

Ha tlatgi ha kustiyi
**Protecting the Taku Tlingit Land-based Way of
Life**

**Comments on Route Alternatives:
Tulsequah Chief Mine Access Road SUP Application**

May 19, 2000

Submitted to

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1. Introduction

The Ministry of Forests (MoF) District Manager has requested the comments of the Taku River Tlingit First Nation on five proposed site-specific revisions to Redfern's current route for its planned access road into the Tulsequah valley from Atlin. These comments have been requested in order that the District Manager can finalize the route, so that Redfern can conduct its detailed engineering work on its approved alignment in the summer of 2000. A final road design and a construction schedule are expected to be submitted for review in September of this year.

This report provides comments on the specific proposed revisions to the alignment, and on the broader issues of concern raised by the specific realignments, that are posed for the District Manager. Consideration of the specific route options necessarily raises critical issues about information adequacy and preparedness that must be addressed. From the Taku Tlingit perspective there is a relationship between the specific changes in route proposed and the larger issues that cannot be untangled.

At this writing, an application by the TRTFN for judicial review of the issuance of the *Project Certificate* has been heard. No decision has yet been handed down. Our comments in this report are without prejudice to the application for judicial review. These will not be the only comments we will be making on the proposed access road. We expect to comment more fully on the final road design when that is available for review.

The Special Use Permit (SUP) review is being undertaken for a proposed project on Taku Tlingit traditional territory. This is a territory to which our people have undisputed aboriginal title and rights. The project is not simply just "on" our territory—it runs the entire length of the territory from the edge through the heart of it, and opens it all to further resource extraction and wildlife harvesting that cannot be controlled with the measures proposed by Redfern or the government. None of the conditions are in place to protect the rich wildlife resources of the area, or the Taku Tlingit land-based way of life and economy which depend upon them. We will discuss the evidence for this in what follows.

British Columbia does not yet have Taku River Tlingit First Nation consent to proceed with this project. The reason is that there are fundamental problems associated with the road that, while identified in the environmental review, were not resolved as part of that process. They have not been resolved since that time. These problems arise directly from the opening up of the territory without having effective measures in place to protect the environment and Tlingit land-based way

of life. Such measures could be provided through a land use plan that could incorporate protected areas for important wildlife resources, and a treaty that would set out the conditions for using the land for our people and for B.C. Proper planning for access could then be undertaken so as not to be harmful to the ecosystems and to Taku Tlingit land use.

British Columbia's process has it backwards. Sustainable use of forest resources requires that proper planning and protection measures be in place at the start of the process, not the end. If these issues are dealt with first, then there is a meaningful basis for the TRTFN to participate in the detailed planning of the road. Instead, we are being asked to participate in a process which is the reverse of this, and will result in the demise of the animal populations in our land, and an erosion of our ability to sustain ourselves in this territory.

In the circumstances, opposition to the road remains the TRTFN position. We will make suggestions in this report for things to be less harmful to the environment and our land-based way of life, but in no sense are we suggesting that our overall objections to the road would disappear if those things were done.

2. Ha tlatgi ha kustiyi – **Protecting Our Aboriginal Rights & Title**

We use the words "*Ha tlatgi ha kustiyi*" to mean "our land, our way of life". For at least 10,000 years the Taku River Tlingit people have used and occupied the territory that is proposed to be opened up by Redfern's access road. Throughout these centuries, our people have always ensured that our land and resources sustained us. They, in turn, ensured our survival as a nation.

Our people today depend on the continued health of our environment, including our land, water, wildlife (large and small), salmon and other fish, all our plentiful food, berries and medicinal plants, and our strong spiritual connection to it all. The natural resources of the territory affected by the proposed project form a substantial contribution to our domestic economy and the culture of our people. Our land-based way of life requires that we continue to maintain and strengthen our relationship to the land. This means that we have an ongoing responsibility to protect our trails, camps, villages, and spiritual connections to our land and our creator.

It should be obvious why the patterns of Tlingit land use, or Tlingit "habitat" (campsites, trails, gathering areas, villages, grave sites, spiritual places, and so forth) correspond so closely with prime fish and wildlife habitat areas. The abundance and diversity of these resources are how our people survived and continue to survive today.

The Taku River Tlingit First Nation is very concerned about the continued well-being of the wildlife populations in our territory. Although British Columbia has very little information about the fish and wildlife in our territory, it does not take a university degree to realize we now need to act carefully in regard to these resources. Through our intimate understanding of the present condition of the land and the animals, we know that they cannot take much more pressure.

The Taku Tlingit people voluntarily stopped hunting caribou for several years because we knew that these animals were severely stressed from roads and increased sport-hunting in their range. We understand that they need to be managed in an ecologically responsible way. Our elders and ancestors have passed on Tlingit traditional ecological knowledge which we must ensure remains part of all our decisions about the land. This knowledge originates from countless generations of using, managing, and living on, this territory.

The Taku River Tlingit First Nation is concerned that British Columbia is not adequately committed to protect the environmental resources that will be affected by the project, and will continue to allow resource extraction in our territory without proper protection of our land-based way of life.

Science has shown that for ecosystems to survive human occupation and exploitation we must first understand how the land and its natural processes work. We must also understand, well in advance, what it is we need to survive, and be clear that that is all we take. This is why ecosystem-based land planning, prior to allowing unplanned resource extraction, is critical. It will ensure that our land is able to sustain industrial activity while protecting our environment and our people's land-based way of life. BC's approach of allowing resource extraction prior to having the necessary safeguards in place totally undermines this objective.

3. Specific Routing Issues

3.1 SUMMARY OF THE 5 SPECIFIC ROUTE RE-ALIGNMENTS

The SUP Technical Working Group (TRTFN is, by choice, not a member) is recommending changes to Redfern's proposed route alignment as shown in the table below. These changes are summarized in Gartner Lee, and would result in adjustments in approximately 19% of the road corridor.[1]

1 *Review of Road Access Corridor –Tulsequah Chief Mine Project*. Draft final Report. Gartner Lee. April 27, 2000.

The table below shows a summary of the effects of the re-routing according to the Gartner Lee report.

<i>Revision Location</i>	<i>Gartner Lee Summary</i>
Bateman’s Gorge [km 35-37]	<ul style="list-style-type: none"> • move road & bridge to easier, more stable ground with less erosion potential • eliminate large bridge & fill volumes • reduce impact on creek
Nakonake River [km 45-62] switch to north bank of river	<ul style="list-style-type: none"> • move road to less erosive soils • reduction of fish habitat impacts (reduced number of stream crossings) • remove in-stream construction in Sloko • lightly increased potential for wildlife habitat impacts
Heritage Trail [km 73-78]	<ul style="list-style-type: none"> • move road to reduce conflicts with Tlingit Nakina trail • reduce potential impact on grizzly habitat
Silver Salmon [km 83-86]	<ul style="list-style-type: none"> • move road & bridge to more stable ground with less erosion potential • reduce potential impact on grizzly travel corridor in wetlands area
McMaster/Boyer [km 95-100]	<ul style="list-style-type: none"> • move road & bridge to more stable ground with less erosion potential • reduce potential impact on grizzly habitat • reduce potential impact on caribou habitat • move Boyer Ck crossing to potentially less sensitive site

3.2 TLINGIT ANALYSIS OF THE 5 SPECIFIC ROUTE RE-ALIGNMENTS

This section of the report discusses the specific route adjustments identified in the above table from the Tlingit perspective.

Bateman Gorge

The SUP Technical Working Group has proposed a realignment (km 35-36.5) on the basis of a geotechnical investigation of three problems presented by the original route: [1] large quantities of fill material which could impinge on the creek below; [2] potentially unstable rock slopes along the upper end of the gorge; [3] stability of abutments and approaches to the required 80 m long bridge. The new alignment apparently solves these problems, and presents no apparent net change in potential impacts to the sustainability of wildlife resources or our land-based way of life.

It should be pointed out, however, that the Taku Tlingit trail between the Tulsequah and Sloko Rivers runs along the Nakonake valley, and that this trail has not been ground-truthed yet. Previous archaeological assessments have not located this trail, but we have elders who can provide information on it. We believe that, in the vicinity of “Bateman” gorge, this trail is on the opposite bank from the road. It is our recommendation that the trail be ground-truthed in the 2000 field season to determine if any conflicts with the route exist.

