in Jumbo Creek, including identification of the nature, magnitude and location of potential impacts, and any effects on the downstream aquatic environment in Toby Creek. (Note – much of this information will be generated in response to the specifications in sections D.1 (*Waste Management*), D.2 (*Water Management*), D.3 (*Fish and Wildlife Resources*), E.5(F) (*Commercial and Non-commercial Fish and Wildlife Recreation*) and E.6 (*Road Access and Transmission Line Issues*).

4. A mitigation plan which describes all actions and contingencies which will be taken to avoid, eliminate, minimise and mitigate the impacts predicted through the assessments required under specification #3. If it is determined that the proposed works or activities will likely cause a harmful alteration, disruption or destruction of fish habitat, a discussion of proposed compensation measures must be presented, including their technical feasibility, with the objective of achieving 'no net loss' of fish habitat. The proponent is advised to refer to DFO's *Policy for the Management of Fish Habitat* (1986 - the 'no net loss' policy) and the *Habitat and Conservation Protection Guidelines* (2nd edition, 1998) for guidance. A commitment is required from the proponent to implement any measures necessary to mitigate, and, where appropriate, to compensate for potential adverse effects on fish and fish habitat.

5. A follow-up monitoring program designed to monitor the effects of the project during, and for a prescribed period after, project construction, since it is not possible to completely predict changes to fish habitat which might occur as a result of proposed actions. The follow-up monitoring program must describe all actions which will be taken to ensure that all proposed activities, as outlined and committed, are completed to the satisfaction of DFO and MELP, as well as required monitoring studies of the effectiveness and efficacy of habitat mitigation and (if implemented) compensation prescriptions. The monitoring program must include a commitment to hire an independent on-site environmental monitor who reports directly to the responsible agencies, and acts at 'arms-length' from the proponent and the proponent's contractors, but in concert with them, to ensure that all construction activities are completed in a manner which meets impact mitigation objectives. The environmental monitor must have the authority to stop work, and to make minor on-site design/construction changes to prevent adverse effects. The proponent must monitor streamflow to establish whether or not approved streamflow requirements are being maintained. If changes in streamflow occur, additional fish habitat monitoring will be required.

6. Assurance that any agreement with DFO regarding fish habitat mitigation and/or compensation does not adversely affect other natural resources.

RESPONSE – H.1

1. See Project Report Specifications Responses D.3(A) #1, #2 and #3 and Appendix 3-G Fisheries Resources.

2. See Master Plan Volume 4: Project Components and Project Report Specifications Responses A.4 #1 and A.2 #2.

3 and 4. To minimize or eliminate potential impacts to fish habitat, ENKON has recommended a number of different "*Streamside Protection and Enhancement Area*" zone widths for the mountain and resort base development including:

- The *Fish Protection Act-Streamside Protection Regulations* (January 2001) is applicable to the resort base residential and commercial development areas only. A 30m "*Streamside Protection and Enhancement Areas*" from Jumbo Creek mainstem and tributaries is recommended for the resort base development; and
- The Forest Practise Code "*Riparian Management Area Guidebook*" (1995) was specifically designed to apply to harvesting, silviculture and road construction practises in working forests. Therefore, ENKON classified the streams within the mountain development areas and applied the FPC guidebook recommendations for "*Riparian Management Zones*" to the aligning and construction of ski lifts and ski runs within the mountain plan areas of the resort development. "*Riparian Management Zones*" widths range from 20-30m from tributaries of Jumbo Creek associated with the development of ski runs and ski lift lines.

The FPC Stream Crossing Guidebook was also applied to the upgrading of the access road.

Resort Base Development

Potential impacts to fish habitat from residential and commercial development have been

minimized during the planning process and adherence to the recommended 30m “*Streamside Protection and Enhancement Areas*” as outlined in the *Fish Protection Act-Streamside Protection Regulations* (January 2001). As a result, there are no direct instream or riparian fish habitat impacts associated with the resort base development. Since there are no fish habitat impacts associated with the resort base development, no further mitigation measures are proposed.

