

# Full Quality of Life Assessment of the Proposed Jumbo Glacier Resort Project

Quality of Life Assessment Document Completed by



the Foundation for Democratic Advancement  
(October, 2009)

The Foundation for Democratic Advancement is a non-partisan advocate for the public in issues of democracy and elections. ([www.democracychange.com](http://www.democracychange.com))

**Purpose of the Quality of Life Assessment:** To determine a non-partisan, objective assessment of the quality of life impact of the Jumbo Glacier Resort Project on relevant population groups.

This determination is an independent perspective to give the residents of the East Kootenays and relevant organizations and individuals an informed, non-partisan, objective perspective.

The views in this non-partisan Quality of Life Assessment are the views of the FDA and the experts and relevant persons involved in the Assessment. Also, the Determination is an example of using quality of life assessments to assist in making development decisions. Presently, the BC government's development process does not include formalized quality of life assessments.

Also, the FDA and its members are in no way affiliated with any individuals or organizations affiliated, associated, or connected to the Jumbo Glacier Resort Project.

The Evaluation represents an assessment of the Jumbo Glacier Resort Project based on objectivity, transparency, and non-partisanship.

### **Key Definitions:**

#### **Jumbo Glacier Resort Project:**

Resort site in Jumbo Creek Valley is 20 km (12.5 miles) away from Panorama and 38 km (24 miles) away from Invermere.

The Resort site is on 104 hectares.

a year-round facility focusing on sightseeing from the top of glaciers and a different kind of skiing in the mountains. "The

proposed land use will add skiing in designated locations, tennis and a highly compact resort base, which will comprise hotels, ancillary commercial facilities, vacation apartments, townhouses, and single family chalets.”

A resort of 5,502 tourist beds plus 750 staff beds is planned for the ultimate expansion, which will include a network of some twenty lifts. (Total 6,252 bed units) (Source: Master Plan)

The resort on completion will consist of 143 single-family chalets, 240 townhouse units, 974 condo/hotel units, and 369 hotel rooms.

An ultimate capacity of approximately 6,250 beds, including 750 beds for staff accommodation. Bed unit occupancy is anticipated to be in accordance with industry standards, in the 30 to 50 percent range for bed units and in the 50 to 60 percent range for dwelling units. For occupancy considerations it is important to realize the difference between dwelling units (rooms, suites, etc.) and bed units (pillows).

Total tourist bed base is designed for 5,500 beds at build out. At 40% occupancy this would translate into 2,200 overnight guests, which is a reasonable winter target. This is a target design in a similar range to the projected size of [Panorama](#) and [Silver Star](#). Average number of skiers at build out is anticipated to be in the 2,000/3,000 persons/ day range in high season.

The Resort will offer lift-serviced access to Jumbo, Farnham and Commander Glaciers as well as Glacier Dome

Study on Grizzly Bear populations in the Central Purcells, commissioned jointly with the Environmental Assessment Office, confirms the Proponents' findings through the previous years of environmental studies. Of the 33 individual Grizzlies identified from hair samples collected in the 1998 "Grizzly Bear Population Survey in the Central Purcell Mountains", covering an area of

4,000 square kilometers, **only 2 Grizzly Bear hair samples were collected in the Jumbo Valley, versus 31 in the other drainages.** Grizzly Bears were not found within 1 kilometer of main valley bottom roads, even though 26% of the capture sites were located near these roads. The proposed resort is at the end of the existing road.

Note the Jumbo Glacier Resort Project is premised on claimed sustainability, and yet quality of life surpasses sustainability---a project can be sustainable while at the same time harmful to quality of life. (Source: FDA)

### **Jumbo Creek Valley:**

**The Valley is not pristine.** It has had substantial human activity including logging, mining, exploration, skiing, snowmobiling, hiking and hunting for over five decades. The resort is proposed for the site that was previously utilized for a sawmill.

Sure the Jumbo Creek Valley is not pristine... but at the same time it is not devastated. (Source: FDA)

### **Methodology**

Fundamental evaluation questions for the Jumbo Glacier Resort Project:

1. What are the impacts of the Jumbo Resort at build-out on quality of life of the relevant population groups?

Viz., Does the Jumbo Resort at build-out add or detract from the overall quality of life, and to what degree?

Are there any relevant population groups that are severely impacted?

## **Sections for Evaluation:**

### Pre-Resort Recreationalists:

A. Protection of Environment, including impact on wildlife (quality of wilderness experience of the Jumbo Creek Valley and surrounding drainages)

B. Access to Outdoors Recreation

C. Visual Impact of Resort

D. Overall Impact (Noise, Crime, Congestion, and Pollution)

E. Economic Impact

### Invermere and Surrounding Areas:

F. Air quality

G. Water quality

H. Economic Impact

I. Overall Impact from (Noise, Crime, Congestion, Pollution)

## **Population groups to be assessed:**

1. Pre-Resort Tourists and Recreationalists for the entire Jumbo Creek Valley and surrounding drainages: applies to Sections A, B, D, and E. The re-resort tourists and recreationalists are made up of hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on. The total annual population of pre-resort tourists and

recreationalists is estimated at 4,756. Note the figure was attained from review of occupancy at the Jumbo Pass Cabin, consultation with the Columbian Valley Chamber of Commerce (Visitor Center), and various groups which frequent the Jumbo Creek Valley including skiers and tourists from Panorama and local and Albertan ATV users at Farnham Creek. There are no statistics on the actual number of people who access Jumbo Creek Valley and surrounding drainages.

Statistics on public access of the Jumbo Pass Cabin and Jumbo Pass area:

1994	227	user days - from sign in records - *includes dayuse
1995	389	" "
1996	320	" "
1997	469	" "
1998	794	" "
1999	193	" "
2000	349	" "
2001	462	" "
2002	430	" "
2003	~missing data~	
2004	703	" "
2005	399	paid & reserved user nights **DOES NOT include day use
2006	736	" "
2007	822	" "
2008	730	" "

Russ Hendry – CVHut Society

(These numbers do not include day hikers, climbers, mountaineers, fisherman, sightseers, and any of these groups and others who access the other nearby drainages and passes like the Lake of the

Hanging Glacier. Also, the numbers from 1994 to 2004 do not include people who didn't sign in when entering the Jumbo Pass)

Calculation:

Summer months: June to September (122 days) estimated at 35 persons per day which equates to 4,270 people annually.

Winter months: October to May (243 days) estimated at 2 persons per day which equates to 486 annually.

Total annual population of pre-resort tourists and recreationalists who access Jumbo Creek Valley and/or surrounding drainages: 4,756.

2. Invermere and surrounding areas: The estimated population of Invermere is approximately 3,300 (City of Invermere) with another 542 from Toby Benches, Panorama, and Rushmere. (2006 Canadian Census). Total population of Invermere and surrounding areas: 3,842

3. Local First Nations: The local first nation is the Shuswap Lake Band. According the 2006 Census, the Band has a total population of 169. Note, the local First Nations have not been included in this Survey because they have failed to respond to Survey questions.

4. Resort at build-out (after 20 years): The Developer's estimated Resort Population is 560,873. (Total number of visitors in one year including winter and summer.) Note, the Resort population in this Survey has been reduced by 70% to account for overestimation by the Developer, which is typical of Development estimates. The modified Resort Population is 168,262.

Delphi Technique:

Individuals and groups from the population groups will be surveyed on the relevant sections for evaluation.

A feedback process will be implemented to allow the surveyed to review the responses of all other participants, and then have opportunity to reassess their initial survey response.

There will be three rounds of feedback. The purpose of the feedback process is not to reach consensus, but to ensure participants make the most informed response while maintaining their individuality.

The survey responses will be kept anonymous amongst the participants, in order to reduce noise between participants.

Because the Resort population will be given 80% for quality of life, on the presumption that the quality of life experience of the Resort recreationalists will be high but not perfect. (For a more detailed explanation, please see Modifications to the Survey Result due to further quality of life impacts section.)

**Weighting:**

The nine sections for evaluation will be weighted equally, 0 to 10. Moreover, all participants will be given equal weight.

**Information sources:** Jumbo Glacier Resort Master Plan, Invermere Chamber of Commerce, Visual Impact Assessment on the Glacier Resort, Wildsight, numerous reports and assessments on the impacts of the Jumbo Glacier resort, and various individuals and groups which use the Jumbo Valley Creek.

## **Participating Organizations and Individuals:**

Alpine Club of Canada  
School of Skiing and Snowboarding (Panorama, BC)  
Findlay Creek Outfitters  
Toby Creek Adventures  
Jumbo Wild Conservation Society (Bob Campsall—also Councilor for City of Invermere)  
Nolan Radd (Jumbo Valley hunter and trapper)  
West Kootenay EcoSociety  
Wildsight—Cranbrook/Kimberley Branch  
Norm MacDonald, MLA Columbian River-Revelstoke  
Spring Hawes, Councilor for the City of Invermere, BC  
Kootenay Mountaineering Club  
West Kootenay Naturalists  
UBC Varsity Outdoors Club  
Alberta Whitewater Association  
Ben Singleton-Polster, UBC Varsity Outdoors Club  
Eva Boehringer, Member of the Climbers' Access Society of BC

Note, Mr. Gerry Taft, the current Mayor of Invermere and Chief Paul Sam of the Shuswap Indian Band were invited to participate in this survey, but failed to respond to the survey questions despite several reminders.

Moreover, the BC Liberal government through the Ministry of Tourism, declined to support or participate in this survey.

## **Chief Administrator:**

Mr. Stephen Garvey, BA, MA, Chief Director of the FDA,

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## A. Pre-Resort Recreationalists:

A. Protection of Environment including wildlife (quality of wilderness experience of the Jumbo Creek Valley and surrounding drainages)

### FDA Main Research:

The Jumbo Creek valley has seen almost a century of industrial use. 85% of the valley has been harvested and a major mine operated at its entrance until 1991. (Source: Developer of Resort)

The Jumbo Creek Valley is not pristine. It has had substantial human activity including logging, mining, exploration, skiing, snowmobiling, hiking and hunting for over five decades. The resort is proposed for the site that was previously utilized for a sawmill. (Source: Developer of Resort)

Based on aerial surveys and capture sites, only 2 grizzlies of 33 were located in Jumbo Creek Valley. The Jumbo Creek Valley is not prime grizzly bear breeding and denning habitat. (Source: Developer of Resort)

The average annual daily traffic for the Jumbo Glacier Resort access road has been estimated to be 943 trips at build-out. Wildlife impacts due to road volume has been considered through mitigation/prevention measures. (Source: Master Plan)

Grizzly bear numbers: Numbers from a 2007 study published by the Ministry of Environment indicate that grizzly populations in the Jumbo vicinity have declined by more than 40 per cent from numbers the proponent cited in the original 2004 EA document. Grizzly biologists say this significant decline renders the planned mitigation of the resort for grizzly bears invalid and insufficient.

The author of a Ministry-funded 2007 grizzly census report in the Purcells wrote a letter to the Ministers in June, 2007. The summary paragraph reads:

“In summary, our results indicate that there are two new pieces of information that should be integrated into the Jumbo resort decision.

First, the grizzly bear population in the Central Purcell GBPU is much lower than thought and is relatively close to the “threatened” population threshold. Second, because of the lower population size, the management actions that were available for mitigation of the Jumbo resort will now be required to “recover” these populations without the impacts of the resort.”

(Source: Wildsight)

### Grizzly Bear Management Plan

Mitigation measures:

60% reduction in the size of central resort area; removal of project components on the west side of Jumbo Valley and in lower Jumbo Creek

Moderate risk of human-caused mortality to grizzly bears (WLAP)

Existing level of human activity reduces effectiveness of Jumbo Creek habitat.

Without mitigation, resort will have significant impacts on grizzlies, in terms of mortality and habitat fragmentation.

Management Plan can substantially reduce impact.

Proposed mitigation plan does not include wholesale restrictions to motorized access in adjacent drainages and that the proposed Management Plan will be adequate to mitigate impacts. (Source: Mast Plan, Developer)

Management Plan: monitoring of impact, genetic testing, Bear Smart Community, Grizzly Bear Management Committee; garbage management, outdoor recreation management, adaptive management)

Potential increased backcountry activity—Resort will have one trail leading from resort base to the base of Glacier Dome and from there to Teahouse on top of Glacier Mountain (also accessed by gondola)

Backcountry areas may be restricted to permit system or re-evaluation of commercial uses.