Nakonake River

A new alignment along the north side of the lower Nakonake from approximately 45 km to 61 km is being recommended by the SUP Technical Working Group and the proponent. The original route proposed by Redfern follows the south side of the river.

The new route was assessed from the perspective of relative fish habitat impacts, wildlife habitat impacts, and rough estimates of costs of construction (including bridges), maintenance (including snow removal), and deactivation. Separate studies examined these aspects of the project, and the results are summarized in Gartner Lee. [2]

The fisheries habitat assessment in the Gartner Lee report revealed that the north option was preferable for the following reasons:

- impacts to fish habitat from bridge locations are eliminated since both bridges are likely to be clear span;
- fewer intersections with streams and therefore less risk to downstream fish habitat from sedimentation;
- poses lesser risk to important side channel fish rearing and nursery habitat as the quantity and quality of side channels along the south side are superior to those on the north side.

With respect to potential grizzly bear impacts, a comparative analysis of the two routes undertaken by Francis and Gallagher revealed that the north side has markedly increased habitat impacts relative to the south route, for the following reasons:

- diversity of habitat types is greater along the north road option;
- valuable habitat types occur more frequently along the north route;
- there are more feeding opportunities over a longer period of the year along the north option;
- there is more evidence of grizzly bear use along the north option than along the south route;

2 *Lower Nakonake River Alignment Options Analysis Tulsequah Chief Project Access Road*. Gartner Lee. November 1999.

- there are more areas of conflict between the north road option and grizzly bear habitat, and the areas of conflict along the north road option often have limited potential for effective mitigation. [3]

This grizzly habitat study recommended that the original south road option be retained. The observations made by Francis and Gallagher are consistent with Taku Tlingit traditional knowledge which confirms the importance of the Nakonake south-facing slopes as important and well-utilized spring habitat for grizzly.

The north road option also has higher potential impacts to mountain goat. Rescan has noted that winter ranges for this species occur primarily along the upper Nakonake and on south-facing slopes along the lower Nakonake. The TEM suitability maps show significant moderate high class habitat would be intersected by the north road option, as compared to none for the south route.[4]

For similar reasons, the north road option also poses higher potential habitat impacts for moose. Again, Taku Tlingit traditional ecological knowledge confirms the actual use of this area by moose as an important fall rutting ground.

With respect to the cost estimates, the south option is estimated to cost \$3.21 million while the north option is approximately 17% less at \$2.66 million.[5]

The Gartner Lee report concludes that the north road option “appears to be the better choice for the alignment.” This conclusion is based on the following findings:

- from a terrain stability and engineering cost perspective, the north option is preferable;
- from a wildlife impact perspective the south option is preferable;
- from an aquatic environment perspective the north option is preferable;
- mitigation for effects on grizzly bear can be mitigated.

Because there is a subjective trade-off to be made in recommending one route over the other, the Gartner Lee report rationalizes its preference for the north route by downplaying the significance of the risk to grizzly bears

3 *Nakonake Grizzly Bear Patch Habitat Assessment: Comparison of North and South Road Options, Nakonake River (km 44-60)*. S.R. Francis and M. Gallagher. November, 1999.

4 *Lower Nakonake River Alignment Options Analysis Tulsequah Chief Project Access Road*. Gartner Lee. November 1999. pp5-7.

5 *Followup Geotechnical Assessments – Proposed Tulsequah Chief Mine Access Road*. Bruce Geotechnical Consultants. October 29, 1999.

and ungulates. The report states that in such a trade-off situation, Redfern will generally opt in favour of reducing fisheries impacts, and that this choice is,

“predicated on mitigation of wildlife impacts through access restrictions and the generally higher resilience and mobile nature of wildlife relative to fisheries resources.”[6].

This conclusion is not sound, for a number of reasons.

First, it relies without justification on the access management regime to mitigate wildlife impacts. As is discussed in Part 4, the proposed access management regime is almost certainly to be ineffective.

Second, there are regulations to protect fish habitat, but none for wildlife habitat. Using legal liability should not be used as a factor in setting conservation priorities. Only scientific merits should be weighed if bias is to be avoided.

Third, the road is being built according to the *Forest Practices Code*, a set of construction procedures that are explicitly designed to eliminate any fish habitat impacts. Additionally, construction activities will be subject to the Environmental Supervision Program that is to be implemented as a condition of the SUP authorization. Both of these are supposed to ensure there will be no impacts to fish habitat. Therefore, a comparison of the relative unmitigated effects to fisheries habitat along the two routes is not a valid measure for selecting a preferable route, since all impacts are presumed to be eliminated through application of the *Code*.

Fourth, even if impacts to fish habitat are predicted to occur, by what objective standard can Redfern trade these against wildlife impacts, particularly when neither has been quantified? This is not a trade-off easily defended on scientific grounds.

Fifth, a comparison of construction costs is not a valid component of an environmental assessment, and should not be considered when weighing the relative environmental risk between the two options. It may be a consideration for the proponent; it has no place in a route determination on environmental grounds by other affected parties, including government.

Sixth, there is no scientific basis for concluding that grizzlies, for example, have “higher resilience” than fish. In the face of industrial activity and roads in the rest of North America, grizzly populations have shown themselves to be particularly unresilient. The rationale provided here by Gartner Lee also does not account for potential habitat displacement effects.

6 *Lower Nakonake River Alignment Options Analysis Tulsequah Chief Project Access Road*. Gartner Lee. November 1999. p.14.

From our perspective, the potential wildlife impacts are of much greater concern than designated here by Gartner Lee, and cannot so easily be dismissed.

The north road option also corresponds to a traditional trail and trapline currently held by Harry Carlick, a TRTFN member. The use of this trail, and the protection of it and the biological productivity of this valley, are important assets for the future of the Tlingit people. As for the trail on the upper Nakonake mentioned previously, the trail along the lower river should also be ground-truthed this summer.

In a report prepared for the Environmental Assessment Office, Gartner Lee notes that, while the Shazah/Nakonake route is known as “the poor man’s trail” [7], none of the TRTFN maps showed campsites along it, nor did it receive specific mention from any of the Tlingit advisors. The report acknowledges the archaeological potential of the route, especially the north route which “may have slightly higher potential for the presence of cultural material.”[8] The report also acknowledges that the archaeological reconnaissance conducted by Points West Heritage Consulting did identify areas of potential on the west (north?) side of the valley, but these were not field assessed at that time.

The trail, however, should have been identified since it appears in published form, and is well known to some Tlingit elders.[9] Map #1 attached shows this trail. The area today is under recovery from a large forest fire that burned much of the Sloko drainage several decades ago. We expect that it will soon return to its full productive capacity as a mature forest ecosystem.

The Gartner Lee report notes that Tlingit informants expressed concern that construction along the Sloko and Nakonake valleys might result in rock slides into the river and damage fish habitat. The report states that with use of the north road option, “the potential for this occurring has been substantially reduced.”[p.21]

7 The trail was so named because it refers to those individuals who did not own boats for access to the lower river. The only accessible land route is over the Shazah pass, since the lower Taku is almost impossible to access without a boat. Nonetheless, this trail was an extremely important trail to the Taku Tlingit people.

8 *Review of Road Access Corridor –Tulsequah Chief Mine Project*. Draft final Report. Gartner Lee. April 27, 2000. pp.20-21.

9 *The Legacy of a Taku River Tlingit Clan*. Elizabeth Nyman and Jeff Leer. 1993. p.38, 75-79.

However, a technical assessment of the terrain stability comparing the two routes is more guarded about the Gartner Lee report's conclusion.[10] This report notes the following:

- “Although there is more steep rock on the south side of the Nakonake, the majority of these slopes are buffered by a wide bench of gentle to moderate slopes. On the north side, both major sections of steep rock crossed by the road are directly above the Nakonake River, and thus have a higher potential for delivery of road-related sediment to the river.
- “A similar situation exists with regard to debris flow runout. The slopes on the south side have more debris flow tracks (20 cross the road), but about 15 of these run out onto large Little Ice Age fans where present depositional zones do not extend to the river. By comparison, 4 of the 8 debris flow tracks that cross the north alignment are more likely to reach the river because their small active fans extend to the Nakonake floodplain.
- “Although the p-line on the south side crosses more debris flow tracks, the fan with, by far, the highest frequency of debris flows along either alignment is located on the north side in polygon 003#79. Evidence of periodic debris flows indicates that a significant amount of material enters the Nakonake River at this location.
- “It is possible that the north side road is crossed by more avalanche tracks than actually mapped.”