However, JGR is committed to the following guiding principles and best management practices during the final design and construction of the resort development areas:

- Principle #1: Impervious Area Reduction - Although general guidelines for density designations (i.e. bed units and the number of ski lifts and runs) have been planned, development will be sensitive to impacts to stream-flow hydrology and will strive to minimize Total Impervious Area (TIA). Wherever possible, source control, interception, infiltration and diversion will be utilised to reduce impervious areas.
- Principle #2: Maintenance of Water Quality - Water quality control facilities will be designed with bio-filtration systems to treat stormwater prior to discharging into Jumbo Creek.
- Principle #3: Post Development Stormwater Discharge – Post development stormwater discharge rates will be controlled through the use of retention or detention of stormwater runoff.
- Principle #4: Post Development Stormwater Volume – Post development stormwater volumes will be controlled by containing and dispersing the runoff volume from a 2 Year return, 2 hour duration design storm.
- Principle #5: Base Flow Augmentation - Base flows will be maintained in Jumbo Creek between rainstorms through a combination of techniques.
- Principle #6: Protection of Leavestrips – Leavestrips will be maintained and/or enhanced adjacent to Jumbo Creek following the recommendations of the Streamside Protection Regulations or the Forest Practises Code.
- Principle #7: No Net Loss-Net Gain in Fish Habitat – The development will strive towards meeting no-net-loss: net gain in fish habitat through protection of fish bearing sections of Jumbo Creek and tributaries and associated riparian corridors.
- Principle #8: Integration of Site Vegetative Planting with Natural Areas – The development will integrate re-planted areas with adjacent riparian corridors and ecological features.
- Principle #9: Monitoring – A biological, physical habitat and continuous water volume and quality sampling program will be implemented pre and post-development.

Mountain Development

To minimize impacts to fish habitat, design and location of ski runs and ski lifts have followed the Forest Practice Code-Riparian Management Area Guidebook (1995) recommended riparian management zone widths as follows:

- Where ski lifts and runs are located parallel to streams, a 20-30 m wide riparian management zone width is proposed for S4, S5 and S6 streams.
- In addition to riparian management zones, the following environmental protection measures were taken into account by the Proponent during the planning and design of the ski

runs/trails and lifts:

- Ski trails/runs will cross perpendicular to streams where possible;
- Ski lift towers will span riparian corridors;
- No ski lifts or runs will cross fish bearing sections of any stream; and
- Many of the ski runs are located within existing heli-ski runs that have either been previously logged or are above the tree line.

To further minimize potential impacts from mountain development, ENKON also recommended a number of mitigation measures and “Best Management Practises” as per the recommendations in *‘Environmental Objectives, Best Management Practices and Requirements for Land Developments, Vancouver Island Region’* (MELP 2001) and the Forest Practice Code.

Access Road Upgrade

Currently, access to the proposed resort is provided by the Toby Creek road from Panorama Resort to the Mineral King Mine site, where access is further continued along the Jumbo Creek Forest Road. The existing road conditions vary throughout its length from what one could classify as a good, low volume road to an average gravel logging road in some sections. The operational speed of the existing road varies but would generally be classified as 50 kph with several sections where this speed is not achievable for safe operation due to limited vision and narrowness of the roadway. Currently there are numerous creek crossings along the road varying from steel girder bridges with timber decks (over Jumbo Creek mainstem) to steel pipe culverts for smaller tributary crossings.

The proposed resort development will create added traffic volumes along these roadways, and therefore some improvements will be required to provide a safe and functional facility for all users. The preferred road alignment and target design speed is 50 kph with the requirements of a subdivision road as defined in Section 14 of the Ministry of Transportation Highway Design Manual for Rural Local Undivided Roads (see Appendix 5-A Route Study of Volume 5 of the Master Plan, McElhanney Drawings No. 1-5). Although it is possible to use the existing bridges in the early stages of development, the bridges will ultimately be eliminated in the final road alignment. A number of new culverts and upgrades to existing ones will be required during the early stages of development.

To minimize impacts to fish habitat, JGR followed the design, installation and protection measures for stream crossing outlined in the “Forest Practice Code - Fish Stream Crossing Guidebook” (March 2002).