According to the Cumulative Effects Assessment that mitigating measures direct at achieving no-net-impact should be applied to Jumbo watershed as well as neighboring watersheds.

Resort will have impacts on other wildlife—mountain goats, mule deer, white-tailed deer, moose, elk, black bears, large carnivores, furbearers, small mammals, waterfowl, non-migrating birds.

Some of the mitigation measures:

30meter Streamside protection and enhancement areas

20-30meter riparian zone between streams and ski lifts and runs

Various measures to protect wildlife:

Restrict helicopter activity

Avoid disturbance in winter ranges

Protect established animal licks from human activity like at the top of Horsethief Creek.

Reduce density of roads in Jumbo Creek

Logging roads not part of Resort should be deactivated and re-vegetated

Prevent facility development within 100meters of nest trees

Vegetation Management Plan, Tree Protection Plan, Sensitive Ecosystem Protection Plan

Yes the Jumbo Creek Valley is not pristine... but at the same time it is not devastated. (Source: FDA research)

## Survey Results:

1. What is the overall environmental impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in terms of quality of wilderness experience?

### Scores:

0/10, 9/10, 0/10, 2/10, 5/10, 0/10, 1/10, 0/10, 0/10, 0/10, 1/10,  
1/10, 0/10, 1/10

Total: 20/140 14.3% 1.4/10 (Scores less than 5 have a negative quality of life impact; the lower the score, the more negative the quality of life impact)

### Main Rational for Score:

The Jumbo Resort will have irreversible, negative impact on the natural environment and wilderness experience.

The inaccurate wildlife assessments by the developer weaken the developer's credibility.

There will be a spillover of negative impacts on the surrounding drainages.

There is a threat of secondary commercial development of the Jumbo Resort, which will worsen impacts.

Grizzly and black bear cannot co-exist with people; mountain goat will move out of area.

Wildlife and resorts don't mix.

Huge impact in a valley somewhat compromised already.

(Additional 555,000 visits a year.)

Wilderness experience will cease in the Jumbo Creek Valley.

The Jumbo Resort is environmentally sound with minimal impact.

## B. Access to Outdoors Recreation

FDA Main Research:

“...the lands in general vicinity of the proposed development have high recreational potential and are currently used for a variety of activities.” Ministry of Forestry and Parks Staff (Jumbo Master Plan)

The project is designed for year round skiing and sightseeing, with sightseeing as a greater component of summer visitors. (Source: Master Plan)

Total controlled Recreation area for Jumbo Glacier Resort: 5,961 ha

At build-out of Jumbo Resort: 500,411 winter visitors and 60,462 summer visitors

Average winter day visitors per day: 1,101

Average overnight visitors per day: 2,570

Average summer day visitors per day: 885

Average overnight summer visitors per day: 2,936

(Source: Jumbo Master Plan)

The Resort is two to three kilometers to the northeast of the upper Jumbo Creek Valley and will not interfere in anyway with current recreational uses of Jumbo Pass. (Jumbo Master Plan)

The upper Jumbo Creek valley and resort base location are not visible from Jumbo Pass.

The Resort will offer one summer trail from the resort area to the base of the Glacier Dome Gondola, and from there to moraines and glacier of the Glacier Dome and finish at the Glacier Dome Teahouse.

Old logging blocks, older burn areas and most recent heli-ski glade openings are visible as well as the creek's Glacier Dome headwaters to Jumbo Pass.

The top of Glacier Dome, the arrival point of the proposed gondola, is not visible from any point of the Lake of the Hanging Glacier trail or from the trailhead where it reaches the lake. In order to see the top of Glacier Dome it is necessary to reach the south end of the Hanging Glacier Lake.

According to Ministry of Forests mapping, nearly 50% (about 45,700 ha) of the forest cover in the Jumbo Creek Valley is classified as Newly Logged or Young Forest. The proposed resort base site is completely contained within a recently cut area and is situated on an abandoned sawmill site.

“There are 13 existing ski resorts within a 3 hour driving distance from Invermere - none operate at capacity” (Source: Wildsight)

“There is heavy ATV access in Farnham Creek from locals and Albertans (they even have their own route set up, a bridge built, etc), or Macdonald Creek, Glacier Creek, etc. All these will be closed if the Jumbo Glacier Resort Environmental Assessment mitigations are followed (close down public access to surrounding drainages, and deactivate unnecessary roads and trails in surrounding drainages, to mitigate impacts on the central Purcell Grizzly Population).

Hikers to the Lake of the Hanging Glacier will have a ski resort feel, as opposed to the current historical hike and remote wilderness feel. This is a very popular hiking destination in Horsethief Creek (and is within the proposed resort boundaries). Also, the same applies to Commander and Delphine Glaciers.

Also, the Master Plan does not mention climbers attempting the very popular 11,000 footers in the resort area (Jumbo , Karnak, Commander, Peters, Farnham, Delphine, Cleaver, Guardsmen, etc...) - all of which will be destroyed from a remote climbing experience if they are adjacent to a resort.”  
(Source: Dave Quinn, Wildsight—parts of quote edited)

Current usage of Jumbo Creek Valley:

Hiking

Heli-Skiing

Snowmobiling (along the Valley bottom to km 18)

Ski Touring

ATV

Mountaineering

Guide and Outfitting

Hunting

Trapping

Shuswap Indian Band: has numerous trap line interests in Jumbo Creek Valley and in the Earl Grey Pass area. (Source: Master Plan)

Survey Results:

2. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists' access to outdoors recreation?

Scores:

8/10, 0/10, 0/10, 9/10, 0/10, 3/10, 2/10, 0/10, 2/10, 2/10, 0/10, 5/10, 3/10, 5/10

Total: 39/140 27.9% 2.8/10

## Main Rational for Score:

The Jumbo Resort will have access restrictions through the development process and inevitable conflict between backcountry recreationalists and commercial interests.

There is a threat of secondary commercial development of the Jumbo Resort, which will worsen impacts.

The Jumbo Resort will eliminate hunting, trapping, and wildlife watchers. Hikers, climbers, backcountry skiers etc., will face severe diminishment of wildlife experience.

Access to Jumbo Creek Valley will be restricted from backcountry recreationalists not wanting to access the area anymore.

There is a possibility the developer will try to restrict access.

The Jumbo Master Plan entails limits on access, with the possible closure of nearby drainages.

Resort bureaucracy will limit access for people trying to cross the resort.

The Resort will improve access to the area, and increase overall experience of the Valley.

The Resort may improve winter access to the valley.

## C. Visual Impact of the Jumbo Glacier Resort

FDA Main Research:

The resort will not intrude physically or visually on Jumbo Pass.  
(Source: Developer of Resort)

The Glacier Dome arrival station and Teahouse and terrace will be positioned below the summit in such a way that they will blend into the rock material of the mountain top and will not break the ridgeline. Consequently it will be obscured to the viewer on the opposite sides of the valley and will be completely outside the line of sight for a viewer within the drainage of the Lake of the Hanging Glacier. (Source: Master Plan)

Removal of the lift into the Horsethief Creek drainage and of any physical access into that drainage thereby eliminating any visibility of resort components from the Lake of the Hanging Glacier. No physical access to the Lake.

Removal of two lifts and ski runs at the south end of the project, in order to remove the notion of a visual or physical potential conflict with recreational use of the Jumbo Pass. (Source: Master Plan)

At build-out of Jumbo Resort: 500,411 winter visitors and 60,462 summer visitors

Average winter day visitors per day: 1,101

Average overnight visitors per day: 2,570

Average summer day visitors per day: 885

Average overnight summer visitors per day: 2,936

Visual Impact Assessment does not discuss the visual impact on pre-tourists and recreationalists entering the Jumbo Creek Valley and looking into the Valley from atop the Glaciers.

Also, the Visual Impact Assessment says the night lighting guidelines are discussed in the Master Plan, but no such section exists in the Master Plan.

Visual Impact Assessment does not include visual/physical impact from visitors to the Jumbo Resort to pre-tourists and recreationalists.

(Source: FDA research findings)

Survey Results:

3. What is the overall visual impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists' view of the Jumbo Creek Valley and surrounding drainages?

Scores:

2/10, 0/10, 0/10, 8/10, 0/10, 1/10, 0/10, 0/10, 2/10, 0/10, 2/10,  
1/10, 4/10, 0/10

Total: 20/140 14.3% 1.4/10

Main Rational for Score:

The Jumbo Resort will fundamentally alter the visual landscape. Development is incompatible with wilderness values.

There is a threat of secondary commercial development of the Jumbo Resort, which will worsen impacts.

Beauty destroyed; resort an eyesore.

No beauty in lumber, asphalt and concrete.

Visual impact, which is negative, will extend to the surrounding drainages and areas—Earl Grey trail, Horsethief Creek, Bugaboos etc.

Vast increase in the number of people will severely diminish the visual impact of area.

Development will ruin the natural environment leaving scars.

The Resort will have marginal impact, by blending into the area.

## D. Overall Impact on Jumbo Creek Valley (Noise, Congestion, Pollution)

### FDA Main Research:

Jumbo Glacier Resort Project: expected to have an average of 1,650 persons per day over a 335 day year. (Total 552,750 visitors per year) plus a staff of 750 persons for 335 days (total 251,250)

Total overnight population conservatively projected at 2362 persons per day for 335 days (total: 791,270)

Total day visitors projected at 965 per day for 335 days (total: 323,275)

Total day employees projected at 112 per day for 335 days (total: 37,520)

Average daily traffic at build-out: 943

Daily visitors during peak periods: 2,000 to 3,000 at build-out.

At build-out of Jumbo Resort: 500,411 winter visitors and 60,462 summer visitors

Average winter day visitors per day: 1,101

Average overnight visitors per day: 2,570

Average summer day visitors per day: 885

Average overnight summer visitors per day: 2,936

High efficient wood stoves part of Jumbo Glacier Resort.  
(Source: Master Plan)

Shuswap Indian Band: The reserve is located at the Athalmer Road exit off of Highway 93/95 and is the primary access to the Jumbo Glacier Resort Project. (Source: Master Plan)

Jumbo Resort has no measures to limit number of daily visitors, except the Resort capacity itself.

Jumbo Resort will encourage carpooling and explore a shuttle bus service into the Resort.

The Resort will offer one summer trail from the resort area to the base of the Glacier Dome Gondola, and from there to moraines and the glacier of the Glacier Dome and finish at the Glacier Dome Teahouse.

(Source: FDA research)

#### Survey Results:

4. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists from noise, congestion, and pollution stemming from the Jumbo Resort?

3/10, 0/10, 0/10, 9/10, 0/10, 0/10, 1/10, 0/10, 1/10, 0/10, 0/10, 1/10, 3/10, 1/10

Total: 16/140 11.4% 1.1/10

#### Main Rational for Score:

The Resort will degrade the Jumbo Valley environment from additional and cumulative pollution, noise, and increased human activity.

There is a threat of secondary commercial development of the Jumbo Resort, which will worsen impacts.

An average increase of 1650 people a day in a narrow valley, means the noise, congestion, and pollution will be very high. 1600 to 2000 vehicles per day on Jumbo Road—over a billion pounds of carbon dioxide emissions annually, chemicals, sewage, other products of growth in an extremely fragile environment.

Complete and perpetual harm to the Jumbo environment.

In the West Kootenays, there will be an increase in human wildlife conflicts due to bears becoming accustomed to humans and garbage.

Noise pollution would be obvious from the bustle of vehicles, lift engines, snowcats etc.,

The Development will result in crowded conditions, especially on bad weather days and weekends.

Negative impact from the mere presence of the Resort in the area.

The Resort's environmental impacts have been accounted for in the BC Government environmental assessment process.

## E. Economic Impact

### FDA Main Research:

\$20 to 25 million per year in construction activity for 20 years.  
\$4 million annual direct spending in nearby communities after 3 years of operation.

800 full time jobs at build-out (\$17 to 20 million payroll)

Total on-going economic impact at GDP level after 5 years of operation: \$32 million.

Projected annual tax revenues: over \$12 million.

### Survey Results:

5. What is the overall economic impact of the Jumbo Glacier Resort at build-out on Pre-Resort Recreational Businesses?

### Scores:

0/10 10/10, 0/10, 4/10, 8/10, 0/10, 2/10, 0/10, 3/10 0/10, 5/10

Total: 32/110 29% 2.9/10

### Main Rational for Score:

Outfitters and trappers will cease to exist in the Jumbo Valley.