For all the reasons identified above, the proposed realignment along the north side of the Nakonake River is the route that will pose the greatest threat to the sustainability of fish and wildlife resources.

Using the south road option raises questions about the required crossing of the Sloko River. To avoid the sensitive wildlife habitat in the area originally proposed for a Sloko crossing (below the Nakonake confluence), a crossing higher on the Sloko and a bridge across the Nakonake upstream of its confluence with the Sloko, will be required. This issue is discussed further in the next section.

Heritage Trail

The entire route for the proposed road from the Sloko valley at km 60 to the Silver Salmon watershed presents grave harm to the TRTFN. This has

10 “Nakonake North vs South Options Summary: A Comparison of Terrain Stability, Erosion Potential, Terrain Hazards, Constraints and Materials.” J.M.Ryder and Associates. Appendix B in *Review of Road Access Corridor –Tulsequah Chief Mine Project*. Draft final Report. Gartner Lee. April 27, 2000.

been made abundantly clear to the proponent in the past by Tlingit spokespeople.

Conflicts between the alignment and the Tlingit heritage trail were identified in the environmental review, but were not resolved there. The *EAO Recommendations Report* notes that “the TRTFN require that the road route not impact any traditional trail,” and states further that the proponent will ground-truth the location of the historic trail and “relocate the access road to eliminate or minimize the potential impacts.” A commitment was made to address these at the SUP stage.

Further field examination of the alignment in this area was undertaken by Redfern in 1999, and several alternative alignments were identified. On the basis of this work, Redfern has recommended a combination of the original and an alternate segment that would result in 5 crossings of the Nakina trail, down from 7 in the original route.

The attempts undertaken at mitigating the impacts to the trail by reducing the number of crossings are misdirected. The impacts identified in the environmental review, and subsequently ignored in the EAO’s *Recommendations Report*, clearly go well beyond strictly physical conflicts between the road and the trail. Visual and noise impacts of an industrial highway and traffic upon users of the Nakina trail are very significant, and remain unassessed and unresolved. These cannot be mitigated by re-aligning any portion of the road within the confines of the Big Canyon Creek valley.

Even more significant are the spiritual and inspirational values of the trail to the Taku Tlingits. Dewhirst’s report describes its importance:

“They regard walking the trail as a means of reconnecting with their Tlingit heritage and identity. The trail not only leads people physically to the Taku River Tlingit heartland, but also gives them a spiritual experience by walking in the steps of their ancestors through unspoiled wilderness.” [p.34]

In a separate report commissioned by the Environmental Assessment Office, Staples also describes the very real material impacts of the road on the trails:

“The road’s potential direct impacts on TRTFN traditional land use activities are not confined to the road corridor. The proposed road intersects three TRTFN trails, which historically have provided access to camps and harvesting areas in their traditional territory, as well as to the Taku River. This, along with the possibility of ineffective or unregulated road access, suggests that in time the road itself would act as a “feeder” route to these trails, providing hunters, fishers, and other backcountry users still further access into highly valued TRTFN hunting, fishing and trapping grounds. This disturbance is potentially very significant for the TRTFN harvester who use these trails and the camps and cabins they connect. These locations represent some of their most favoured

traditional use areas, and public access to these trails will bring other land uses and competition for fish and wildlife resources directly into conflict with them and affect their harvesting efforts.”

[p.33, report of Lindsay Staples]

The best way to mitigate such impacts, as Tlingit informants repeatedly told Dewhurst and Staples, is to completely relocate the road at a great distance from the trails. This is not achievable within the Big Canyon Creek corridor. It is achievable through using an alternate corridor that would completely eliminate the conflict with the Nakina trail—the Sloko/Gold Bottom Creek corridor.

The Sloko/Gold Bottom Creek corridor was an alternate route to the Big Canyon Creek corridor that was identified by Redfern early in the environmental review, but was not evaluated since it was rejected by the company on the basis of an aerial geotechnical reconnaissance. As a result, the required field work was never done to develop sufficient information for an environmental assessment, resulting in this route escaping environmental review.

Our minority report on the environmental assessment, the *Tlingit Recommendations Report*, identified the fact that an alternate route from the control point south to the Sloko River had been rejected prematurely by the company, without proper environmental assessment, and had consequently escaped any meaningful examination by the project committee. [pp.39-42]

During the review, we requested MELP to present its assessment of the potential wildlife impacts of the Sloko/Gold Bottom Creek. The requested assessment was never provided. MELP’s response simply stated,

“A preliminary review by the Habitat Section of the Sloko alignment indicates steep slopes in the Gold Bottom Creek area where there is high value fish habitat. Without more detailed information on the Sloko alignment, we are uncertain that an environmentally acceptable route could be found... On the basis of the information we have, we cannot see a clear environmental advantage to either route.” [reference]

This is all the evaluation from MELP we have for the Sloko alignment. This statement acknowledges, first, that the required detailed information is not available and, second, that on the basis of this information there is no perceived environmental advantage to either route.

And yet, there was evidence before the project committee that suggested otherwise. Ken Farquharson, an independent engineer who specializes in linear corridor planning, first raised the issue before the committee of the

adequacy of the company's route selection process in October, 1997.[11] He noted the following points:

- proper comparisons of impacts to goat, moose and grizzly habitat between the two options were not undertaken, and it is likely that adverse effects to these are as great or greater on the selected route as the Sloko route.
- Redfern's *Project Report* included an extensive review of aquatic habitat along the Sloko alignment and placed heavy emphasis on the need to avoid damage to fish, even though the application of the Forest Practices Code to road construction is designed to eliminate fisheries impacts.
- "The proposed eastern route from km 60 to 96 is running in the drainages of streams that support as rich a population of anadromous fish (Sloko tributary and Silver Salmon River) as the Sloko/Gold Bottom route which runs in drainages with anadromous fish from km 57 to km 82. If there are to be adverse impacts on fish from road construction, it is possible that the eastern route may have a higher potential for adverse impacts.
- "The possible impact of fish weighed heavily in the Redfern analysis against the Sloko/Gold Bottom route, yet 80% of the salmon that are reared there are harvested by Alaskan fishers. By contrast the wildlife that is harvested in the Blue Canyon/O'Donnel area is 100% harvested by Canadians. One might have expected a greater emphasis on reduction of impacts on wildlife in the analysis."
- comparing the adjacency of wetlands to the two routes, "it is fair to conclude that the eastern route selected has the potential for greater adverse impacts on wetlands than the Sloko/Gold Bottom route."
- there has been no evaluation of the impact of the road on the potential economic benefit to the TRTFN if their historic trails were restored for tourism.

Farquharson concluded that the Sloko/Gold Bottom route would have less impact on the interests of the TRTFN. Among other things, he noted the following advantages:

- the route can be kept away from the Sloko/Nakonake confluence which it is anticipated is an area of traditional use;

11 *Tulsequah Chief Project - Review of Access Road Environmental Issues*. K.G.Farquharson. January 1998.

- route would not affect the traditional trail from Kuthai Lake to the Taku;
- route would have no impact on the fish populations of the Silver Salmon River and Kuthai Lake;
- route would have less impact on wildlife and habitat in areas highly valued by TRTFN (Blue Canyon, O'Donnell valley, Dixie Lake, Silver Salmon area);
- route would not result in as much competition for hunting;
- interference with historic trails is limited to a single crossing of the Telegraph Trail near Little Kuthai Lake;
- the crossing of the O'Donnell River in its canyon section provides a more secure location for restricting access to the new road.

Map 1 attached illustrates the relative impacts with respect to Taku Tlingit interests. The map illustrates our campsites and trails in the vicinity of the Sloko and Big Canyon sections of the proposed route. Buffers to denote zones of sensitivity and to protect the integrity of Taku Tlingit land use have been placed around these features; the size of the buffer being set at 500 m for trails, and 1000 m for campsites.