The preferred road alignment includes the elimination of all bridge crossings except for bridge N2-181 near the resort, which will be utilized to access the other side of the drainage prior to entering the resort development area. It will also include 26 Open Bottom Structures (OBS), and 10 Closed Bottom Structures (CBS). Based on the above structure types and information on fish bearing sections of Jumbo Creek and tributaries, ENKON recommends the following crossing structures:

- For fish bearing and non-fish bearing sections of Jumbo Creek mainstem, bridges will be used for all crossing structures.

Part H: Canadian Environmental Assessment Act Issues

- All road crossings of Jumbo Creek tributaries with <20% gradient (assumed to be fish bearing) will be designed as open bottom structures. There are 26 proposed open bottom crossings of fish bearing tributaries.
- All road crossings of Jumbo Creek tributaries with >20% gradient (assumed to be non-fish bearing) will be designed on a site-specific basis and follow the recommendations of the Forest Practice Code (likely closed bottom structures). There are 10 proposed closed bottom crossings of non-fish bearing tributaries.
- Final design of all crossing structures will follow the Forest Practise Code and the Department of Fisheries and Oceans hierarchy of crossing types.

Since the proposed stream crossings follow the recommendations of the “Forest Practice Code - Fish Stream Crossing Guidebook” (March 2002) a Section 35(2) Authorization for the harmful alteration, disruption or destruction (HADD) of fish habitat should not be required from the Department of Fisheries and Oceans.

5. The environmental management plan includes provision for environmental monitoring during construction. Some environmental monitoring also will take place during operation. The following provides draft terms of reference for the Environmental Monitor for the construction phase.

The objectives of the environmental monitoring program are to:

- ensure proper development and implementation of the environmental management plan and other mitigation measures;
- assess the performance of environmental controls and mitigation measures;
- ensure that the contractor corrects any mitigation measures that are not functioning acceptably; and
- ensure that water quality, fish and wildlife in the Jumbo Glacier Alpine Resort area are protected throughout the construction program.

The Environmental Monitor will be an independent third party who will have the authority to stop construction activities temporarily if unacceptable environmental events occur or appear likely to occur. The Environmental Monitor will be available when stream crossing work is done. He/she will make periodic inspections during other construction activities to ensure that the construction contractor is following all aspects of the Environmental Management Plan. The Environmental Monitor will report immediately to the appropriate agencies any significant environmental events or construction deviations. He/she also will make regular (quarterly) reports on progress with construction, any other (minor) environmental events or impacts that occurred and actions taken to address these events or impacts.

The Environmental Monitor’s specific responsibilities will include the following:

- meeting periodically with the contract project manager to discuss work requirements, compliance issues, and other environmental matters;
- conducting inspections of all sediment/silt control works;
- inspecting other aspects of the work area and equipment for general housekeeping, dust control and compliance with the spill prevention plan;

- monitoring all instream works;
- conducting fish salvages; and
- monitoring receiving water quality during activities that could cause increased total suspended solids (TSS) or turbidity in Jumbo Creek or other watercourses.
- The Environmental Monitor will also be onsite during all instream construction activities to ensure that operators and crew comply with the Environmental Management Plan and all applicable regulations. The Environmental Monitor will:
 - arrange for and/or participate in fish salvage operations, as required;
 - measure turbidity upstream and downstream of the work site periodically (at least four times per day or as deemed necessary depending upon the types of instream activities);
 - measure pH upstream and downstream of the work site periodically during any concrete works; and
 - collect total suspended solids samples from sedimentation ponds and upstream and downstream locations on receiving waters during periods of runoff and major storm events.

6. Potential impacts to fish habitat from residential and commercial development have been minimized during the planning process and adherence to the recommended 30m “*Streamside Protection and Enhancement Areas*” as outlined in the *Fish Protection Act-Streamside Protection Regulations* (January 2001). As a result, there are no direct instream or riparian fish habitat impacts associated with the resort base development. Since there are no fish habitat impacts associated with the resort base development, no further mitigation measures are proposed.

H.2 Cumulative Environmental Effects

EA Issues Profile

Topic

Potential cumulative environmental effects of project development.

Issues

- Currently conditional nature of federal reporting requirements, awaiting determination of whether approval authorisation will be required under section 35(2) of federal *Fisheries Act*.
- Basic principles of cumulative impact assessments.
- Conditional reporting requirements with respect to cumulative effects on fish and wildlife resources, and water quantity and quality.