Tour groups should benefit.

All pre-resort commercial activities will be displaced or taken over by the Resort.

R-K Heliski will likely be displaced by the Resort.

Resort will displace pre-resort tour groups by competing directly with them.

The Resort will expand the area's range of services and recreation year round.

The Resort will generate international recognition of the area.

The Resort will bring no economic benefit to the West Kootenays.

Overall Score for Resort Impact on Pre-Resort Tourists and Recreationalists:

9.6/50 19.2% 1.9/10

## Invermere and Surrounding Areas:

### F. Air Quality

#### FDA Main Research:

Construction and operational activities at Jumbo Glacier Resort would result in localized air quality impacts.

Combustion emissions from mobile heavy-duty diesel and gasoline powered vehicles and equipment

Emissions from worker commuter trips, open burning of wood and organic materials

Fugitive dust from blasting, soil disturbance and land clearing

Wood burning appliances

Worker and visitor vehicular traffic

#### Air emission mitigation plan

Measures for heavy construction vehicles and equipment (speed limits, newer trucks, catalyzed particulate trap fitted on exhaust systems, ultra-low sulphur diesel fuel)

Emissions from worker commuter trips (non-specific-based on education, explore shuttle bus, carpooling)

Open burning plan (checks winds, prohibit certain materials, extinguish certain materials...)

Fugitive dust plan (water roads)

Allow wood burning appliances—high efficiency

Maybe voluntary or mandatory program for curtailment of wood burning during stagnant meteorological conditions

Limited measures for worker, resident, visitor vehicles (electric shuttle buses, overnight visitors keep cars parked, promote buses to and from resort, design walkways and bike paths in resort, pedestrian only areas).

(Source: Master Plan)

Survey Results:

4. What is the overall impact of the Jumbo Glacier Resort at build-out on Invermere and surrounding areas from water quality issues stemming directly and indirectly from the Jumbo Resort?

Scores:

0/10, 1/10

Main Rational:

Glaciers, the source of ground water, are retreating; so there will be less water available to local residents

Sewage and other pollutants from Resort will affect negatively downstream water quality

Total: 1/20 5% .5/10

## G. Water Quality

### FDA Main Research:

The resort will add ZERO liters of water to Jumbo and Toby Creeks and will have no impact on the Columbia Wetlands.  
(Source: Developer of Resort)

Total projected daily water demand by Jumbo Resort: 541,695 liters

Total water demand: 182,727 m<sup>3</sup> (not including water used during the 30 day closure of Resort)

Primary water source: wells

Given the abundant availability of groundwater, there is no intention to draw water directly from Jumbo Creek, and therefore it must be emphasized that no surface water is intended to be utilized in the Jumbo Valley. Domestic water, pumped from wells, will be stored in water reservoirs, consumed by residents and visitors of the resort, and discarded as wastewater to the resort's tertiary wastewater treatment plant. Once treated, the wastewater will be returned to the Jumbo Creek drainage basis via ground infiltration.

The option of application for permission to access surface water would exist.

Jumbo Creek originates from numerous small glacier-fed streams in the Bastille Mountain to Glacier Dome to Karnak Mountain area, and flows southward and eastward through a steep sided (V-shaped) valley, into Toby Creek. Toby Creek in turn flows northeastward through a deeply entrenched valley, a canyon, to the Columbia River.

(Source: Master Plan)

Invermere's water source is Goldie Creek, behind Panorama.  
(Source: City of Invermere)

Survey Results:

2. What is the overall impact of the Jumbo Glacier Resort at build-out on Invermere and surrounding areas from noise, congestion, and pollution stemming from the Jumbo Resort?

Scores:

4/10, 1/10, 0/10, 1/10, 0/10

Total: 6/50 12% 1.2/10

Main Rational:

Increased traffic, congestion from the Jumbo tourists passing through Invermere and Althamere areas

## H. Economic Impact

### Survey Results:

1. What is the overall economic impact of the Jumbo Glacier Resort at build-out on Invermere and surrounding areas?

### Scores:

3/10, 3/10, 6/10

Total: 12/30 40% 4/10

### Main Rational:

Increased tourist dollars spent in Invermere

Panorama Resort could be negatively affected due to increased competition

Decreased quality of life overall in Invermere will have a negative impact on the local economy—less people will want to live, work in Invermere

Some service industry and managerial jobs at Resort will be offset by income spent at Resort and the drain on the Invermere infrastructure—roads, hospitals, policing etc.

## I. Noise, congestion, pollution Impact

### Survey Results:

3. What is the overall impact of the Jumbo Glacier Resort at build-out on Invermere and surrounding areas from air pollution stemming directly and indirectly from the Jumbo Resort?

### Scores:

3/10, 0/10, 4.5/10, 1/10, 3/10

Total: 11.5/50 23% 2.3/10

### Main Rational:

High air pollution from travel to and from Resort  
Thermal inversion in Jumbo/Toby Valleys, would filter air pollution to Invermere

### Overall Resort Impact on Invermere and Surrounding Areas:

8/40 20% 2/10

## Determination of Overall Quality of Life Impact:

### Quality of life impact of the Main Population Groups:

Resort Recreationalist: Estimated population at Resort build-out—168,262. (This number is a 70% reduction of the Jumbo Developer's estimate resort capacity of 560,873. The reduction accounts for overestimations which are generally the norm for developers.)

Each recreationalist is given 100% value or 10 out of 10, or an overall score of 1,682, 620 out 1,682,620

Pre-Resort Recreationalists: Estimated population is 4,756.

The overall impact on pre-resort recreationalists is 1.9 out of 10. Therefore, the Pre-Resort recreationalists receive a score of 47, 560 times 19%, or 9025.

Invermere and Surrounding Areas: Estimated population is 3,842. The overall impact on Invermere and surrounding areas is 2 out of 10. Therefore, the Invermere and surrounding areas receive a score of 38, 420 times 20%, or 7684.

Local First Nations, Shuswap Indian Band, failed to participate in this survey. The estimated population of the Band is 169. The overall impact of the Indian Band would likely be negative due to diminished air and water quality stemming from the Resort, increased noise, congestion, and overall pollution from the Resort (Resort recreationalists would travel in close proximity to the Indian Band to reach or leave the Resort), recreational access would likely be diminished (elimination of trapping and hunting) while due to promises from a developer, the Band stands to benefit significantly.

Regardless of the impact on the Indian Band, its low population number means the Band would have a very marginal impact on the Survey results. In other words, the non-inclusion of the Shuswap Indian Band in this Survey does not weaken the validity of the results.

#### Overall Quality of Life Impact of the Jumbo Resort:

##### Resort Recreationalists

1,682,620 out of 1,682,620

##### Pre-Resort Recreationalists

9,025 out of 47, 560

##### Invermere and Surrounding Areas

7,684 out of 38, 420

##### Total:

1, 699, 329 out of 1, 768, 600 or 96% or 9.6 out of 10.

## Modifications to the Survey Result due to further quality of life impacts.

Note, these additional impacts were identified in stages two and three of the survey, in which participants were given an opportunity to voice their views of the survey results and share additional information and perspective.

1. The Jumbo Resort will result in improved access to Jumbo Creek Valley. As a result of the improved access, the potential Pre-Resort recreationalists should increase. However, the area will be less desirable for Pre-Resort recreationalist to visit, as documented for in the Survey. Yet, more moderate recreationalists may enter the Valley. Though since it is documented that the grizzly bears in decline in the Jumbo Creek area (without even Jumbo Resort), it means that the Jumbo Resort with 168,000 plus recreationalists a year, will push the grizzly bear into further decline, which means that many trails and roads in the Jumbo Creek Valley and surrounding drainages will be closed (as stated in the Resort's Master Plan). Therefore, if anything, the Pre-Resort recreationalists will likely decline than increase. So the FDA determines that improved access will not result in any changes to the Survey results.

2. The increased stress on the Invermere infrastructure due to increased tourists traveling through Invermere to reach the Jumbo Resort, would decline quality of life of the public services available to Invermere and surrounding area residents.

The Survey has already accounted for the economic impact on infrastructure, but not on the overall quality of life of residents.

The overall survey score for Invermere and surrounding areas is at 20% or 2 out of 10. So the overall impact of additional stress and

usage on the infrastructure would have to be less or more than 2 out of 10 to be of significance, and even then overall impact would be marginal.

Clearly, Invermere's infrastructure such hospitals, roads, police and force would be more stressed. However, the Survey has already accounted for economic impact, because the City would have to expand the infrastructure it provided, and thereby increase the taxes or cost of living of residents. As mentioned, this has already been accounted for. Therefore, no additional impact needs to be added to the Survey results.

3. Due to the declining Canadian and international ski market, the Jumbo Resort will likely threaten ski recreationalists at other local ski resorts such as Kimberley Ski Resort.

Yet, any decline in the quality of life of local ski recreationalists from the Kimberley, should be offset by an increase in quality of life of local ski recreationalists from the Invermere/Windermere area. Therefore, FDA concludes that the overall quality of life impact to local ski recreationalists would be negligible.

4. Should the Resort recreationalists receive 100% scores for quality of life?

The quality of life as documented in the Survey, will not be at 100%. With the Jumbo Creek Valley, already in a less than perfect condition due to a yearly influx of Pre-Resort recreationalists, and a history of logging and mining, the Valley will decline further from the Resort.

Resort recreationalists will face congestion, crime, pollution issues, water and air quality issues, visual impact issues, and potential economic issues if the Resort is not economically viable. Also, the Resort recreationalists will face likely trail and road closures.

On the flip side, the recreationalists will likely enjoy greater recreational opportunities, and the benefits of being in a wilderness type environment, and visual benefits.

The FDA thinks that to account for less than perfect quality of life impact that the quality of life impact on Resort recreationalists should be at 80% or 8 out of 10. (The 20% reduction allows for the less than perfect quality of life experience, and yet at the same time the enhanced quality of life experience of the recreationalists)

5. Should the individuals of all the population group's and within the groups receive equal quality of life value? Should the Pre-Resort recreationalist and residents of Invermere and surrounding areas receive greater quality of life value than Resort recreationalists, because they were first to use the Jumbo Creek Valley or live nearby it?

Canadian society is premised on every member of the society receiving equal rights.

Also, Canadian society is dynamic.

There is nothing in Canadian law that says some citizens should be awarded greater quality of life rights due to first use of an area or due to close proximity to an area.

Moreover, the Developer through BC Environmental Assessment has included many measures to reduce its impact on affected population groups.

Therefore, it is the conclusion of the FDA that the individuals in this Survey should receive equal quality of life value.

6. The quality of life values should differentiate between permanent residency and temporary residence, with the former receiving higher value.

Quality of life impact is on an individual and moment to moment basis. It is not within the FDA means to identify, reasonably,

quality of life impacts for each individual, not to mention many of them are not known.

Consequently, the FDA has focused on impacts to population groups. The variance of impacts within groups is consistent with impacts on the groups overall.

7. What value of quality of life, if any, should be awarded to wildlife?

Quality of life values for wildlife are reflective in the beliefs of the population groups. For example, the Pre-Resort recreationalists as a whole put high value on wilderness experience, and thereby indirectly high quality of life value for wildlife.

Modification of Survey Results:

\* Resort Recreationalists

168, 262 times 80%, or 134, 610

1,346,100 out of 1, 682, 620

Pre-Resort Recreationalists

9,025 out of 47, 560

Invermere and Surrounding Areas

7,684 out of 38, 420

Total:

1, 362, 809 out of 1, 768, 600 or 77% or 7.7 out of 10.

## Reliability of Survey Results

The Survey Results for Pre-Resort recreationalists is based on fourteen survey responses by Pre-Resort recreationalists. Though nearly all of these respondents are anti-Jumbo Resort, it is typical of Pre-Resort recreationalists who on the whole value wilderness experience. Moreover, the respondents are diverse and extremely knowledgeable of the Jumbo Creek Valley and the surrounding drainages. For example, Nolan Radd has been hunting and trapping in the Jumbo Creek Valley for more than sixty years, and the Alpine Club of Canada represents many outdoors people who access Jumbo Creek Valley on annual basis. Therefore, the Survey Results for Pre-Resort recreationalists are very reliable, and give very good gauge of the quality of life impact of the Jumbo Resort on Pre-Resort Recreationalists.