The map reveals that Redfern's selected route comes into contact with 3 or 4 major trails of importance to the Tlingit—the Nakina trail being one of these. More important than the number of trails, however, or the number of physical intersections, is the extent of close proximity (i.e. interference) of the road and the Nakina trail in the vicinity of Big Canyon, as illustrated in Map 1. The extent of interference (i.e. road within zone of sensitivity) along this segment is approximately 11 km.

The map also shows that once the alternate Sloko route leaves the Nakonake valley, there is only one physical intersection of the road with the Telegraph trail near Little Kuthai Lake.

The important conclusion is that the Sloko/Gold Bottom route:

- was rejected prematurely for unproven geotechnical reasons;
- was not environmentally assessed;
- appears to have significantly less impact on fish and wildlife resources;
- would completely eliminate very serious impacts to present and future use of the Nakina trail by our people and others.

None of the mitigation measures proposed by way of realigning the road through the Big Canyon/Silver Salmon corridor will reduce the impacts to Taku Tlingit use of the area.

Any decision by the District Manager to approve a route through this section at this time will be done with the full knowledge that a proper environmental assessment of alternative corridors has not been performed, and that the selected route, in addition to causing unacceptable impacts to our people, clearly has greater net adverse effects to environmental sustainability than any other available routes. As a consequence, it will be the Taku Tlingit people who use and depend upon the area that will bear the brunt of these effects.

A final issue needs to be commented on—the crossing of the Sloko. A road route up the Sloko from the Nakonake would not necessarily have to cross the Sloko close to the confluence. Conceivably, it could cross the river much farther upstream. This cannot be determined until geotechnical field work is undertaken in the Sloko corridor.

However, somewhere in the vicinity of km 57 to 58 the route along the Nakonake would have to descend to the river for a crossing onto the north side to allow a northerly heading up the west bank of the Sloko. High quality grizzly habitat in the confluence area could largely be avoided by getting the road upslope as quickly as possible.

Silver Salmon & Boyer Creek

Minor revisions to two sections of the road in the Silver Salmon drainage have been proposed by the SUP Technical Working Group. These include km 83-86 along the South Salmon River, and km 93-100 along the toe of Mt. McMaster near Boyer Creek. In both cases the realignments will apparently result in locating the road in areas of greater terrain stability and reduced grizzly and caribou habitat values. We have no comments on the specific realignments proposed, principally because they do not solve any of the critical issues presented to the Taku Tlingit people from a route in this part of our territory.

For reasons described below about the economic significance to our people of the landscape crossed by the road from Silver Salmon north to Spruce Creek, and that both British Columbia and the TRTFN agree that important wildlife resources are placed at risk by the route, we find the entire section of the proposed route from Silver Salmon north to Wilson Creek the most harmful alternative available.

All parties have recognized the substantial wildlife resources at risk from the proposed road, and that the potential impacts from the road are significant. This is especially the case for the proposed route north of the O'Donnel gate. As MELP put it during the environmental review,

“The alternative road proposal north of the proposed access control gate to Atlin is a concern since it will not be gated or controlled. Road restrictions alone are unlikely to prevent use of the road by unauthorized users and increased impacts from hunting and poaching are likely to occur. The road will bisect winter and summer caribou range. Caribou

may be detrimentally affected by traffic on the road. Grizzly bear and moose may be impacted. It is the ministry's view that there is insufficient discussion and consideration of the effects of new or increased access on this route." [12]

We have no information from MELP since that time that indicates their thinking has changed on this issue.

Further, all parties have acknowledged the importance of mitigating these effects to the fullest extent possible. The company and government have proposed that the most effective way of doing this is to control access on the road. Success in mitigating effects of the road on wildlife is contingent, they say, upon the effectiveness of the proposed *Access Management Plan*. This *Plan* is unlikely to be effective, as described below in Part 4.

Quite apart from the *Plan*, however, is a potentially much more effective way of reducing wildlife impacts in the section of road from Silver Salmon north. This is to relocate the road along a corridor separate than that selected by the proponent. Such an alternative exists in the modified Warm Bay route. This would run southerly from the Warm Bay area across the lower reaches of the O'Donnel to the vicinity of Pike River where, following topographic highs, it could link up with the Sloko/Gold Bottom alignment near Little Kuthai Lake.

Despite being a viable alternative, the Warm Bay route escaped proper environmental review. The *Project Report Specifications*, issued to Redfern prior to preparing their *Project Report*, required an assessment of alternative access road routes:

"The proponent must provide adequate information to justify its preferred east route access option. [p.29]

and, further;

"The proponent must ensure that a road route be determined based on an assessment of the potential for habitat impacts for an area within the valley defined from ridge top to ridge top, both to ensure that the route with least impact is selected, and to understand the consequence of the loss of habitat in a larger context..." [p.26]

The *Project Report* did not contain the required information. The data and analysis needed to justify its selection of the Spruce Creek/Wilson Creek corridor were not provided to the project committee. No environmental information was developed about the Warm Bay route prior to its rejection by the company. Despite the recommendation of its own wildlife consultant to include the ecosystem mapping of the Warm Bay corridor so

12 Ministry of Environment, Lands and Parks Review of the Tulsequah Chief Project Report., Nov.6, 1997.

that a comparative assessment of wildlife impacts could be made, this mapping was not done. [13]

A “back-of-the-envelope” calculation performed near the end of the environmental review by the company showed that impacts would occur along only 22 km of new road on Warm Bay route as opposed to 52 km along the Spruce Creek/Wilson Creek route. Key habitat for moose and caribou in the latter valley would also be avoided. Of course, this is a very simplistic comparison, and it overlooks the fact that much higher animal densities and important seasonal habitat are located along the selected route, and says nothing about the relative quality of habitat on each route. Real differences in relative impacts to wildlife will be significantly more pronounced.

The lack of adequate information in the *Project Report* concerning the Warm Bay route was an issue during the environmental assessment. As MELP explained early in the review period:

“To complete this assessment of route alternatives, the Warm Bay and Wilson/Spruce Creek routes should be compared from both an environmental and socioeconomic perspective. There needs to be a comparison of new access with existing access (roads and trails) for important wildlife habitat areas to focus on areas of concern and facilitate mitigation.” [14]

Redfern explained why the Warm Bay route was not included in its *Project Report*:

“In response to concerns expressed by Atlin residents, the Ministry of Transportation and Highways (MOTH), and obvious direction from the Project Assessment Committee as stated in their report specifications, Redfern chose not to pursue further definition of the Warm Bay route.”[15]

Neither of these reasons was properly documented for the project committee. The project committee did not provide such direction to drop the Warm Bay route. The Ministry of Highways, on the basis of a very superficial review, commented only that the route was not recommended, not that it should be dropped. Data supporting opposition from Atlin residents were not presented in reviewable form to the committee, and the modified Warm Bay route would, in any event, have removed the concerns.

Rick Farnell, a caribou biologist, concluded that Redfern’s work,

13 Letter to K.Dushniski from Don Blood. May 10, 1995. 3pp.

14 Ministry of Environment, Lands and Parks Review of the Tulsequah Chief Project Report., Nov.6, 1997.

15 Redfern response document, December 16, 1997. p.2

“failed to identify the importance of the O’Donnel River lowlands as a winter range for the Atlin caribou herd. Local/traditional knowledge of people with long experience in the area clearly indicates that significant numbers of caribou winter in these boreal forest habitats during some years. Moreover, caribou make use of the Wilson Creek/Spruce Creek pass during calving, summer, and fall rutting periods. It should be noted that the road will bisect important ranges used by caribou and the disturbance associated with the road will have an effect on their distribution and activity. Because caribou will have to cross and re-cross the road in the O’Donnel lowland portion of the road throughout the winter months they will be exposed to same road collision problems identified for moose.” (*emphasis added*) [16]

Redfern’s position was taken despite the fact that Dewhirst’s research undertaken on behalf of the company a year earlier showed that many of our people stated that the road should be relocated away from the Spruce/Wilson Creeks corridor because of the serious effects it would have on their harvesting activities. The report prepared by Dewhirst clearly acknowledged the importance of the Wilson Creek/O’Donnel area to our people.