Relevant Project Components

- All on-site and off-site project components within Toby/Jumbo

drainage.

Lead Agencies

- Fisheries and Oceans Canada (DFO)

Comments also Received From

- Ministry of Environment, Lands and Parks (MELP) – BC Environment and Lands

Relevant Public Comments on Application and Draft Specifications

- Proposal extends into Farnham and Horsethief Creeks. There is need for environmental impact study which encompasses entire surrounding area, not just Jumbo Creek. (10b)
- Draft specs omitted cumulative impacts on both flora and fauna, and on existing low-impact tourism businesses.
- Federal EA should be done which would study cumulative effects regionally on wildlife such as grizzly bears and Bull trout.
- Draft specs should include cumulative long-term impact of automobile emissions and salt use on roads and glaciers.

Relevant Proponent Comments on Draft Specifications and Specifications Feedback

- Proponent is willing to develop assessment of cumulative effects in consultation with DFO.

Related Issues and Relevant Specifications

- Re. other water quantity and quality issues, see sections D.1.B and D and D.2.A.
- Re. other fish and wildlife resource issues, see sections D.3, E.5.F, E.7.K and H.1.

Additional EA Reporting Requirements?

Yes (conditional specs only) – see section H.2;

Evaluation

Policy Context

Section 16(1)(a) of *CEAA* requires consideration of cumulative environmental effects when *CEAA* is triggered. The objectives of the cumulative effects assessment is to include a consideration of any cumulative environmental effects which are likely to result from the project in combination with other projects or activities which have been, or will be, carried out. Accordingly, an assessment of cumulative environmental effects is bound by the following definition from the *CEAA* legislation: "...*The effect on the environment which results from effects of a project when combined with those of other past, existing and imminent projects and activities. These may occur over a certain period of time and distance...*" (*Reference Guide for the Canadian Environmental Assessment Act - Addressing Cumulative Environmental Effects* (published by FEARO, November 1994).

In addition, 'environmental effect' is defined as:

- Any change which the project may cause in the environment, including any effect of any such change on health and socio-economic conditions, on physical and cultural heritage, on the current use of lands and resources for traditional purposes by Aboriginal persons, or on any structure, site or thing that is of historical, archaeological, palaeontological or architectural significance; and
- Any change to the project that may be caused by the environment, whether any such change occurs within or outside Canada.

Basic Principles

Some basic concepts for assessing cumulative environmental effects of the project are as follows:

- environmental effects of the project can combine with, and interact with, the effects of other projects and activities, within a defined area, to produce an aggregate effect;
- assessing cumulative environmental effects of the project requires that its effects be considered in combination with the effects of current and past projects and activities, as well as the effects of proposed projects and activities which are imminent enough that they are currently subject to a government approval process (e.g. activities for which applications for permits or approvals have been submitted, or for which plans are actively being developed, etc.);
- the environmental effects of uncertain or hypothetical projects or activities need not be considered;

Part H: Canadian Environmental Assessment Act Issues

- the only effects of other projects and activities which need to be considered for cumulative effects assessment are those which combine with, or interact with, the environmental effects of the project;
- only likely cumulative effects need to be considered;
- cumulative effects should be considered throughout the area in which project-related activities occur, and should encompass all phases of the project; and
- cumulative effects may occur indirectly, may be delayed or may occur at a distance from a project-specific source.

The cumulative effects assessment need not be performed in as much detail as the assessment of direct project impacts. It is appreciated that much of the information available for cumulative effects assessment will be qualitative, rather than quantitative. The assessment should be based primarily on available information, and on the use of the best professional knowledge and judgement which is feasible and reasonable in the circumstances. Moreover, *CEAA* guidelines recommend that a federal review of cumulative effects should examine only projects which are sufficiently imminent that they are currently subject to a government approval process (e.g. projects for which applications for permits and approvals are actively being processed). It is not considered either fair or realistic to incorporate into a cumulative effects assessment projects which are hypothetical or otherwise reasonably uncertain.