The Survey Results for Invermere and surrounding areas is limited by the small number of survey responses. However, the quality of the survey responses such as an Invermere city councilor and the MLA for Columbia-Revelestoke region helps compensate for the number of survey responses. Though the reliability of the results is less than for Pre-Resort recreationalists, they give a general idea of the Resort impact on Invermere and surrounding areas.

The Survey questions for both Pre-Resort recreationalists and Invermere and surrounding areas cover key quality of life areas.

## Analysis:

The population of the Resort recreationalists, even at a 70% reduction off the Developer's estimate, grossly out numbers a combination of Pre-Resort recreationalists and residents from Invermere and surrounding areas.

168, 262 to 8,598 (20 times greater).

The quality of life impacts were opposite between Resort recreationalists, and the Pre-Resort recreationalists and residents of Invermere and surrounding areas:

Resort recreationalists: 80% or 8 out of 10 impact versus Pre-resort recreationalists, 19% or 1.9 out of 10 and Invermere and surrounding areas, 20% or 2 out of 10.

The Pre-Resort recreationalists and Invermere and surrounding areas were scored significant overall negative quality of life impacts, 19% and 20%. The scores were consistent across the quality of life categories for each group. Though in the economic section, Invermere and surrounding areas scored the highest and yet still negative impact, at 40%.

The Survey for Invermere and surrounding areas was limited to five or less participants, which weakens the results. Nevertheless, the results along with the rationale for them can be used to gauge the general quality of life impact on Invermere and surrounding areas.

The Survey for Pre-Resort recreationalists was composed primarily of anti-Jumbo Resort participants. However, the bias to anti-Jumbo Resort participants is consistent with Pre-Resort recreationalists who value generally wilderness experience.

## Conclusion:

The Jumbo Glacier Resort will have a 77% overall positive impact on quality of life in the Jumbo Creek Valley and surrounding drainages.

However, Pre-Resort recreationalists face a 19% overall negative impact from the Jumbo Resort on their quality of life in the Jumbo Creek Valley and surrounding drainages. The percentage of this negative impact will likely worsen due to unavoidable road and trail closures to help offset grizzly bear decline. The Grizzly bear population in the Purcell Mountains is already in decline; so with the addition of the Jumbo Resort in the area, it is expected by the FDA that the decline will only worsen, which will mean significant road and trail closures to protect them. (These closures are clearly stated in the Resort's Master Plan.) It is anticipated that Pre-Resort recreationalists will eventually reach a 0% overall negative impact due to the Jumbo Resort. Viz., the road and trail closures, and domination of the Jumbo Creek Valley by the Jumbo Resort and its thousands of recreationalists will destroy the quality of life experience of the Pre-Resort recreationalists.

Similarly, the City of Invermere and surrounding areas face a 20% overall negative impact from the Jumbo Resort on their quality of life. This impact may worsen as Invermere due to increased Resort-related crime, congestion, and pollution, becomes a less attractive recreational destination.

It should be noted that the Jumbo Resort will increase ski competition in the Kootenays, in an already declining industry, which may in turn cause for example the Kimberley ski hill to close. Even though such a closure would have significant quality of life implications, it is not factored into this Survey because the marketplace allows for competition, and the quality of life

reduction in the Kimberley area by ski recreationalists and labour would be offset by an increase in the Invermere/Windermere area. As a final note, an issue this development process faces is the domination of the majority over the minority. The FDA thinks that the BC Liberal government is acting negligent, reckless, and shortsighted by allowing a Resort to take over an area at the expense of Pre-Resort users of the area and adjacent population centers, not to mention the significant harm the Jumbo Resort poses to the Jumbo Creek environment.

Moreover, it is shameful of the BC government bureaucrats, particularly from the BC Ministries of Environment and Tourism to sidestep the issues of this proposed Resort, by basically calling for road and trail closures, which gives priority to the Resort at the expense of all the other users. In a world of increasing environmental harm, the BC Liberal government despite its rhetorical claim of adherence to sustainability is only adding to the harm.

# Appendix A

## Survey Responses:

To enhance the Survey, all Survey responses are anonymous.

1.

### Responses to the Jumbo Glacier Resort Project Quality of Life Assessment

**1. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in the area of Protection of Environment including impact on wildlife (quality of wilderness experience in the Jumbo Creek Valley and surrounding drainages)?**

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Score (0 out of 10): **0**

Rationale for your score:

**If this development goes ahead, it will have an irreversible and negative impact on both the natural environment of the area, and on the wilderness experience of current visitors to the area. As indicated in the information provided with this survey, the resort developers have put forward wildlife impacts assessments that have been found subsequently to be inaccurate. We have little faith that any of the other projections, promises, undertakings or stated intentions of the proponents are either reliable or accurate. Given such a profound lack of trust, we simply do not believe the environmental impact scenario put forward by the proponent. This development will fundamentally change the environment in the Jumbo Creek Valley and surrounding drainages. It is neither sustainable nor environmentally appropriate.**

**2. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in the area of Access to Outdoors Recreation?**

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Score (0 out of 10): **0**

Rationale for your score:

**The proposed development will inevitably lead to access restrictions, both through the development process itself, which will remove land area from public use, and through the inevitable conflict between backcountry recreationalists and commercial interests.**

**3. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in the area of Visual Impact of Resort?**

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Score (0 out of 10): **0**

Rationale for your score:

**The proposed resort development will fundamentally alter the visual landscape, imposing a level of development that is incompatible with wilderness values.**

**4 What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in the area of Overall Impact on Jumbo Creek Valley (Noise, Congestion, Pollution)?**

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Overall Impact of Jumbo Valley.

Score (0 out of 10): **0**

Rationale for your score:

**The proposed resort development will inevitably degrade the Jumbo Creek Valley environment through additional and cumulative pollution, noise and increased human activity.**

### Additional Comments:

With some reservations, we have limited our responses to those elements laid out in the survey, and the information provided concerning the Jumbo Creek Resort Development proposal, much of which we believe to be inaccurate in relation to environmental factors. For instance, a key rationale for the viability of the resort is the proponent's contention that glaciers in the area are not receding. All available evidence from that region of B.C. indicates that this is not the case. Glacial recession is, in fact, both significant and accelerating. This undermines the central argument for the viability of the development.

A contingent concern is that this proposal may not be an accurate representation of the likely outcomes, should the development project proceed. The business elements of the plan do not make financial sense. The development, as proposed, will not generate sufficient revenue to justify the costs involved. This suggests a possible scenario where the developer will, once the initial development is in place and jobs are at stake, "come to realize" that their concept of a "boutique ski resort" is not economically viable without significant additional residential and commercial development. This pattern of "unintended" secondary development, precipitated by financial crisis, is already occurring in other areas of the province.

Given this potential outcome, assessing the quality of life impacts associated with the development is virtually impossible. The plan, as presented, may well have little to do with the eventual scale and character of the development that will result.

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2.

1. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in the area of Protection of Environment including impact on wildlife (quality of wilderness experience in the Jumbo Creek Valley and surrounding drainages)?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Protection of Environment.

Score (0 out of 10):

9

Rationale for your score: This will be the most environmentally sound resort in the world with minimal impact.

2. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in the area of Access to Outdoors Recreation?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, rafters, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on Access to Outdoors Recreation.

9

Score (0 out of 10):

Rationale for your score: The facilities and expanded critical mass of the area including Panorama resort will add to the overall experience and make access better.

3. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in the area of Visual Impact of Resort?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Visual Impact of Resort.

Score (0 out of 10):

8

Rationale for your score: Design will blend in with the area though there will be a marginal visual impact, however more people will have access to see the beauty of the area and the glaciers etc.

4. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in the area of Overall Impact on Jumbo Creek Valley (Noise, Congestion, and Pollution)?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Overall Impact of Jumbo Valley.

Score (0 out of 10): 9

Rationale for your score: This has been covered in the Government Environmental assessment process.

5. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Recreational Businesses in the area of Economy?

Pre-Resort Recreational Businesses refers to recreational businesses like outfitters, trappers, and tour groups which operate in the Jumbo Creek Valley and/or surrounding drainages.

Attached is relevant research on Economy ("Resort Employment").

Score (0 out of 10): 10

Rationale for your score: It will place the area on the "international map" and greatly enhance Panorama's and Invermere's range of services and recreation year round

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3.

**Survey Questions:**

1. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in the area of Protection of Environment including impact on wildlife (quality of wilderness experience in the Jumbo Creek Valley and surrounding drainages)?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Protection of Environment.

Score (0 out of 10): 0

Rationale for your score:

The grizzly & black bear will be destroyed as bears & people cannot co-exist. Tagging & moving bears is not a solution as most bears will return to their territory or will become a nuisance in the area they are moved to. The mountain goat will move out and the rest of the ungulates will suffer. Wild animals and resorts just don't mix.

2. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in the area of Access to Outdoors Recreation?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on Access to Outdoors Recreation.

Score (0 out of 10): 0

Rationale for your score:

Hunting, trapping & wildlife watchers will no longer exist. It will be just like Panorama; nothing but a few deer and any bear that wonder in are either destroyed or tagged and moved out of their territory. Hikers, climbers, back country skiers, solitary outdoor people as well as ATV users & horse back riders will suffer plenty.

3. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in the area of Visual Impact of Resort?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Visual Impact of Resort.

Score (0 out of 10): 0

Rationale for your score:

When you are used to looking at the beauty of the back country & then some developer comes along and wants to build a bunch of buildings & fill them with people the visual impact is 100% negative. The beauty is destroyed and gone forever.

It will be just another eye sore. There is no beauty in lumber, asphalt & concrete.

4. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in the area of Overall Impact on Jumbo Creek Valley (Noise, Congestion, Pollution)?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Overall Impact of Jumbo Valley.

Score (0 out of 10): 0

Rationale for your score:

When you put an expected average of 1650 people per day into a narrow valley the noise, congestion & pollution will be very high. Also this is just a real-estate grab not a resort.

5. What is the overall impact of the Jumbo Glacier Resort at build-out on Invermere and Surrounding Areas in the area of Air Quality?

Invermere and Surrounding Areas refers to the City of Invermere, and Toby Benches, Panorama, and Rushmere.

Attached is relevant research on Air Quality.

Score (0 out of 10): 0

Rationale for your score:

The air quality will suffer extremely. The air pollution from this mess will travel down the valley to the Toby watershed then on down the main valley where us folks living below this will be breathing the polluted air for ever after.

6. What is the overall impact of the Jumbo Glacier Resort at build-out on Invermere and Surrounding Areas in the area of Water Quality?

Invermere and Surrounding Areas refers to the City of Invermere, and Toby Benches, Panorama, and Rushmere.  
Attached is relevant research on Water Quality.

Score (0 out of 10): 0

Rationale for your score:

Ground water comes from the glacier's and they are disappearing fast. I know from over 60 years of personal observation. Toby Benches will probably be the first to suffer, then Panorama, Invermere & Rushmere; in that order.

7. What is the overall impact of the Jumbo Glacier Resort at build-out on Shuswap Lake Band in the area of Air Quality?

Shuswap Lake Band refers to the local Invermere First Nations community located at the Athalmer Road exit off of Highway 93/95, the primary access to the Jumbo Glacier Resort Project.  
Attached is relevant research on Air Quality.

Score (0 out of 10): 0

Rationale for your score:

"Who cares" The Shuswap band is working hand in glove with the proponent. They care about nothing except what they can put in their own pockets. They are definately not the type of First Nations that the Columbia Lake Band are.

8. What is the overall impact of the Jumbo Glacier Resort at build-out on Shuswap Lake Band in the area of Water Quality?

Shuswap Lake Band refers to the local Invermere First Nations community located at the Athalmer Road exit off of Highway 93/95, the primary access to the Jumbo Glacier Resort Project.

Attached is relevant research on Water Quality.

Score (0 out of 10): 0

Rationale for your score:

Same answer as #7. Who cares! There are a few Shuswap that understand & can see the deficit of this project, but not enough to make much difference. I feel bad that some of the guys & girls I grew up with are selling us down the drain.

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4.

1. What is the overall environmental impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in terms of quality of wilderness experience?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Protection of Environment.

Score (0 out of 10): 2

Rationale for your score:[Mike Christensen] There is no such thing as wilderness within a very large radius (many km) of a resort proposing an additional 555,000 visits to an area in any given year. It's not like the guests are teleported to the site and fenced in once there, the impacts to the entire surrounding area will be huge. Only reason to not score this impact a 0 is that valley is somewhat compromised already.

2. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists' access to outdoors recreation?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, rafters, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on Access to Outdoors Recreation.

Score (0 out of 10): 3

Rationale for your score:[Mike Christensen] Access will not physically be altered to a great degree if attached plans are adhered to (I mis-trusted them and believe there will be an ongoing push to reduce 'outside' access). The key to this impact is that the current user group, though still able to access most of the area in question, will not want to. Current users are looking for remote not resort.

3. What is the overall visual impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists' view of the Jumbo Creek Valley and surrounding drainages?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Visual Impact of Resort.

Score (0 out of 10): 1

Rationale for your score: Current users are looking for remote not resort. Majority of current users will see resort as a blight on the landscape, ditto to the massive increase in human use of surrounding area. How can you enjoy the view when everywhere you look are people?

4. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists from noise, congestion, and pollution stemming from the Jumbo Resort?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Overall Impact of Jumbo Valley.

Score (0 out of 10): 0

Rationale for your score: Current users are looking for remote not resort. 560,000 users compared to 4,700 says it all, although I think both numbers are optimistic.

5. What is the overall economic impact of the Jumbo Glacier Resort at build-out on Pre-Resort Recreational Businesses?

Pre-Resort Recreational Businesses refers to recreational businesses like outfitters, trappers, and tour groups which operate in the Jumbo Creek Valley and/or surrounding drainages.

Attached is relevant research on Economy ("Resort Employment").

Score (0 out of 10): 4

Rationale for your score: Outfitters and trappers will see business as they know it cease to exist. Reason I don't score this one higher is that tour groups should benefit and outfitters and

trappers are already operating in a fairly compromised valley (proximity to Panorama and Invermere and all the people that entails)

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5.

1. What is the overall environmental impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in terms of quality of wilderness experience?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Protection of Environment.

Score (0 out of 10): 5

Rationale for your score:

Currently lots of people use it. Upon build out if they close the drainages near the project we all loose commercially and publicly.

2. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists' access to outdoors recreation?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, rafters, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on Access to Outdoors Recreation.

Score (0 out of 10): 2

Rationale for your score:

If the government closes the valley's around the resort then we lose. I basically want Commander and Farnham Glaciers for our Adventure Activities plus more. They basically have a CRA that limits my ability to run an ATV trip to the glacier and a sight seeing walk on the glacier I want access to these valley's. These proponents are greedy old men on crack.

3. What is the overall visual impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists' view of the Jumbo Creek Valley and surrounding drainages?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Visual Impact of Resort.

Score (0 out of 10): 0

Rationale for your score:

Resort Town. If it were up to Myself I would Dam the Jumbo Creek Valley and Flood the Valley up to the resort boundaries and create a large Deep Lake and hydro Dam. Develop the lake shore. Golf and Ski plus fishing and recreation activities.

Basically if you're going to Fuck a Valley with a 60 km/road and gas stations and build a resort with melting glaciers etc then DO IT RIGHT!! FUCK THE WHOLE VALLEY. Make it the BEST you can for our future and leave Farnham and other drainages from the developers.

4. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists from noise, congestion, and pollution stemming from the Jumbo Resort?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Overall Impact of Jumbo Valley.

Score (0 out of 10): 1

Rationale for your score:

Flood the Valley, Do it write, electric lifts, electric train, electric cars. Animals are dead and doomed to die on highways anyhow.

5. What is the overall economic impact of the Jumbo Glacier Resort at build-out on Pre-Resort Recreational Businesses?

Pre-Resort Recreational Businesses refers to recreational businesses like outfitters, trappers, and tour groups which operate in the Jumbo Creek Valley and/or surrounding drainages.

Attached is relevant research on Economy ("Resort Employment").

Score (0 out of 10): 8

Rationale for your score:

I own and run a recreational business. Basically if you increase the area numbers then you increase our numbers.

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6.

1. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in the area of Protection of Environment including impact on wildlife (quality of wilderness experience in the Jumbo Creek Valley and surrounding drainages)?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Protection of Environment.

Score (0 out of 10): score: 0

Rationale for your score: Building a huge real estate development in Jumbo will destroy the very values that currently attract people to the area, including wildlife and independent outdoor adventure.

2. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in the area of Access to Outdoors Recreation?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, rafters, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on Access to Outdoors Recreation.

Score (0 out of 10): Score: 0

Rationale for your score: Access to the area as we know it will be severely curtailed. The promoter has stated clearly that there will be no hunters or loggers in Jumbo if the project proceeds. Outdoor access will be based upon the wishes and affordability of the Resort owners, and guests, not the pre-resort public.

3. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in the area of Visual Impact of Resort?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Visual Impact of Resort.

Score (0 out of 10): Score: 0

Rationale for your score: The visual impact will be overwhelming and it cannot be mitigated, no matter what promises to do so have been made.

4. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in the area of Overall Impact on Jumbo Creek Valley (Noise, Congestion, Pollution)?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Overall Impact of Jumbo Valley.

Score (0 out of 10): Score 0

Rationale for your score: The impact of noise, congestion and especially pollution will be huge. 1000 to 2000 vehicles/day on the Jumbo road, over a billion pounds of carbon dioxide emissions annually, chemicals, sewage and other products of growth in an extremely fragile environment.

5. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Recreational Businesses in the area of Economy?

Pre-Resort Recreational Businesses refers to recreational businesses like outfitters, trappers, and tour groups which operate in the Jumbo Creek Valley and/or surrounding drainages.

Attached is relevant research on Economy ("Resort Employment").

Score (0 out of 10): Score 0

Rationale for your score: All pre-resort commercial activities will be displaced or taken over by the Resort.

6. What is the overall impact of the Jumbo Glacier Resort at build-out on Shuswap Lake Band in the area of Air Quality?

Shuswap Lake Band refers to the local Invermere First Nations community located at the Athalmer Road exit off of Highway 93/95, the primary access to the Jumbo Glacier Resort Project.

Attached is relevant research on Air Quality.

Score (0 out of 10): Score 0

Rationale for your score: Air quality in the entire Columbia Valley has deteriorated measurably in recent years. We can reasonably expect that a huge development upwind will only make it worse.

9. What is the overall impact of the Jumbo Glacier Resort at build-out on the Shuswap Indian Band in the area of Overall Impact on Jumbo Creek Valley (Noise, Congestion, Pollution)?

Shuswap Lake Band refers to the local Invermere First Nations community located at the Athalmer Road exit off of Highway 93/95, the primary access to the Jumbo Glacier Resort Project.

Attached is relevant research on the Overall Impact of Jumbo Valley.

Score (0 out of 10): Score 0

Rationale for your score: I can only predict that everyone in the Columbia Valley will be impacted negatively .

(see question 4)

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7.

1. What is the overall environmental impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in terms of quality of wilderness experience?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Protection of Environment.

Score (0 out of 10): 1

Rationale for your score: For anybody using the Jumbo Creek drainage itself, the "wilderness experience" will cease to exist completely as road building, road traffic and the 7,000 bed resort will supplant all traditional uses. Animals will be displaced, sound will be disrupted, the sense of wilderness and isolation will cease and the view from all surrounding peaks will be of a city, not wilderness (hence 0). In surrounding valleys, the disruptions will be less but considerable nevertheless. Disturbance will spill over into these areas through displacement of animals and increased recreational traffic, including helicopters as well as other motorized vehicles that currently cannot easily access the area. Since the high peak lifts, gondolas and tea houses will be visible from afar, the visual impact will be extensive (hence 2).

2. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists' access to outdoors recreation?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, rafters, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on Access to Outdoors Recreation.

Score (0 out of 10): 2

Rationale for your score: On the East Kootenay side, especially out of Invermere, the impact on access to wilderness will be huge since the most easily accessible wilderness in the area, will cease to be wilderness. This is true to a lesser degree for the West Kootenays though the Jumbo area is currently the most used and most easily accessed zone of high peaks and glaciers from the West as well.

3. What is the overall visual impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists' view of the Jumbo Creek Valley and surrounding drainages?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Visual Impact of Resort.

Score (0 out of 10): 2

Rationale for your score: Again, on the East Kootenay side, it will be hard to get away from being able to see some aspect of the resort from many destinations in the area including the Earl Grey Trail, the Horsethief Creek drainage as well as all the peaks within the vicinity as far away as the premier climbing area of the Bugaboos. On the West Kootenay side, the view at Jumbo Pass will be completely altered to the east and the resort will be visible from most other hiking and climbing destinations in the area as well with the exception of Monica Meadows. Valley bottom recreationalists on the West Kootenay side will have less visual disturbance.

4. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists from noise, congestion, and pollution stemming from the Jumbo Resort?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Overall Impact of Jumbo Valley.

Score (0 out of 10):1

Rationale for your score: On the East Kootenay side, again, the impact will be complete and perpetual. On the West Kootenay side, noise and air pollution will also drift over and human-wildlife conflicts will likely rise due to animals (bears in particular) becoming accustomed to humans and their garbage.

5. What is the overall economic impact of the Jumbo Glacier Resort at build-out on Pre-Resort Recreational Businesses?

Pre-Resort Recreational Businesses refers to recreational businesses like outfitters, trappers, and tour groups which operate in the Jumbo Creek Valley and/or surrounding drainages.

Attached is relevant research on Economy ("Resort Employment").

Score (0 out of 10): 2

Rationale for your score: Most pre-resort recreational businesses will lose access to some of their premier destinations. This would include businesses like RK Heliskiing as well as outfitters who use the area to give clients a wilderness experience. Trappers, hunters and hunting guides will likely avoid the area completely due to permanent disturbances to wildlife.

6. What is the overall economic impact of the Jumbo Glacier Resort at build-out on Invermere?

Invermere refers to the City of Invermere and the areas of Toby Benches, Panorama, and Rushmere.?

Attached is relevant research on Economy ("Resort Employment").

Score (0 out of 10): 3

Rationale for your score: Invermere will experience an increase in traffic and use of its services without necessarily much increase in revenue since most tourists headed for the Jumbo Glacier Resort will spend their time and dollars there. This will likely take revenue and skiers away from Panorama. Currently, there are not enough employees to fill existing positions in the tourism industry in the area and thus, employees will be recruited from elsewhere also adding pressure to housing and other social services.

7. What is the overall impact of the Jumbo Glacier Resort at build-out on Invermere's noise, congestion, and pollution?

Invermere refers to the City of Invermere and the areas of Toby Benches, Panorama, and Rushmere.

Attached is relevant research on the Overall Impact of Jumbo Valley.

Score (0 out of 10):0

Rationale for your score: Wow! This question puts fear into my heart. If I lived in Invermere, I would move away quickly. I can't actually picture that town and the valley leading to Jumbo having to deal with the increased traffic and connected noise, congestion and pollution the resort would bring. It would permanently alter the quality of life and character of Invermere. And if I was a skier or condo holder at Panorama, I'd think about taking my business elsewhere.

8. What is the overall impact of the Jumbo Glacier Resort at build-out on Invermere's air quality??

Invermere and Surrounding Areas refer to the City of Invermere, and Toby Benches, Panorama, and Rushmere.?

Attached is relevant research on Air Quality.

Score (0 out of 10): 1

Rationale for your score: Days of thermal inversion in the Jumbo/Toby Valleys would make the air pollution intolerable and I suspect this haze would filter down to Invermere as well.

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8.

1. **ECONOMY: SCORE: 3, My constituents tell me that they do not support the Jumbo Glacier Resort. They do not feel that this development will make the Columbia Valley a better place to live. The quality of life found in the Columbia Valley is one of the biggest economic drivers for the area; people want to visit, live and work here. Lessening livability will not improve the economy in the area.**
2. **OVERALL IMPACT: SCORE: 1, There is little doubt that the noise, congestion and pollution in the Jumbo Creek Valley will increase with the completion of Jumbo Glacier Resort.**
3. **AIR QUALITY: SCORE: 3, Increased vehicle traffic into the area will definitely impact air quality all along the roadway.**

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9.

1. What is the overall economic impact of the Jumbo Glacier Resort at build-out on Invermere?

Invermere refers to the City of Invermere and the areas of Toby Benches, Panorama, and Rushmere.

Attached is relevant research on Economy ("Resort Employment").

Score (0 out of 10): 6

Rationale for your score: While the resort could provide service industry jobs and some managerial positions, historically, this income (as well as the tourist dollars) has been spent largely at the resort of employment. As well, the stress and drain on resources such as roads, hospitals and policing could well off set this income.