It was only after the *Project Report* was submitted and the review period under way that the Ministry of Highways supplied a “rough estimate” of \$10 million for upgrading the Warm Bay road (although this included the acquisition of two parcels of private land). This estimate, however, was

“...done without field survey or geotechnical investigation. If use of this road is in fact added to the project proposal, this estimate should be reviewed closely.” [17]

A modified Warm Bay route, which would have avoided the community concerns and the land purchase costs, was then appraised by the company at \$7.5 million.

The differential between this very preliminary cost estimate and the company’s estimated cost of \$5.5 million for its preferred route was one of two reasons used in the *EAO Recommendations Report* to rationalize why this alternative was not examined:

“As the alternative access options to the Wilson/Spruce Creek route are considerably more costly and the proponent had not proposed an alternative, the proponent’s preferred option was the focus of final review by the project committee.” [p.35]

The other reason the *EAO Recommendations Report* used to explain why this alternative was not assessed, was that the *Project Report Specifications*

16 *Review of Tulsequah Chief Project Environmental Assessment Studies*. Richard Farnell. undated, 1997. 7pp.

17 David Fisher letter to Norm Ringstad, November 24, 1997.

did not require it. The quotes from the *Project Report Specifications* provided above, however, show this is not true.

To justify its support of the selected route, the *EAO Recommendations Report* relied on a very superficial cost comparison (a consideration irrelevant to the purposes of an environmental review) on the one hand, and an inaccurate statement on the other. In so doing, it opted for the alternative which poses the far greater risk to wildlife resources of the area, and far greater risk to the Tlingit land-based economy. The *Report* acknowledges that,

“the Wilson/Spruce Creek route alignment will create the potential for greater wildlife impacts than would a Warm Bay alternative.” [18]

Despite this, the *EAO Recommendations Report* concludes that the relatively greater impacts are acceptable since mitigation is available. Specifically, the selected option:

1. “would require a more intensive proponent and government-sponsored monitoring and management strategies to ensure that the potential for adverse effects are not significant;
2. both the proponent and the province are committed to ensuring that these strategies are in place; and,
3. the proponent has to provide a written commitment to implement the proponent component of the proposed wildlife monitoring plan for this area.”[19]

In proceeding with the SUP process, the District Manager must bear in the mind that the Silver Salmon/Wilson Creek route that has been selected by Redfern is the route which, on the face of the available evidence, has the potential for the greatest adverse effects to both the wildlife resources affected, and to the Taku Tlingit land-based way of life. This route is not consistent with the goal of maintaining the sustainability of forest resources.

Even if the District Manager accepts this route, he must also assure himself that the conditions outlined above are, first, likely to be effective and, second, will be properly implemented. If the management and monitoring strategies proposed in #1 will not be effective in achieving the desired mitigation objectives, the other two provisions become meaningless.

The key question to be answered then is, what are the “more intensive proponent and government-sponsored monitoring and management strategies” that are proposed to be applied for this section of the road?

18 *EAO Recommendations Report*. p.37

19 *EAO Recommendations Report*. p.34

The *Project Approval Certificate* sets the requirements for Redfern's obligations in this matter. Item 6(a) of the *Certificate* requires the company to satisfactorily implement the environmental management commitments contained in the *Schedule A* documents. The only specific reference in *Schedule A* to the proponent's responsibilities to mitigate access impacts for the road north of the gate is found in Redfern's December 16, 1997, response document. Here there is no commitment, only a notation that if posting signs is not effective in limiting access for the north portion of the road, then it would be possible to add additional access restrictions such as unmanned gates at the endpoints of the 12 km of new road. It further notes that improved and expanded wildlife management and enforcement practices would also be effective mitigation. This reliance upon government's role is contrary to the proposed mitigation provided in MELP's 1998 *Access Management Plan*, in which government's role in mitigation is downplayed. (This *Plan* and Redfern's proposed manned-gate access control are discussed more fully in Part 4 below.)

Redfern is required to implement its *Firearms, Hunting Fishing and Vehicle Use Policy* which strictly forbids mine employees and sub-contractors to travel with firearms on the road. [20] North of the gate there is no effective way of policing this. Further, there is no evidence that such a policy is effective in mitigating wildlife impacts, and in any event, as Horesji points out, this "is an exceptionally difficult policy to enforce." [21]

The result is that there are no meaningful, demonstrably effective company commitments captured in the *Project Approval Certificate* with respect to mitigating wildlife impacts along the Spruce Creek/Wilson Creek and O'Donnel sections of the road.

With respect to monitoring, again the proponent's only commitment, as identified by the *Project Approval Certificate*, is to contribute an undisclosed amount of money on an annual basis to the operation of the ungulates and grizzly bear monitoring programs that will be implemented by MELP. This commitment carries a very high degree of uncertainty as to the outcome. The viability of these programs is described below in Part 6.

3.3 CONCLUSIONS ABOUT THE 5 PROPOSED RE-ALIGNMENTS

In regard to the 5 specific re-alignments discussed above, arguments have been raised by the proponent that, where higher wildlife impacts are to be expected, we can rely on mitigation to reduce these to acceptable levels

20 Redfern Resources Ltd. *Tulsequah Chief Project Firearms, Hunting, Fishing and Vehicle Use Policy*. January, 1998.

21 *Report on the Proposed Tulsequah Chief Mine Road; It's Expected Impacts of Wildlife and Prospects for Mitigation*. Brian L. Horejsi. February 6, 1998. p.4

and that, therefore, other concerns such as terrain stability, construction costs, and reduced fisheries impacts can take precedence in finalizing the route. The proposed mitigation takes the form of an *Access Management Plan* developed by Redfern. It is also proposed that monitoring and regulation to be undertaken by MELP will contribute to this. More effective mitigation, such as alternate corridors, has not been considered.

It has been shown that for all the proposed changes, except Bateman Gorge, the broader issues raised by the act of determining the final alignment—potential impacts of the route upon wildlife and the Taku Tlingit land-based way of life—still have not been addressed. From approximately km 45 onward, where it is now proposed to bridge the lower Nakonake River, the entire selected route is the worst possible route in terms of potential impact on the sustainability of fish and wildlife resources and this, in turn, will clearly affect our long-term relationship with the land and animals here.

The prescriptions identified to support the proposed alignment revisions raise issues concerning:

- access management as an effective mitigation for wildlife impacts;
- monitoring programs to deliver the appropriate information;
- adequacy of wildlife baseline data to understand impacts and operate monitoring programs;
- impacts upon the Taku Tlingit land-based way of life.

Since these issues were not resolved at the environmental review stage, it is incumbent upon the District Manager to set in motion now a process for resolving them *prior* to finalizing the route. These issues are discussed further in the following sections.

4. Access Management

With respect to undoubtedly the most significant direct impact of the project—increased access on wildlife—the *EAO Recommendations Report* both acknowledged the impact,

“The (wildlife) subcommittee considered human access to otherwise inaccessible wildlife populations to have the potential to displace wildlife from their preferred range, disrupt traditional migration routes and seasonal movement patterns, cause direct human-caused mortality through increased licensed and unlicensed hunting and vehicle collisions, and change the relative abundance of wildlife populations.”

and the fact the company had not adequately dealt with it,

“The wildlife subcommittee determined that the *Project Report* did not adequately address the potential impact of increased access on wildlife

populations; consequently, further impact mitigation strategies were developed as described below.” [p.59]

According to the *EAO Recommendations Report*, there was consensus on this among the full project committee:

“All project committee members acknowledge that resource access into undeveloped or substantially undeveloped areas presents difficult resource management challenges. In particular, there is potential for significant direct and indirect adverse impacts on wildlife habitat populations (sic) if access is managed improperly.” [p.55]

While the proponent never made any specific predictions relating to increased wildlife harvesting caused by their project, it acknowledged that access can be harmful if it allows wildlife populations to be over-harvested, and that,

“there is adequate documentation of this effect in various parts of the province, particularly in the case of vulnerable species like mountain goat and caribou” [*Project Report*. Vol.V - pp.3.37]

The *Project Report* cites a study (Henderson and Fox, 1987) which reviewed the problem of access and wildlife protection in northern B.C. and noted a number of cases where population declines have apparently occurred as a result of new access.