The proponent is strongly advised to consult with government agencies while developing the framework for, and undertaking, the cumulative effects assessment work, and to determine whether relevant information may already be available through government sources. The proponent should also consult publications such as the 1994 FEARO publication which is cited above, for guidance on the approach to cumulative effects assessment.

DFO suggests that a cumulative environmental effects (CEE) assessment utilise a format which incorporates the following steps:

- define the scope of the CEE assessment by identifying the direct environmental effects which are relevant to the assessment;
- identify which other projects have environmental effects to which the effects of the Jumbo Glacier project could contribute incrementally; and
- then determine the geographic and temporal scope of the CEE assessment.

Following the scoping stage:

- analyse the scale of the CEEs to determine the need for mitigation measures;
- list the mitigation measures which could be implemented to offset the CEEs;
- determine the significance of the residual CEEs, taking into account the mitigation measures; and
- define a post-construction ongoing follow-up monitoring program for the life of the project, to assess the accuracy of the CEE assessment..

The project committee notes that MELP (BC Environment and Lands) has identified reporting requirements with respect to cumulative effects on wildlife resources - see sections D.3(C) and (F), above. If *CEAA* is triggered, a combined study program is recommended which will meet both federal and provincial requirements.

The project committee also notes that government agencies will assess the significance of the potential effects in consultation with the proponent, and taking into account any mitigation measures proposed by the proponent. ***Thus, the proponent is not required to assess the significance of the identified effects entirely by itself.***

Conditional Project Report Specifications – H2

Should *CEAA* review be triggered for this project, the proponent must provide the following cumulative effects reporting with respect to fish and wildlife resources in the project report:

1. To the extent that the information exists and is available, or has been collected for the purposes of this project, identify fish and wildlife habitat and ecosystems which may be potentially affected by the Jumbo Glacier project *and* which are also affected by other projects and activities noted below (see specification #10).

2. Using habitat suitability/capability mapping and available information with respect to the ranges/locations of blue-listed and red-listed flora and fauna within the footprint of the proposed resort and its infrastructure (where the proponent either has already generated this information for its application or is required to generate it for its project report), estimate the following:

- cumulative displacement of animals from habitat;
- mortality risk assessment; and
- potential cumulative fragmentation of habitats and populations.

3. Assess the identified cumulative effects, and, where any are identified, propose measures to prevent or mitigate them, and any necessary construction and/or post-

Part H: Canadian Environmental Assessment Act Issues

construction monitoring programs intended to track these impacts and the actual degree of success of mitigation measures, once they are implemented.

Should *CEAA* review be triggered for this project, the proponent must provide the following cumulative effects reporting with respect to water quality and quantity in the project report:

4. Identify any contaminant loadings of streams and other water bodies which may be affected by the project and which are also affected by the other projects and activities listed below (see specification #9).
5. Estimate the aggregate loadings from this project and the other projects or activities identified in specification #10, below, and with this information, assess the cumulative impacts on water quality and quantity.
6. Use established water quality objectives (if any) for the subject water bodies as a context for these assessments.
7. Assess any identified cumulative effects and, where any are identified, propose measures to prevent or mitigate them, and any necessary construction and/or post-construction monitoring programs intended to track these impacts and the actual degree of success of mitigation measures, once implemented.

If *CEAA* review is triggered, then for the project report:

8. The cumulative effects assessment must encompass the following components of the Jumbo Glacier project:

- the resort development, including all on-site facilities (village, lodge, ski lifts and runs, single family lots, etc.); and
- all off-site facilities, including, in particular, the access road, taking account of any relocation/redesign required as part of road upgrading, and also the transmission line corridor.

9. The cumulative effects assessment must embrace the following water bodies and drainages:

- Jumbo Creek;
- Toby Creek; and
- other drainages as determined in discussion with the Responsible Authority.

10. The cumulative effects assessment must also take into consideration known past and present projects (and also any future projects which can be reliably anticipated, and which are not merely hypothetical or uncertain), where they may affect the same area as the ski resort and its ancillary facilities, and the above-listed water bodies and watershed drainages, including the following projects and activities:

- the Panorama ski resort, including current expansion plans;
- past and present forestry activities, and any future activity for which there are firm plans;

- past and present mining and mineral exploration activities, and any future exploration activity for which government has received applications for statutory approvals;
- the local heli-ski operations of R.K. Heli-Ski Panorama Inc.;
- tourist lodges/facilities and operators; and
- existing outdoor recreational activities, including hunting and fishing.