2. What is the overall impact of the Jumbo Glacier Resort at build-out on Invermere's noise, congestion, and pollution?

Invermere refers to the City of Invermere and the areas of Toby Benches, Panorama, and Rushmere.

Attached is relevant research on the Overall Impact of Jumbo Valley.

Score (0 out of 10): 4

Rationale for your score:

Jumbo Glacier Resort would greatly increase traffic and congestion on Toby Creek Rd and through Althamere. This route is currently a narrow, dangerous, winding road, and would need major upgrades to accommodate increased traffic.

3. What is the overall impact of the Jumbo Glacier Resort at build-out on Invermere's air quality?

Invermere and Surrounding Areas refer to the City of Invermere, and Toby Benches, Panorama, and Rushmere.

Attached is relevant research on Air Quality.

Score (0 out of 10):3

Rationale for your score:

[See previous question;](#) the main effect would be the increased traffic through Athalmere

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10.

### **Survey Questions for the Kootenay Mountaineering Club:**

1. What is the overall environmental impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in terms of quality of wilderness experience?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Protection of Environment.

Score (0 out of 10): score is 0; that is, the greatest negative impact.

Rationale for your score: a city of some 5000 people in the Jumbo Creek valley will completely destroy the wilderness quality of the area. I write as someone who has been climbing and hiking in the Jumbo/Farnham/Toby and Glacier Creek drainages since 1976. My most recent visit to Jumbo valley was on July 10-12, 2009 when my climbing partner and I scaled Redtop Mtn. at the south end of the valley. Thus, I do have some direct knowledge of the local back country. Yes, Jumbo Creek has seen logging and mining activity, but to say, or imply, that the creation of a year-round townsite in the upper valley will not radically compromise the wilderness experience is absurd or disingenuous. Do I really need to detail for you the impact of greatly expanded road access (maybe paved), alteration of Jumbo Creek, imposition of chair lifts, paved parking lots, sewage disposal, a lodge, condos, 24-hour-a-day lighting--in fact, the creation of a remote community with population greater than that of Invermere? Moreover, my experience as a stakeholder in these kinds of activities tells me the proponent will want to provide summer commercial recreational activities, and that likely means heli-hiking, one of the most intrusive impacts on other recreational users.

2. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists' access to outdoors recreation?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, rafters, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on Access to Outdoors Recreation.

Score (0 out of 10): 2

Rationale for your score: This could be very negative. For mitigation, the proponent recommends closing of existing logging roads that recreationalists currently use. The message to locals is very clear: "You give up access to your not-for-profit recreational activities so that the proponent can use this Crown Land for his financial benefit." Mining and logging never had this kind of exclusionary effect.

3. What is the overall visual impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists' view of the Jumbo Creek Valley and surrounding drainages?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Visual Impact of Resort.

Score (0 out of 10): 0

Rationale for your score: Although the proponent asserts that the resort will not be visible from Jumbo Pass, the view from almost any other high point around the valley will be fatally compromised from the point of view of a wilderness experience. Once again, we are talking about placing a small city in a remote valley more than 40 km. from the Columbia River Trench. In an earlier plan, the proponent, Mr. Oberto Oberti, proposed locating a tea house on the summit of Glacier Dome, an act I publicly referred to as "an abomination."

4. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists from noise, congestion, and pollution stemming from the Jumbo Resort?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Overall Impact of Jumbo Valley.

Score (0 out of 10): 0

Rationale for your score: Once again, the valley will be permanently altered. And I stress "permanently." The urban footprint is just not appropriate for this valley, a point residents of the East and West Kootenays have emphatically made clear to the proponent and the Government of BC.

5. What is the overall economic impact of the Jumbo Glacier Resort at build-out on Pre-Resort Recreational Businesses?

Pre-Resort Recreational Businesses refers to recreational businesses like outfitters, trappers, and tour groups which operate in the Jumbo Creek Valley and/or surrounding drainages.

Attached is relevant research on Economy ("Resort Employment").

Score (0 out of 10): 0

Rationale for your score: The only case I have direct knowledge of is that of R-K Heli Ski, who had legal tenure to operate in Jumbo and Glacier creeks. The government over-ruled R-K's tenure and awarded the relevant parts of it to JGR. My understanding is that R-K has lost every legal appeal in the BC courts. What does this tell the public, and other commercial back country tenure holders, about the security and validity of legal contracts they have entered into with the BC Government?

I would like to add final comments in light of your organization's name, Foundation for Democratic Advancement. There is nothing democratic about the creation of this resort and its imposition upon the population of the Kootenays. Surveys, public forums, letters and emails over the last 17 years or so clearly indicate that local and regional residents are opposed to the JGR. As you are

aware, the BC Government has even introduced legislation enabling cabinet to over-rule the Regional District of East Kootenay if it fails to re-zone the area for resort status--that is, Bill 75, the Significant Projects Streamlining Act. This legislation, along with Bill 30, which show contempt for local residents on the part of the provincial government, is reflective of a crisis of democracy in our province. Just as with Independent Power Projects, local residents (who have to live with the consequences of these developments) feel that their concerns are ignored or are cynically folded into reports on projects that have already been given the go-ahead at the Cabinet level. It is just shameful.

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### **Survey Questions:**

1. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in the area of Protection of Environment including impact on wildlife (quality of wilderness experience in the Jumbo Creek Valley and surrounding drainages)?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Protection of Environment.

Score (0 out of 10): 0

Rationale for your score: All the listed pre-resort recreationists are seeking some form of experience that entails an escape from developed areas, and some form of greater connection with wilderness and wild places. A resort, with humming generators or lifts, traffic to and from, linear scars of lifts and ski runs, and a city of 6500 is the antithesis of what this group seeks, and the simple presence of a resort precludes most of these activities as they are currently undertaken in that area.

2. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in the area of Access to Outdoors Recreation?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on Access to Outdoors Recreation.

Score (0 out of 10): 0

Rationale for your score: The proposed mitigation strategies for the resort's impacts on the Central Purcell Grizzly Bear population includes closing trails and roads to public use in surrounding drainages. Although the details of this are lacking, as is the case for most of the High-school-project-like Environmental Assessment document for the resort, this will surely impact public access to Jumbo Creek, Leona Creek, North and South Glacier Creeks, Howser Creek, Stockdale, Horsethief, Lake of the Hanging Glacier, Farnham, Macdonald, Redline, and Delphine Creeks, which collectively represent some of the most popular hiking, backcountry skiing, ATV'ing, hunting, and general wilderness-oriented outdoor recreation destinations in the entire Kootenay Region.

3. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in the area of Visual Impact of Resort?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Visual Impact of Resort.

Score (0 out of 10): 2

Rationale for your score: There exists already some level of visual impact from heli-ski clearcuts, and over 30 years of conventional clearcuts in the Jumbo Valley. However, these are slowly returning to their natural state, whereas human settlement has been shown repeatedly (Canmore, Invermere, Fernie, Golden, Cranbrook, Calgary, etc etc etc) to do nothing but increase in size. The permanence of the resort would impart some negative values as well to the visual aspect, and the very presence of the resort would also have a certain level of negative emotional and spiritual impact on the pre-resort recreation user group, as much of this group has fought hard for 20 years, and has felt largely ignored by public process and various governments in the process. The presence of the resort would represent the failure of public process, and the failure of democracy

for this user group, and it would also be a very negative intrusion into a landscape that many hold dear in its wilderness state.

4. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in the area of Overall Impact on Jumbo Creek Valley (Noise, Congestion, Pollution)?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Overall Impact of Jumbo Valley.

Score (0 out of 10): 0

Rationale for your score:

Human settlement and associated noise, activity, etc would negate the main value that is perceived and searched for by this use group: wilderness. There are many and varied definitions of wilderness, however they share one commonality: an obvious and palpable lack of human activity and bustle. I am not sure how much pollution would be associated with the resort - likely not enough for a brief sensory perception of it. Water quality and air quality will undoubtedly suffer in the Jumbo Valley, but this might not be obvious to observers (other than the hanging pall of woodsmoke from recreational homes such as that that hangs over Golden in still winter airs). Noise pollution will be an obvious negative impact, as the bustle of vehicles, lift engines, snowcats, etc associated with a large resort would be omnipresent.

5. What is the overall impact of the Jumbo Glacier Resort at build-out on Invermere and Surrounding Areas in the area of Air Quality?

Invermere and Surrounding Areas refers to the City of Invermere, and Toby Benches, Panorama, and Rushmere.

Attached is relevant research on Air Quality.

Score (0 out of 10): 4.5

Rationale for your score: I am unsure how much vehicular pollution and woodsmoke would actually affect Invermere.

6. What is the overall impact of the Jumbo Glacier Resort at build-out on Invermere and Surrounding Areas in the area of Water Quality?

Invermere and Surrounding Areas refers to the City of Invermere, and Toby Benches, Panorama, and Rushmere.

Attached is relevant research on Water Quality.

Score (0 out of 10): 1

Rationale for your score:

Given the ongoing issues with Panorama and water quality/sewage issues in Toby Creek, and the ongoing issues of water quality with recreation properties adjacent to Lake Windermere, and even the ongoing issues with escapes from Cranbrook's sewage ponds, one can only assume the same 'tragedy of the commons' will occur with Jumbo, where, despite everyone's heartfelt assurances, and possible best intentions, there will still be the sewage from 6500 being dealt with in a tight, steep valley. Poop, like water, tends to find a way out into the environment. Let alone the salt runoff from the glaciers, for which there is no way of controlling runoff (this will be required for any summer skiing) Downstream water users, from fish to people, will undoubtedly suffer.

7. What is the overall impact of the Jumbo Glacier Resort at build-out on Shuswap Lake Band in the area of Air Quality?

Shuswap Lake Band refers to the local Invermere First Nations community located at the Athalmer Road exit off of Highway 93/95, the primary access to the Jumbo Glacier Resort Project.

Attached is relevant research on Air Quality.

Score (0 out of 10): 4.5

Rationale for your score: Same as above

8. What is the overall impact of the Jumbo Glacier Resort at build-out on Shuswap Lake Band in the area of Water Quality?

Shuswap Lake Band refers to the local Invermere First Nations community located at the Athalmer Road exit off of Highway 93/95, the primary access to the Jumbo Glacier Resort Project.

Attached is relevant research on Water Quality.

Score (0 out of 10): 1

Rationale for your score:

Same as above

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12.

**Survey Questions:**

1. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in the area of Protection of Environment including impact on wildlife (quality of wilderness experience in the Jumbo Creek Valley and surrounding drainages)?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Protection of Environment.

Score-0

#### Rationale

Protection of the pristine wilderness is of paramount importance. Landscaping etc., can not substitute for the real thing. This is the most important factor in the total development.

2. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in the area of Access to Outdoors Recreation?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on Access to Outdoors Recreation.

score-5

#### Rationale

Accessibility will be significantly changed allowing virtually anyone to have access. While this may be undesirable it will improve the situation for wilderness seekers.

3. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in the area of Visual Impact of Resort?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Visual Impact of Resort.

Score- 1

#### Rationale

Development will ruin the natural surroundings meetings leaving scars that would be apparent even if the project is never completed.

4. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in the area of Overall Impact on Jumbo Creek Valley (Noise, Congestion, Pollution)?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Overall Impact of Jumbo Valley.

Score- 1

Rationale

Limited access will result in crowded conditions, exposing the limitations of the complex, particularly on the bad weather conditions. The aim is to enjoy the wilderness and wildlife but the final result may be just the opposite.

5. What is the overall economic impact of the Jumbo Glacier Resort at build-out on Pre-Resort Recreational Businesses?

Score –3

Rationale

The impact would be significant but will no doubt present opportunities for business. Experience in other locations has shown that a shortage of economical accommodation can result in staffing problems for businesses which could negate any benefits.

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13.

1. What is the overall environmental impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in terms of quality of wilderness experience?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers,

outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Protection of Environment.

Score (0 out of 10): 1

Rationale for your score: Previously there was a wilderness experience in the valley, with a resort there is not.

2. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists' access to outdoors recreation?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, rafters, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on Access to Outdoors Recreation

Score (0 out of 10): 3

Rationale for your score: While access is improved in some areas (namely, if you want to pay for a lift ticket), it is for a different type of experience than that which existed before. Also, the bureaucracy which will be involved to cross the resort is sure to hinder access.