The *EAO Recommendations Report* notes that a number of wildlife issues resulted from the environmental review and that “resolution of many of the outstanding issues depends upon successful implementation” of the various monitoring plans that comprise the *Environmental Follow-up and Monitoring Program*. [p.60] The usefulness of the proposed monitoring programs for this purpose is described in Part 6 below.

Additionally, the *Report* concludes that “there are also a number of wildlife issues that the TRTFN have raised that may be further addressed through discussion between government and the TRTFN.” This statement acknowledges that there were, at the termination of the review period, still unresolved wildlife issues that had been raised by us. Since further discussion on these between the Crown and TRTFN has not resolved any of these issues, these concerns remain to be dealt with, and are now squarely before the District Manager.

The *EAO Recommendations Report* ultimately took the approach that, even though the review process did not produce a good assessment of impacts, the solution was to mitigate whatever impacts might occur. This is the old approach to permitting that the *Environmental Assessment Act* was designed to avoid. It raises the question as to why even conduct an environmental assessment if, at the end of the process, the impacts remain unidentified and unassessed, and the way of resolving these is simply to pass the issues on to the permitting stage? Nonetheless this is the approach used here by the EAO.

Consequently, only the following specific, speculative strategies were recommended:

1. Redfern's *Access Management Plan* (includes manned control gate at O'Donnel; plus firearms restriction policy for employees and contractors);
2. access restrictions through various legislative/regulatory mechanisms;
3. regulations under the *Wildlife Act* coupled with consent of Tlingits to limit their hunting in the "entire project area";
4. greater government investment in monitoring and enforcement.

A comment is needed respecting #3 above. British Columbia proposes that the Taku Tlingit people voluntarily limit our rights and use of the areas we currently harvest in. Without improvements in the overall management regime to protect wildlife resources, this would only serve to worsen the effect of the project since, not only would we bear the brunt of wildlife population declines that will result from the new access, we would no longer even be able to harvest in the areas that we currently depend upon.

Because we have uncontested aboriginal harvesting rights over the territory in question, any such arrangement to limit these rights would need to have our consent. The Supreme Court of Canada has made this clear. However, British Columbia must understand that the Taku River Tlingit First Nation would only look at regulatory change and co-management approaches as part of an overall plan for protecting the sustainability of wildlife populations and our land-based way of life. It does not make any sense for us to agree to limit our rights without the larger issues of sustainability being adequately addressed.

Since mitigation of effects has been clearly recognized by all parties as an overarching necessity for managing this project, the District Manager must have a high degree of assurance that the proposed mitigation will be effective. Much reliance has been placed on the *Access Management Plan* to deliver the goods. This section of our report discusses evidence that was produced during the environmental review, plus additional evidence produced by the TRTFN since that time, regarding the most central aspect of the *Plan*—controlling access.

A key component of Redfern's *Access Management Plan*, which applies essentially only to the south half of the road, is a manned gate near the O'Donnel River to control access. The difficulty with this proposal is that controlled gates are an unproven technique for mitigating wildlife impacts. Further, there is every indication that they have not been able to prevent impacts to wildlife populations or habitat in places where they have been used.

This was clearly acknowledged by MELP during the environmental review. In previous instances where gated roads have been utilized at the request of government to control unauthorized access there have been no logs kept, or monitoring data collected, or any other information which would demonstrate their effectiveness in protecting wildlife. No party in the environmental assessment was able to provide any data which showed the effectiveness of manned gates to achieve this objective.

MELP was clear on the risks associated with the proposed mitigation, at least for grizzly bears:

“There is also the possibility that restrictions on access during the operation of the Tulsequah Chief mine will not be effective and that mortality of bears will increase over current levels because of illegal harvest and greater direct loss, degradation, alteration, and alienation of habitat.” [22]

From an anecdotal survey of 11 controlled-access roads in the province, Redfern concluded in the *Project Report* that the most effective way of controlling unauthorized access was through manned gates, but that no conclusions could be drawn as to their effectiveness in protecting wildlife.

Apart from the technical issues surrounding the effectiveness of gated roads, there are the political ones, which only serve to weaken the case that these will be effectively implemented. As one former operator of a controlled-access road in northern BC stated in the Redfern survey,

“Real commitment by government is critical to the success of implementing access management strategies. Budget is always a critical issue for increased enforcement. Consideration to a fund to ensure money will be available for management is recommended. Reliance on an existing budget is not possible [in] the present economic climate.”[Rescan survey, *Tulsequah Chief Project Report*]

As a result of the difficulties facing the project committee regarding access management, the issue was also referred to the provincial Land Use Coordinating Office for review during the environmental assessment. LUCO’s report did not recommend the use of gated roads, since it concluded that physical access control and hunting regulations are unlikely to be effective:

“Evidence to date suggests that these measures (physical barriers and hunting regulations) have been largely ineffective where there is potential for high hunting pressure in areas of productive wildlife habitats, such as in the Tulsequah-Taku area.” [p.13, LUCO Report]

Despite the apparent ineffectiveness of controlled access generally, doubt was also raised about the specific location proposed for Redfern’s gate at

22 Ministry of Environment, Lands and Parks Review of the Tulsequah Chief Project Report., Nov.6, 1997.

the O'Donnel River. It was generally recognized by the project committee that access to the road south by all-terrain vehicles and snowmobiles, and possibly 4-wheel drive vehicles, would not be prevented at this site. In MELP's words at the time,

“Placing a manned gate at the O'Donnel River crossing will not stop access into this area. The proponent should consider the effectiveness of the proposed location for the gate with regard to existing access considerations.”

[Item 1.1.13, Issues Tracking Table, *EAO Recommendations Report*]

All of the above uncertainties were before the project committee before the review was terminated, but were not resolved at the end of the day. The TRTFN minority report discussed these issues at length, and showed that the issues had not been resolved. The inadequacies of the access management controls to protect wildlife resources were part of the reason we recommended at that time the project not proceed.

Subsequent to the environmental review, we had the issue examined by an acknowledged expert in the field. Dr. Brian Horesji provided the following comments about the inherent difficulties, and the experience to date, of regarding the success of controlled access schemes. His report is attached.

“Control of human use when access is provided is near impossible particularly when it is understood that it takes noncompliance by only a small percent of users to result in direct illegal or licensed mortality, to act as reinforcement for behaviour and stimuli that lead to harassment and displacement, and to produce incremental impacts that result in changes in movement, distribution and reproductive success...

“Road inventory and access management are very low priorities for today's land and wildlife management agencies. This includes British Columbia's public land managers who either have no road inventory data base or have not made it public. Yet it is widely acknowledged that the major causes of habitat fragmentation are roads, and fracturing of habitats and ecosystems is one of the two major threats (along with human occupation of wildlife habitat) to biodiversity in today's world.”
(emphasis in the original) [23]

With respect to the incremental and cumulative impacts arising from vehicles such as ATV's and snowmobiles, Horesji states,

“This is a group of users that exploit road access, are near impossible to police, have a substantial impact on wildlife, and can easily circumvent point sources of access control.” *(emphasis in the original)*

23 *Report on the Proposed Tulsequah Chief Mine Road; It's Expected Impacts of Wildlife and Prospects for Mitigation*. Brian L. Horesji. February 6, 1998. 29pp.

On the overall effects of the road, Horesji is clear about what can be expected:

“Road access dramatically increases the impact of so called regulated hunting but just as significantly it opens the door to uncontrolled mortality that typically assumes an ever increasing impact as a wildlife population declines... What the road will do, for the first time in the history of man, is begin to ecologically, physically and essentially permanently degrade the ability of the habitat in the region to sustain wildlife populations; until this time the integrity of this ecosystem has remained relatively unimpaired even though exploitation of some wildlife populations (such as mountain goats and grizzly bears by commercial outfitters and localized sheep, moose and caribou populations by early and persistent mining community) has depleted those populations in number and possibly genetically.”