11. Within the framework outlined above, the proponent must identify potential cumulative effects and, if any such effects are anticipated, identify measures to prevent or mitigate them.

Note - Should CEAA be triggered, the proponent is strongly advised to consult with the Responsible Authority at the earliest opportunity to finalise terms of reference for all of the reporting requirements listed in CEAA, section 16(1), and in particular, respecting cumulative effects.

RESPONSE – H.2

As indicated above in Project Report Specification H.1 #6 “Potential impacts to fish habitat from residential and commercial development have been minimized during the planning process and adherence to the recommended 30m “*Streamside Protection and Enhancement Areas*” as outlined in the *Fish Protection Act-Streamside Protection Regulations* (January 2001). As a result, there are no direct instream or riparian fish habitat impacts associated with the resort base development.” Thus, since there are no anticipated direct impacts to instream or riparian fish habitat, an authorization under section 35(2) of the federal Fisheries Act for HADD is not required and therefore a Cumulative Environmental Effects Report under CEAA report review is not triggered. JGR is prepared to submit for review the bridge replacement design and installation technique prior to any work being commenced. Should the technique not be approved, then the project would be delayed at that phase until when a satisfactory Cumulative Effects Report would be submitted or a difference approvable technique would be submitted by JGR.

H.3 Environmental Effects of Accidents and Malfunctions

EA Issues Profile

Topic

Potential environmental impacts of accidents and malfunctions.

Issues

- Currently conditional federal reporting requirements, awaiting determination whether authorisation will be required under section 35(2) of federal *Fisheries Act*.
- Conditional reporting requirements with respect to identification of

Part H: Canadian Environmental Assessment Act Issues

potential types of accidents and malfunctions, assessment of their environmental effects, and development of mitigation measures.

- Value of contingency planning and risk analysis

Relevant Project Components

- All on-site and off-site project components within Toby/Jumbo drainage.

Lead Agencies

- Fisheries and Oceans Canada (DFO)

Comments also Received From

- Ministry of Environment, Lands and Parks (MELP) – BC Environment and Lands

Related Issues and Relevant Specifications

- Re. solid waste disposal issues, see section D.1.A.
- Re. liquid waste disposal issues, see section D.1.B.
- Re. special waste and fuel storage issues, see section D.1.C.
- Re. water and air quality issues, see sections D.1.D and E.
- Re. access road issues, see various parts of section E.6.

Additional EA Reporting Requirements?

Yes (conditional specs only) – see section H.3(b);

Evaluation

Background

Section 16(1)(a) of *CEAA* requires an assessment of:

- the environmental effects of any potential malfunctions or accidents which may occur in connection with the project;
- the significance of these effects;
- technically and economically feasible measures which would mitigate any significant adverse environmental effects of the

project; and

- contingency plans for managing the environmental effects of any potential accidents or malfunctions in connection with the project.

Contingency planning is intended to create an ability to provide an effective response to any kind of project-related accident or system failure which poses a threat to human life and health, the environment and property, in order to prevent or mitigate any adverse effects

Suggested Approach

The project report should include details of the contingency planning proposed to address identified problem incidents. Risk analysis is a key initial step in contingency planning, where risk is a function of the likelihood of an incident and the consequence of the incident. The project report should identify any potential problems which may be associated with accidents or malfunctions during the construction and operation of all project components, and the risk to the receiving environment, to human health and safety, and to property, which such events might pose. The project report should include plans which will meaningfully respond to such incidents. Response measures need to be practical and realistic, and there should be enough trained personnel available at any given time to implement the necessary measures.