3. What is the overall visual impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists' view of the Jumbo Creek Valley and surrounding drainages?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Visual Impact of Resort

Score (0 out of 10): 4

Rationale for your score: The area is not exactly pristine, but further development can only make it worse, and the night lighting guides don't seem definitive.

4. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists from noise, congestion, and pollution stemming from the Jumbo Resort?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Overall Impact of Jumbo Valley.

Score (0 out of 10): 3

Rationale for your score: Certainly many of these people are trying to get away from these things, and as resorts push further into the wilderness the space available is rapidly shrinking.

5. What is the overall economic impact of the Jumbo Glacier Resort at build-out on Pre-Resort Recreational Businesses?

Pre-Resort Recreational Businesses refers to recreational businesses like outfitters, trappers, and tour groups which operate in the Jumbo Creek Valley and/or surrounding drainages.

Attached is relevant research on Economy ("Resort Employment").

Score (0 out of 10): N/A

Rationale for your score: We're an outdoors club, not economists.

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14.

1. What is the overall environmental impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in terms of quality of wilderness experience?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Protection of Environment.

Score (0 out of 10): 1

Rationale for your score:

Ski resorts are huge. Even in the summer the resort will have a negative impact on the wilderness of the current area.

2. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists' access to outdoors recreation?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, rafters, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on Access to Outdoors Recreation.

Score (0 out of 10): 8

Rationale for your score:

I haven't been to the area but I imagine the road will be improved significantly, so obviously easier access to the same area. Course the area is not the same as it will no longer be the wilderness area it once was.

3. What is the overall visual impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists' view of the Jumbo Creek Valley and surrounding drainages?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Visual Impact of Resort.

Score (0 out of 10): 2

Rationale for your score: Ski resorts aren't pretty, they certainly aren't nicer to look at than the original wilderness.

4. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists from noise, congestion, and pollution stemming from the Jumbo Resort?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Overall Impact of Jumbo Valley.

Score (0 out of 10): 3

Rationale for your score: The pollution (including noise) may not be that significant. Congestion will be significant on weekends.

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15.

1. What is the overall environmental impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in terms of quality of wilderness experience?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers,

outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Protection of Environment.

Score (0 out of 10):

Rationale for your score:

The pre-resort tourists visit this area because it does not have a resort and this is the experience that they are looking for. The resort will only benefit the resort visitors. The existing recreationalists will not be able to do the activities that they did prior to resort development. Backcountry hikers, skiers, climbers will not have the same remote mountain experience since there will be a nearby ski hill. ATV and snowmobiles will not be allowed to access the roads in the area because they will either be closed or have restricted access.

2. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists' access to outdoors recreation?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, rafters, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on Access to Outdoors Recreation.

Score (0 out of 10):

Rationale for your score:

A main driving force behind the recreationalists using an undeveloped area is precisely the fact that there is not the feeling of a nearby resort. The number of trips is lower during the pre resort than after and recreationalists are looking to not have a lot of people sharing their experiences with.

3. What is the overall visual impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists' view of the Jumbo Creek Valley and surrounding drainages?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Score (0 out of 10):

Rationale for your score:

The visuals of the resort stem not just from the strict sightlines but also the perceived sightlines. The general feel from having a resort in the area detracts from the wilderness and recreational experience. There is a huge negative impact of actually being able to see and hear the resort.

4. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists from noise, congestion, and pollution stemming from the Jumbo Resort?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Score (0 out of 10):

Rationale for your score:

Noise, congestion and pollution will all increase because of the proposed resort. All of these have a large negative impact on recreational users.

5. What is the overall economic impact of the Jumbo Glacier Resort at build-out on Pre-Resort Recreational Businesses?

Pre-Resort Recreational Businesses refers to recreational businesses like outfitters, trappers, and tour groups which operate in the Jumbo Creek Valley and/or surrounding drainages.

Score (0 out of 10):

Rationale for your score:

Outfitters, trappers and tour groups will all be impacted by the resort. The resort will remove revenue from them by directly competing with the operators.

1. What is the overall environmental impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists in terms of quality of wilderness experience?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages. Attached is relevant research on the Protection of Environment.

Score (0 out of 10): 1

Rationale for your score:

high "wilderness" value to recreationalists at present, perceived and actual, which would be heavily impacted by road construction and development of Jumbo valley

2. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists' access to outdoors recreation?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, rafters, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on Access to Outdoors Recreation.

Score (0 out of 10): 5

Rationale for your score:

Depending on restrictions that the resort may place on access to the surrounding area via the resort, access impact may be positive or negative. Access is currently easy in the summer, but very difficult in winter. Winter access may improve.

3. What is the overall visual impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists' view of the Jumbo Creek Valley and surrounding drainages?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages. Attached is relevant research on the Visual Impact of Resort.

Score (0 out of 10): 0

Rationale for your score:

As for question 1 - visual impact of resort on wilderness experience will be extreme, given current state of area.

4. What is the overall impact of the Jumbo Glacier Resort at build-out on Pre-Resort Tourists and Recreationalists from noise, congestion, and pollution stemming from the Jumbo Resort?

Pre-Resort Tourists and Recreationalists refers to hunters, trappers, wildlife watchers/enthusiasts, hikers, climbers, backcountry skiers, outdoors enthusiasts, ATV users and so on who currently use the Jumbo Creek Valley and surrounding drainages.

Attached is relevant research on the Overall Impact of Jumbo Valley.

Score (0 out of 10): 1

Rationale for your score:

As for question 1

5. What is the overall economic impact of the Jumbo Glacier Resort at build-out on Pre-Resort Recreational Businesses?

Pre-Resort Recreational Businesses refers to recreational businesses like outfitters, trappers, and tour groups which operate in the Jumbo Creek Valley and/or surrounding drainages.

Attached is relevant research on Economy ("Resort Employment").

Score (0 out of 10): 5

Rationale for your score:

Invermere side of Jumbo will likely see benefits, but no benefits will be derived for West Kootenay (Kaslo/Meadow Creek) side

Appendix B

## Correspondence between the Jumbo Survey Administrator, Stephen Garvey, and survey participants:

To enhance the Survey, all Survey correspondence is anonymous.

Foundation for Democratic Advancement <fdadvancement@gmail.com>

dateMon, Oct 5, 2009 at 8:08 AM

subjectRe: Jumbo Survey Results

hide details Oct 5 (11 days ago)

Hi Stephen

I do not think I will alter any of my scores/rationales.

Where does the 500,000 number come from, in terms of resort recreationists?

I think the 1/2 million number really bumps up the real arguments against Jumbo, in my opinion, for two reasons:

1: 1/2 million visitors to what is currently core backcountry grizzly habitat (in a dwindling population on the verge of 'threatened' status) will have predictable results whose impacts can be seen by looking across the border to the US and across the pond to Europe - there are no bears in areas with this type of human access (developers will always use Banff as the counter-point to this, but with an existing through-corridor all of Banff's heavy use is contained to the equivalent of the Columbia Valley - the main Bow Valley, it is not directed to the back of the Pipestone River, or the Ottertail, for example).

If 500,000 people head into the heart of the Purcells, we will lose grizzly there, which will predictably lead to extirpations from all range to the south of Jumbo as well. It would be good to know what the REAL costs of grizzly recovery have been in the US, where the only way to protect these island and dwindling populations will be to close motorized access. So the real number for how many current recreationists Jumbo Resort will affect needs to be looked at from a much larger perspective, as the impacts will be much larger than just the immediate surrounding drainages. The REAL costs need to be the millions of dollars land managers put into road decommissioning, public consultation,

etc etc, in order to recover grizzly populations if they are allowed to be fractured. This is what the Province and the developer cannot seem to understand - the geographical location of the proposed resort is the issue, not the structure itself (witness the lack of opposition for Kicking Horse and Revelstoke expansions - resorts ATTACHED to existing communities, with access and infrastructure already in place, for the most part).

2: Where did the 500,000 figure materialize from? In the well-documented dwindling ski market, it is difficult to see where these numbers of skiers will come from, and how this will not negatively affect recreationists at other resorts ( like Kimberley, which, as it operates dangerously close to the economic edge as it is (according to a friend who runs the largest accommodations outfit there, and to friends who have worked up there for years, and who are facing layoffs this winter as it is, will likely shut down, or curtail operations as a certain percentage of thier clientelle changes their plans to visit "resort #20" in the area. This greatly increases the numbers of current recreationists that are negatively affected by the proposed resort.)

If the resort recreationist numbers are to created from some random business forecast, then surely the impacted number of recreationists needs to approached in the same modeled 'if...then....' approach.

Tue, Oct 6, 2009 at 3:34 PM  
subjectRe: Jumbo Survey Results  
mailed-bygmail.com

hide details Oct 6 (9 days ago)

I agree with your comments. They will be added into the analysis and conclusions of the survey results.

Because developers tend to overinflate their projections to get government approval, I estimate that around 30% of the Jumbo developer's projections would likely be accurate-- that would put the number of resort recreationalists into the Jumbo Creek Valley, and surrounding drainages, at 166,500 per year.

Do you think the impact on the area would still be significant?

Another thing, whatever jobs are lost at nearby local resorts such as Kimberley, would be replaced by new jobs at the Jumbo resort. Hence, I see a neutral effect on resort recreationalists. Not to mention, resort recreationalists would have more options for their activities.

Stephen

Foundation for Democratic Advancement <fdadvancement@gmail.com>

dateTue, Oct 6, 2009 at 5:31 PM  
subjectRe: Jumbo Survey Results

hide details Oct 6 (9 days ago)

If Jumbo does force Kimberley, for example to shut down or decrease their season, relatively few skiers from here (locals) is going to be able to A: drive 3 hours to ski and b: afford a gondola ticket, so I would disagree that there will be neutral impacts on recreationists.

They will also have less options, as opposed to more as you assert - the ski industry is in well-documented decline - we cannot simply spread out the skiers without a loss of opportunity - the market is already overbuilt, and something will have to give to allow for the predictable redistribution of skier visits.

166,500 recreationists per year is a substantial increase over your estimated 4000/year currently. This also does not factor in the increase in individuals who will take advantage of better access to:

Jumbo Pass, Paradise Mine, Delphine Creek, Elona Creek, Earl Grey Pass Trail, etc etc etc.. let alone ATV/Snowmombile use increases. Plus there is always someone who will arrive AFTER the resort to offer more services, etc for tourism in the surrounding area, so you will need to add an estimate to what the industry terms 'parasitic' recreation, and the inevitable development that will occur on the other parcels of private land that will benefit from the increased access.

It is important to note that even with the current access, grizzly bear numbers are in documented decline (MoE report March 2007), and that recreation access control is one of the tools land managers use to protect or increase grizzly populations. This increase will have predictable results of increased road/trail closures when the documented grizzly pop. decline is greatly exacerbated by the introduction of a: permanent human settlement and b: dramatically increased human access and recreation pressure.

Wed, Oct 7, 2009 at 12:11 PM  
subjectRe: Jumbo Survey Results  
mailed-bygmail.com

hide details Oct 7 (8 days ago)

Hi,

The 166,500 refers to Jumbo Resort recreationalists. (The number is 30% of what the developer predicts in his Master Plan--555,000 per year). The 70% reduction reflects general overinflated numbers by developers.

Pre-Resort recreationalists are estimated at 4,756.

It would appear that the number of pre-resort recreationalists would likely decrease if the Jumbo Resort went through, due to likely road and trail closures and a less desirable outdoor experience.

In terms of displaced recreationalists from Kimberley, for example, it appears that they would be replaced local recreationalists from the Invermere/Windermere area. (According to Panorama Resorts, the Jumbo Resort is not in direct competition, and in fact would be complementary.)

Stephen

Foundation for Democratic Advancement <fdadvancement@gmail.com>

dateTue, Oct 13, 2009 at 12:35 PM  
subjectRe: Jumbo Survey Results

hide details Oct 13 (2 days ago)

Seems we can spin numbers anyway we like! I think the point is that for both wildlife and for regional economics/impacts it is critical for the discussion around Jumbo to look at the bigger picture, given the scale of the proposed development (1/2 million people predicted) and the pattern modelled by Oberti and developers the world over (where they propose/promise a unique small-scale development, and then, as in Oberti's case with his proposed expanded expansion at Kicking Horse, they plead economic infeasibility and demand more real estate space, etc...)