In its December, 1998, *Tulsequah Chief Road Access Management Plan*, MELP lays out the following features:

- restrict the plan to controlling access, as opposed to changing the regulations for activities such as hunting and fishing;
- placed the manned gate as close to Atlin as possible;
- restrict use of the road to only mine-related business;
- use temporary gates during construction until a manned gate can be established;
- monitoring and enforcement of access provisions to be left entirely to Redfern;
- enforcement of environmental regulations to be responsibility of new conservation officer (pending funding);
- monitoring of fish and wildlife populations, mortality and access effects to be responsibility of biologist located in Atlin (pending funding);
- road to be deactivated when project is completed; and a deactivation plan to be prepared.

The above elements do not add up to an effective plan to mitigate potential impacts to wildlife. First, two of the four options previously recommended in the *EAO Recommendations Report* (#2, #3 listed above) have been dropped.

Second, rather than change regulations respecting sport-hunting in the area, the government is content to let Redfern take all the responsibility for minimizing wildlife effects through its control gate. During the environmental review MELP was clear that actual changes to wildlife populations had to be detected before regulatory change could be implemented. This is not encouraging—action that can only be taken once the impacts are observed to be occurring may be too late. Further,

acknowledging the shortage of good information, the MELP *Plan* states that to change regulations would,

“require more information about the location of the road, its anticipated impacts, the access control developed, consultation with the TRTFN and user groups, and the resources to undertake regulation change.” [p.2]

and then relies upon this lack of information as a justification to not pursue a regulatory approach to access management.

Third, as Horesji points out, to not legally restrict hunting is a recipe for disaster:

“When a wildlife population reaches that threshold of viability where it cannot sustain any mortality without being propelled toward extinction, unplanned, uncontrolled mortality from the many incremental causes I’ve discussed, and disruption of processes and habitat from the many incremental impacts associated with a proposed project like Tulsequah Chief, moves the future of the wildlife community out of the realm or reach of regulatory influence. At this point any licensed mortality is a serious threat and probably has been a threat for much longer than is typically acknowledged, particularly given the high level of uncertainty in accurately estimating wildlife population size.” (*emphasis in the original*) [Horesji, p.8]

Fourth, by recommending relocation of the gate north from the O’Donnel, more road south of the gate can now be much more easily accessed by 4-wheel drive and all-terrain vehicles, and snowmobiles. There is no apparent effective location north of the O’Donnel to achieve the high level of control required.

Fifth, by moving the gate north, and preventing our people from accessing the Tlingit traditional hunting areas in the Blue Canyon area, the proposed plan will have unacceptable consequences to our contemporary land use and domestic economy.

Sixth, monitoring and enforcement of environmental regulations are tentative only, and British Columbia to date has not committed the funds to finance what is required to construct, operate, and close the project safely.

All of this is particularly critical given the situation at hand. Horesji emphasizes the theme stated previously by the TRTFN during the environmental review:

“Surviving wildlife populations in the Atlin area have already been subject to, in some case, dramatic cumulative effects from market hunting at the turn of the century when the region was home to about 10,000 people. During this time entire populations of sheep, goats and caribou were severely reduced in size and distribution. Lost with these declines were genetic diversity and behavioural knowledge and traditional movements that had developed within populations over thousands of years. The saving grace for regional wildlife populations, however, was that habitat was not permanently impaired by human

intrusion and modification. Road access would change that; it would introduce an ecological and behavioural constant that has never existed in the major portion of the project area. Where habitat modification does exist in the Atlin area there already are wildlife conservation problems and conflicts.” [Horesji, p.6]

Given the deficiencies in the proposed measures, coupled with the existing serious situation for many of the wildlife populations in the area, MELP’s *Access Management Plan* is unlikely to be an effective means of mitigating wildlife impacts from the proposed road.

Because virtually all the rationalizations for acceptance of the proposed route which have been made to date by the proponent and MELP are so intimately connected to access management as the means to protect wildlife, it is essential that the District Manager have a high degree of certainty that the proposed plans will do the job required. It is challenging, on the strength of the evidence we have before us, to see how route finalization and construction approval can be made on any technically defensible grounds. TRTFN insists that these issues be treated responsibly and thoroughly, and we fail to see how this would be possible given the analysis done to date by government.

Quite apart from access management, the other mitigation measures proposed thus far also fall short of having any kind of an effective regime in place to protect the sustainability of wildlife resources that the Taku Tlingit land-based way of life depends on. This is discussed in the following sections.

5. Adequacy of Wildlife Baseline Data

At the outset of the environmental review, the Ministry of Environment, Lands and Parks put it succinctly,

“One of the greatest ministry concerns with respect to access into the area is the potential for increased legal and illegal harvest of game animals and the impact this will have on wildlife populations. As a result the ministry will require Redfern to collect information to develop a baseline from which impacts can be monitored should the road be built.” [24]

The required information was never delivered, resulting in approval of the road being based on a totally inadequate assessment of the potential impacts to key wildlife species such as grizzly bear, mountain sheep and goat, moose and caribou. The inadequacy arises, in the first instance, from incomplete baseline information on the numbers, distribution, and

24 Memo to Norm Ringstad from Garry Alexander and Doug Dryden, 21 June, 1995, in Appendix 4, PRS.

movements of these animals over the landscape to be affected by the project. There is clear acknowledgment among all parties that such is the case, since an explicit component of the proposed monitoring programs is the requirement to collect additional baseline information prior to the project being constructed.

The subject has been reviewed at length in the *Tlingit Recommendations Report*, and was adequately presented to the project committee through four independent reports available during the environmental review. [25]

Following issuance of the *Project Certificate*, TRTFN had all the available information regarding adequacy of the wildlife baseline reviewed by independent experts. These experts corroborated the findings of our *Tlingit Recommendations Report*. For example, Dr. David Shackleton commented,

“For most species, I do not believe that sufficient wildlife data have been collected by the proponent to present a reasonable understanding of the wildlife resource baseline. This is because 1] the survey data are basically reconnaissance-level and are methodologically flawed, 2] the proponent relies heavily on broad-scale habitat capability/suitability map information, and 3] no data were collected from any control site.”

and, further, regarding the impact predictions made,

“In my opinion the data are insufficient to yield a reasonably accurate understanding of project-related changes to wildlife and wildlife habitat in the area. However, setting aside deficiencies in the data for the moment, my assessment is that the data analysis and interpretation also have significant shortcomings...As a result, they could not yield a reasonably accurate understanding of project-related impacts on wildlife and wildlife habitat in the area, even if the data were adequate.”

In commenting on the significance of these deficiencies, Shackleton states,

“These deficiencies are very important. As a result of the limitations identified here and in the four independent review reports, I am at a loss to understand how the data provided can, or will, be used to monitor population-level changes, other than at an extremely crude level... In summary, I fail to see how the sampling design, sample effort and resulting data, allow the impacts to be assessed with any degree of confidence.” [26]

25 See *An Evaluation of Wildlife Research Related to the Tulsequah Chief Mine*. Alejandro Frid, Boreal Research Associates. October, 1997; *Review of Tulsequah Chief Project Environmental Assessment Studies*. Richard Farnell. undated, 1997. 7pp; *Tulsequah Chief Project Review*. Joanne Siderius. November 1997. 14pp; *An Evaluation of Rescan's Environmental Assessment of the Proposed Tulsequah Chief Mining Development*. Norm Barichello. October, 1997. 8pp.

26 *Report on Tulsequah Chief Mine Concerning Wildlife and Wildlife Habitat Information and Prediction of Impacts*. David M. Shackleton. February 1999.

Shackleton's report is attached, as are the reports of Messier and Horesji who also comment on the baseline data problem.

The inarguable conclusion is that we do not have the information on hand for us to have a reliable picture of wildlife resources as they exist today on the landscape. Since we do not have a reliable picture, we have been unable to develop a reliable prediction of the type and severity of the potential impacts that are likely to result. Again, this is explicitly confirmed in MELP's 1998 *Access Management Plan* described above.