Federal agencies suggest to proponents that their contingency plans should be consistent with the requirements of CSA standard practice CAN/CSA -Z731-M91 - *Emergency Planning for Industry*. This CSA standard provides sound guidance for contingency planning. Other similar guidelines are also available, and may be suitable

Conditional Project Report Specifications – H3

1. If *CEAA* review is triggered for this project, the proponent, in its project report, must include an assessment of the environmental effects of any potential malfunctions or accidents which may occur in connection with the project, including (but not limited to) those specifically with respect to:

- the transport of goods which are potentially harmful to the environment (e.g. petroleum products) to and from the resort by road;
- waste management at the resort (including solid and liquid waste disposal); and
- any other project component or system which has the potential, through accident or malfunction, to adversely affect the natural environment.

2. If potential environmental effects are identified under specification #1, mitigation measures must be proposed in the project report.

RESPONSE – H.3

A mountain resort and related activities are not an unusually hazardous industry and there is a large body of experience that proves that normally required practices under existing legislation and regulations create the required safety. Volume 5: Infrastructure and Volume 7: Approval Process and Governance of the Master Plan indicate the precautions that will be taken to avoid and to mitigate the effects of any accidents. The resort will control the use and the delivery of petroleum products and the handling of solid and liquid waste carefully according to prescribed practices. The Master Development Agreement requires the developer/operator to follow provincial and federal requirements, which, if required, may become part of the recitals in the agreement. The Province always maintains the rights and the controls of the landlord over the development and its management.

Substances that may be transported to Jumbo Glacier Resort that could pose a threat to the environment include:

- concrete;
- paints and sealants;
- fuels and oils;
- explosives for use during construction of the resort and for avalanche control, and
- cleaning products.

A more detailed list will be provided during the detailed design phase of the project. Hazardous materials will be itemized in the resort's Contingency Plan.

The main hazards to the environment related to the transport of the above substances to and from the resort by road are:

- Chemical Spill/Release
- Fire
- Explosion
- Transport of Dangerous Goods

Mitigation Measures

Chemical Spill/Release

Spill prevention will be the primary mechanism of mitigating potential spills of chemicals during transport to and from the Jumbo Glacier Resort. Spill prevention measures include:

- use of certified disposal and transportation services;
- proper labeling of materials;
- inspection of containers prior to and after transport; and
- selection of safest means of transport and routing.

In BC, details for transporting special wastes are prescribed in the *BC Waste Management Act*

and the associated Special Waste Regulation as well as in the *Transportation of Dangerous Goods Act* and Regulations.

Spill kits will be kept and maintained on vehicles transporting hazardous goods.

A Spill Contingency Plan will form part of the resort Contingency Plan and is described in the Section 28 of the Environmental Management Plan.

Fire and/or Explosion

In the event of a fire and/or explosion of a vehicle transporting materials to and from the resort, the discoverer of the fire will contact relevant emergency agencies.

Contingency Plan

An overall Contingency Plan for accidents, malfunctions and other emergencies during operation of the Jumbo Glacier Resort will be drafted at the detailed design phase of the project. The plan will be prepared according to the following standards for emergency planning:

Canada's National Standard titled, *Emergency Planning for Industry* (CAN/CSA-Z73 I -M91), and

the international Incident Command System (ICS) as per the standard for site (Command Post) level of the *BC Emergency Response Management System*

The plan will target environmental risks from accidents/malfunctions the following project activities/facilities:

- transport of goods;
- wastewater treatment plant operation;
- chemical product storage;
- waste storage; and
- pollution control devices.

Jumbo Glacier Resort will also pursue endorsement of the *Partnerships Towards Safer Communities* by the Canadian Association of Fire Chiefs. This is designed to foster close working relationships between industry and local communities to define risk, to mitigate impacts, and to understand response roles and capabilities.

The only waste management facility that will be located within the resort boundary is a tertiary wastewater treatment plant (WWTP). The treatment plant will accept domestic waste only and all hazardous and special wastes will be transported from the resort to appropriate storage facilities.

The potential hazards (i.e., accidents and/or malfunctions) at this facility that could result in environmental impacts, include the following categories:

- loss of utilities, including electricity and water

- major process disruption/loss of plant control
- fire and/or explosion
- hazardous material spill
- natural phenomena
- seismic event
- high wind
- range fire

Mitigation Measures

Loss of Utilities

A case-by-case evaluation is required for each event to determine loss of utility impacts. When a loss of utility impact is determined, actions will be taken to ensure dangerous and/or mixed wastewater (WWTP) is being properly managed, to the extent possible given event circumstances. As necessary, operations will be ceased and appropriate actions will be taken until the utility is restored. In addition, the following agencies will be contacted:

- Provincial Emergency Program;
- Fisheries and Oceans;
- Health Canada;
- Environment Canada;
- Local Health Agencies; and
- Local Government Agencies.