Oberti has the unique position of being backed by the BC Alpine Ski Resort Legislation, which leaves us (taxpayers) obliged to take over to keep a resort running when it goes into receivership. With Revelstoke going under last year (bought out at 40 cents by I beleive Pattison Group), it is inconcievable that a brand new resort with NO access, many kilometers of new roads to build, etc, and a LONG way from any main travel route will not do the same.

How have you factored this reality into local quality of life (the fact that local contractors will be left hanging with unpaid bills, as Charlie Locke did here in Kimberley, and as Revelstoke Mtn Resort did in Revy)?

Also, with 165,000-550,000 people worth of increased loads on Invermere's already stretched health/police/infrastructure system, how will you factor in the further dilution/loss of services to locals in this analysis?

Tue, Oct 13, 2009 at 2:41 PM  
subjectRe: Jumbo Survey Results  
mailed-bygmail.com

hide details Oct 13 (2 days ago)

Hi,

Thanks for sharing your perspective. As before I made notes of your points, and I will share them anonymously with the other participants.

The economic feasibility of the Jumbo Resort itself, though a valid concern, is not part of the scope of this quality of life assessment. However, we have accounted for economic impacts of the Resort on pre-resort recreationalists and Invermere and surrounding areas (such as additional infrastruture demands as you mentioned) Also, we have accounted for the possibility of a second developement (expansion) of the Jumbo Resort if it did in fact go through. (Silversprings is another case to Kicking Horse where development exceeded the Master Plan document.)

Moreover, I do see grounds for quality of life impact if the Jumbo Resort goes into receivership. Yet the impact must be offset with the possibility the Resort does not go into receivership.

Further, as you mentioned, we will be factoring in the impact on the quality of life of residents of Invermere and surrounding areas due to a more stressed/used infrastructure.

I agree numbers can be spinned in many ways. Though in my opinion, all numbers utilized must be supported by sound reasons. So there are limits, if one wants to make comprehensive, valid conclusions.

Cheers,  
Stephen

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Foundation for Democratic Advancement <fdadvancement@gmail.com>

dateMon, Oct 5, 2009 at 11:19 AM  
subjectRe: Jumbo Survey Results  
mailed-bygmail.com

hide details Oct 5 (11 days ago)

Thanks Stephen,  
My scores are fine.

Another thing to keep in mind is that rarely do resorts ever go to build out or even close to it. The total build out is required for the application process and is often more than what is realistic simply because it is the only opportunity for approval given the process with the government.

I believe it is very likely this resort will only acheive about 30% of its build out over several years thus minimizing the impact and most of those negative statements on the environment and visual landscape.

Tue, Oct 6, 2009 at 3:26 PM  
subjectRe: Jumbo Survey Results  
mailed-bygmail.com

hide details Oct 6 (9 days ago)

Hi,

I agree with your comments. They will be included in the analysis and conclusions of the survey results.

Cheers,  
Stephen

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Wed, Oct 7, 2009 at 2:15 PM  
subjectRe: Jumbo Survey Results--for Pre-Resort Recreationalists  
mailed-bynetidea.com

hide details Oct 7 (8 days ago)

Hi Stephen,

First of all please note my change of ADDRESS: k.linda@maapress.ca.

I think I'll let my scores stand as is. The summary you sent, by the way, only goes to #5.

As for the "central issue" of why pre-resort recreationalists should take precedence over resort recreationlists, is no central issue at all for me except for the fact that less is better. Less people who leave a smaller ecological footprint is better, period. I'd just as soon close off the entire central Purcells to vehicular traffic so that grizzly bear populations have a chance to rebuild. This issue, for me, is not about who gets to play in the Purcells, it's about how much space we've left for the rest of the web of life, from the water and soil on up the charismatic mega-fauna. It's all about habitat. We have plenty, some species don't have enough.

Want me to go on?

Wed, Oct 7, 2009 at 2:28 PM  
subjectRe: Jumbo Survey Results--for Pre-Resort Recreationalists  
mailed-bygmail.com

hide details Oct 7 (8 days ago)

Hi,

I will send you a summary of the survey results for Invermere shortly.

If you have more share please do.

Question: Up to this point, the Jumbo Survey has only been dealing with the

quality of life of human life. Are you suggesting that the quality of life spectrum be expanded to include the wildlife in the Jumbo Creek Valley and surrounding drainages? (Please note, I have reflected upon this idea, and can see merits in it.)

Thanks,  
Stephen

Foundation for Democratic Advancement <fdadvancement@gmail.com>

dateTue, Oct 13, 2009 at 2:42 PM  
subjectRe: Jumbo Survey Results--for Pre-Resort Recreationalists

hide details Oct 13 (2 days ago)

Hi Stephen,

No, my point is that the quality of human life includes or is subsumed by the quality of life for wildlife. For me, the two are inseparable, as well as the quality of water, air, etc, even if no human is using that particular molecule of air or water at the moment (*italics*). What use is a car with a perfect motor if the clutch is shredded? It is a philosophical point, but an important one. As you well know, so many of our conclusions in research are deeply coloured by the questions we ask. I've made it my job to question the questions as much as I can.

Tue, Oct 13, 2009 at 3:07 PM  
subjectRe: Jumbo Survey Results--for Pre-Resort Recreationalists  
mailed-bygmail.com

hide details Oct 13 (2 days ago)

Hi,  
Thank you for clarifying your point. I have made note of it, and will share it anonymously with the other participants.

It appears to me that the correlation between quality of life of humans and quality of life of wildlife is not exact. Though it can be argued that the decline or even extinction of

wildlife in a particular area is a sign of severe quality of life loss for human beings. Yet can that be said for a downtown core of a city where wildlife is non-existent?

Cheers,  
Stephen

Foundation for Democratic Advancement <fdadvancement@gmail.com>

dateFri, Oct 16, 2009 at 12:53 PM

subjectRe: Jumbo Survey Results--for Pre-Resort Recreationalists

hide details Oct 16 (2 days ago)

Stephen,

.... I'd agree that the correlation is not exact between quality of life for different flora and fauna. Yet if an ecosystem cannot support big mammals in particular, why should it be able to support us. Essential ecological services are so deeply intertwined that we remove parts of that system at our peril; that peril is being researched and described by scientists everywhere. Complexity has always represented resilience in any ecological system. Complexity in human culture also will help our resilience in the face of whatever is coming down the pike. I can't help but believe that those of us who know how to go out into the wild or live at the edges of it, test the edges of our psychological and physical limits may have meaningful insights to offer the human species in the face of whatever is coming down the pike.

I think the question of quality of life needs to be viewed with a wide angle lens that takes in the span of time as well as the many layers of our interconnectivity. To take your example of a person in the core of say Calgary, disruptions in the Purcells can cause water issues in the Prairies which can drive up food prices and cause migrations which leave more people homeless or marginalized. Those water issues in the Purcells can come about through contamination of sources or the removal of species that keep other species in check which may then ricochet through the food chain having an impact on all.

Sat, Oct 17, 2009 at 12:43 PM

subjectRe: Jumbo Survey Results--for Pre-Resort Recreationalists  
mailed-bygmail.com

hide details Oct 17 (1 day ago)

Hi,

I agree with the wide lens approach when applying quality of life issues. We feel we have done that within limits.

I am not convinced that complexity of ecosystem is necessary for all ecosystems. For example, as mentioned, the City of Calgary is not dependent on a complex wild ecosystem due to transportation technology etc.,

However, in terms of wilderness experience, I agree with you--complexity is better than less in terms of the optimum complexity for an ecosystem.

The Jumbo Survey Report will be published/posted shortly. I pasted below the concluding remarks:

Cheers,  
Stephen

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Mon, Oct 19, 2009 at 11:10 PM  
subjectRe: Jumbo Survey Results  
mailed-bytelus.net

hide details 11:10 PM (16 hours ago)

Hi Stephen - Apologies for being so slow with my response, but I had a hard time getting into the question about pre-resort recreationalists vs. resort recreationalists, because I don't see this question as a relevant criterion. It's more than likely that ,at their present rate of melt-down, there will be no glaciers on which to ski by the time the resort could be built. The proponent has stated that the project had a 25 year build-out projection! I guess that what I'm saying is that other concerns and criteria are far more significant than this particular question.

Tue, Oct 20, 2009 at 3:00 PM  
subjectRe: Jumbo Survey Results  
mailed-bygmail.com

hide details 3:00 PM (44 minutes ago)

Hi,

I am unclear as to what you are saying. If the Glaciers disappear, there would still be winter skiing conditions in Jumbo Valley. Glaciers or not, there will be lots of snow in

Jumbo Valley during the winter time. So the Ski aspect of the Resort would go on, but not be year round.

Hence, it appears regardless of glacier meltdown or not, there will be conflict between different users of the Valley.

Any questions or comments please send.

Thanks,  
Stephen

Foundation for Democratic Advancement <fdadvancement@gmail.com>

dateTue, Oct 20, 2009 at 8:34 PM  
subjectRe: Jumbo Survey Results  
mailed-bytelus.net

hide details 8:34 PM (13 hours ago)

Hi Stephen - What you say sounds reasonable, but not when one knows a little more about our very unique Jumbo Valley and some history about it. 'Way back in 1982 one outdoorsy local gentleman by the name of Grant Costello was engaged by some branch of gov't to do an on-the-ground study of the conditions in the Jumbo Valley to determine whether or not it would be suitable for ski resort development. The conclusion of said study was that it would NOT be suitable for resort development because there is not enough skiable terrain! The problem ,it seems, was that too much of it is subject to severe avalanche concerns, and that most of it is too steep to provide the variety of terrain required for a resort. Ten years later we get a proposal for a resort/real-estate development based upon using the glaciers to provide the terrain requirement. So the issue has always been terrain, not the snowfall. The glaciers snuggle in against the steep cliffs on the north side of the east-west mountain ridges. When the glaciers become un-skiable, the required skiable terrain will disappear (It's interesting to note that the proponent never did any kind of meaningful studies re glacier meltdown, or of glacier movement) i.e. No glaciers, no skiable terrain; no glaciers, no large-scale ski activity, no matter how much it snows in Jumbo! And we should remember that the glaciers are melting at an incredible and ever-accelerating rate. That's my take.

Tue, Oct 20, 2009 at 10:13 PM  
subjectRe: Jumbo Survey Results  
mailed-bygmail.com

hide details 10:13 PM (11 hours ago)

Hi, thanks for your clarification.

I am aware of the severe avalanche conditions in the Jumbo Creek Valley, having traveled through the Valley in the early spring.

One thing I don't understand, is that since the Jumbo Valley gets lots of snow, why can't the glaciers be replaced with snow in the winter time?

The snow would be quite deep in the area of the glaciers.

Regards,  
Stephen

Wed, Oct 21, 2009 at 9:59 PM  
subjectRe: Jumbo Survey Results  
mailed-bytelus.net

hide details Oct 21 (4 days ago)

Hi Stephen - Snow alone does not a ski-hill make. There has to be a variety of terrain and it has to be safe. The variety of terrain is necessary to provide areas suitable for all levels of skiers, because ski resorts have to cater to families and to all skill levels, from beginner to expert, or they won't attract a wide enough customer base, especially if the real underlying money-maker is the real-estate, which applies to all ski resorts nowadays. And the terrain has to be safe, for obvious reasons. So first of all there is a period of time when the glaciers become extremely dangerous as they melt, and secondly the areas left clear as the glaciers recede may be unsuitable, even if the winter snowfall is otherwise sufficient. And of course we must remember that these changes don't happen overnight, which means that the glaciers and the areas around them would be very dangerous for large numbers of people to be on for a long time even though the area might receive heavy snow and rainfalls. I hope this makes sense. The Columbia Basin Trust has some good info re. how global warming is expected to impact the glaciers of this area.

Sun, Oct 25, 2009 at 3:39 PM  
subjectRe: Jumbo Survey Results  
mailed-bygmail.com

hide details 3:39 PM (17 hours ago)

Hello,  
Thanks for sharing your views. You may very well be right regarding glacier retreat and the impact on a resort in Jumbo Creek Valley.

I was aware of the issue, but did not pursue it because it is the developer's place to determine what "risk" they are willing to take on, and up to the government if it agrees with the risk.

Consequently, we focused on the Resort's quality of life impacts on different user groups. Thanks for your participation.

In deciding whether or not the Resort should be precede, I believe this impact study is relevant. And obviously the economic viability of the Resort is as well etc.,

Regards,  
Stephen