Loss of Electrical Power

Should there be a partial or total loss of electrical power, automatic measures ensure that the plants are in a safe operation configuration (i.e., a shutdown to minimal operations that will prevent releases and prevent unnecessary damage to the equipment). There will be an emergency power system at the WWTP, which will be described at the detailed design phase.

Loss of Water

Upon loss of the raw water system, operations would be restricted. Upon loss of potable water, chemical operations would be terminated until safety showers and eyewash stations are available. Upon loss of fire suppression system, the WWTP would be placed in a safe configuration, and corrective actions would be implemented.

Major Process Disruption/Loss of Plant Control

If there is a major process disruption, the plants' emergency directors will be notified while an attempt is made to return the system to service. If it is determined that an operational emergency is in progress, the plants' emergency personnel will initiate proactive actions and begin notifying the relevant local, provincial and federal agencies. The system condition will be

assessed and mitigation/corrective actions will be implemented as appropriate.

Fires and/or Explosion

In the event of a fire, the discoverer will activate a fire alarm and call emergency services. Automatic initiation of a fire alarm (through smoke detectors or sprinkler systems) will also occur. Activation of a fire alarm automatically signals the resort fire department.

Hazardous Material, Dangerous and/or Mixed Waste Spill

The following methods are recommended to prevent and control potential spills:

- Make sure equipment is working properly.
- Routinely inspect for leaks and other conditions that could lead to discharges of chemicals or contact with stormwater.
- Equip any areas where vehicle fuels or other potentially deleterious substances are stored with impervious containment berms. If fuel tanks larger than 250 L are present within a berm, the bermed area will have a holding capacity equal to 125% of the capacity of the largest tank.
- Keep potentially deleterious substances such as fuels within a locked storage area.
- Activities that carry a risk of material spills will take place within the bermed section of the staging area. These activities include mixing concrete or other materials, any vehicle fuelling and other maintenance that is done on site.
- Instruct personnel regarding acceptable practices for handling potentially deleterious substances, maintaining equipment and washing construction vehicles and equipment.
- Spill kits will be distributed and maintained throughout the WWTP. In addition, a Spill Contingency Plan will be prepared and be part of the resort Contingency Plan.

Natural Phenomena

Depending on the severity of the event, the plants' emergency directors review plant emergency response procedures and categorize the event. If necessary, emergency procedures will be activated.

Seismic Event

The plants' emergency personnel's primary role in a seismic event is to coordinate the initial response to injuries, fires, and fire hazards and to contain or control hazardous material releases.

High Winds

Upon notification of impending high winds, plant emergency personnel will take steps necessary to secure all outdoor waste and hazardous material containers and storage locations.

Range Fire

Responses to range fires are handled by preventative measures (i.e., keeping hazardous waste material and waste accumulation areas free of combustible materials). If a range fire breaches the plants' boundary, the response described in Fire and Explosion (above) will be implemented.

Contingency Plan

As discussed above, the Jumbo Glacier Resort Contingency Plan will be prepared at the detailed design phase and will include specific contingency plans for the WWTP.

Project Construction

Prior to construction of the Jumbo Glacier Resort, an Environmental Management Plan will be prepared by the design build contractor for review by applicable agencies. The EMP will provide detailed measures to avoid or minimize potential impacts to the environment from construction activities and operation. Components of the EMP include:

- Erosion and Sediment Control Plan
- Stormwater Management Plan
- Non-point Source Waste Discharge Control Plan
- Air Quality Protection Plan
- Spill Contingency Plan
- Terms of Reference for Environmental Monitoring
- Details of these plans can be found in Appendix 3-C Environmental Management Plans in Volume 3 of this report.
- any other project component or system, which has the potential, through accident or malfunction, to adversely, affect the natural environment.

Potential accidents/malfunctions of all project components are discussed above.