The necessity for the TRTFN, in addition to government, to have good wildlife information prior to accepting the proposed road was emphasized by Staples:

"In the absence of reliable baseline data for wildlife species harvested by the TRTFN, both in the corridor and throughout their home ranges, the significance of the environmental effects associated with the road's construction, operation, abandonment and presence is very uncertain and raises many questions. Much is left uncertain and unknown about the relative impacts of one routing option over another. The lack of baseline information and range information prevents comparison of different routes or an evaluation of the strategic value of a particular landscape habitat within a larger landscape ecosystem and home range, and the significance of its loss or disturbance... In the absence of baseline data and multi-year data, which can provide an indication of environmental change and wildlife population dynamics, the wildlife information provided by the proponent is understandably limited, both spatially and temporally. It offers little information upon which to base reliable assessments of the significance of potential impacts, programs to monitor change, and mitigation and adaptive management strategies that can be employed in a timely and effective manner."

[pp.6 and 12, Addendum of Lindsay Staples]

Such information is critical for both impact assessment and for route selection. Instead, the EAO and provincial government have attempted both these exercises without the necessary information to plan the route properly. Since there is no robust analysis of wildlife impacts, and no meaningful plan to deal with them, there is no basis for deciding upon a route that will not cause severe harm. The District Manager has an impossible job to do here, since he has no certainty about the ecological consequences of his decisions, or about the effectiveness of the tools that have been recommended to him.

One of these tools is monitoring. Monitoring has been proposed in the *EAO Recommendations Report* as one means of mitigating impacts. There are several essential elements to an effective monitoring program, but foremost among them is the availability of a reliable baseline. Without this, any monitoring program will be useless.

The environmental review ended with no reliable wildlife baseline in hand. After the *Project Certificate* was issued, British Columbia committed to conducting baseline surveys. Nothing was done in the 1998 field season, and field work only commenced in June of 1999. At this writing, funds for the year 2000 field season have not yet been released by B.C.'s Treasury Board. As a result, field work has been delayed or sporadic, inexperienced personnel (eg. no grizzly bear expert being used in grizzly collaring project) are being utilized, study designs have not been prepared, and an overall coordinated program of activities is not being conducted.

No useable results from the wildlife survey have been presented at this point. Additionally, though we have requested it on numerous occasions, MELP has not presented a study design which describes the field surveys, and how the results are to inform the monitoring program. It is therefore impossible to evaluate the work being undertaken and, therefore, to know how it will be used for mitigating and managing impacts to wildlife and the Taku Tlingit people.

We have requested an update of the field work results to date, and have asked for confirmation as to when the work will be completed and available for review. MELP has responded to the request by stating that,

“These studies will not be completed for some time, and a completion date is uncertain in part because of the delays in project construction. This is a benefit to these studies in that we will be able to have a better “before development” picture of wildlife distribution and abundance.”[27]

This statement is confusing, since it states that completion of the work is somehow geared to construction timing—i.e. delays in construction imply delays in the work getting done, and the longer the delay, the better “before development” picture we will get.

In any event, the key point here is that two field seasons have now passed and there is apparently no new wildlife population information or analysis available to help the District Manager make a technically defensible determination in finalizing the alignment. Additionally, even though some new terrestrial ecosystem mapping has been conducted, our understanding is that this is only a small portion of the mapping required for proper coverage.

Since no adequate baseline was produced during the environmental review, and since no additional useable baseline information has been presented to date, the District Manager is left in a situation where any decisions he might make will remain uninformed about their consequences on the sustainability of wildlife and the Tlingit way of life that depends

27 Letter from Jim Yardley to Susan Carlick, February 23, 2000.

upon these resources. Given this situation, the District Manager cannot knowledgeably make a decision that will:

- minimize the adverse consequences to wildlife resources;
- maximize the sustainability of forest resources;
- prevent impacts to Taku Tlingit people from depleted animal populations;
- prevent impacts to Taku Tlingit people from increased access and competition in our territory;
- ensure that our continuing ability to use the land will not be interfered with or diminished.

Further, the available information cannot provide any assurance to the District Manager about the ability of monitoring to deliver useful information for managers. (Deficiencies in the design of the proposed monitoring programs are described in Part 6 below.)

It is important for the District Manager to understand that deficiencies in wildlife baseline data go well beyond the simple necessity of knowing what populations of animals are put at risk by increased access, or even informing the design of an appropriate monitoring program. They go well beyond this, to the heart of understanding how immensely important healthy and viable wildlife populations are to ensuring Tlingit economic and cultural well-being. Ultimately, the Taku Tlingit people's assessment and acceptance of the risk posed by the access road is tied to having an adequate understanding of the ecosystems and the wildlife that stand to be affected.

As Dewhirst and Staples have documented, and as the MoF review (discussed below) of this material should have acknowledged, it must be recognized that detrimental changes to the health and viability of fish and animal populations and their habitat will directly and materially affect the Taku Tlingits' ability to utilize the resources they depend on. Harvesters will either be displaced from formerly productive resource harvesting areas, or will have to exert greater effort in locating scarcer resources as a result of competition from non-Tlingits. In turn, diminished or displaced land use activity will translate into detrimental change in the continued well-being of Taku Tlingit contemporary life over the longer term. All aspects of our way of life, therefore, are directly dependent upon the maintenance of the abundance (i.e. numbers) and diversity (i.e. richness) of plant, fish and wildlife populations, and the ecological processes and structures that enable them to survive and flourish.

This explains the Taku Tlingits' central concern about wildlife issues arising from the proposed road. The route will impinge upon animal populations and habitat, and these will require special attention and resolution as part of our decision regarding the overall environmental acceptability of the

project. At the core of this, the need for our people to have received, from the environmental review, a clear picture of the present condition of wildlife resources in the area to be affected, to have meaningful predictions about the types and scales of impacts that were likely to occur, and to have assurances that effective mitigation measures, monitoring and adaptive management strategies will be in place to handle the impacts, is paramount. None of this information is before us, or the District Manager.

Further, without an adequate baseline, the monitoring programs as proposed by MELP become essentially meaningless. The fact that wildlife monitoring is supposedly a cornerstone of the proposed mitigation package for wildlife impacts, and therefore for achieving sustainability of forest resources, presents a serious difficulty for the District Manager.

6. Monitoring

The *EAO Recommendations Report* states, in referring to the management of impacts upon wildlife, that:

“Monitoring will be a key component to assess the success of mitigation measures or the need to implement additional contingency measures.”

Monitoring programs for ungulates and grizzly bears are part of the mitigation “package” relied upon by Redfern and MELP to rationalize the acceptance of wildlife impacts, and to allow trade-offs between these and fisheries impacts, in finalizing the road alignment. It is necessary, therefore, that the District Manager satisfy himself that the proposed monitoring programs are likely to achieve the desired results.

Monitoring programs have three essential elements necessary to render them effective tools for wildlife management. First, there must exist an adequate baseline data set so that future changes can be measured. As we have seen in Part 5 above, this condition has not yet been met.

Second, the program itself must be designed so that it can, first, detect significant changes in animal populations or habitat and, further, discriminate between natural variation and project-related causes. Two wildlife monitoring programs have been proposed: an ungulates monitoring program; and one for grizzly bear. In addition to satisfying himself on adequacy of baseline data for monitoring and mitigation purposes, the District Manager must satisfy himself that effective programs have been designed which will deliver meaningful information for managers. This issue is discussed below for each of the two programs, both designed by MELP.

Third, there must be a management system in place which can analyze the data produced by the monitoring program and, most importantly, take corrective action when and where required. Without this element, the monitoring program will be useless even if it is correctly designed, has a

robust baseline data set, and is generating relevant data. If monitoring results do not inform adaptive management, the program is irrelevant to the protection of the attributes being monitored. The District Manager must assure himself, therefore, that there is in place a competent management regime that will be able to interpret, and act on, the information produced by the monitoring program.

6.1 UNGULATES MONITORING PROGRAM

It was left to MELP to design the ungulate monitoring program, and one was produced in the last few weeks of the environmental review.

At the time, we reviewed this and informed the project committee that the ungulates monitoring plan was not acceptable. It was technically unsound both as an effective tool for discerning road-related impacts, and for formulating adaptive management strategies to deal with impacts once detected. The specific deficiencies in the plan were identified as follows:

- lack of adequate baseline information;
- no definition of the hypotheses required to design the program so that project-related change can be measured;
- objectives are poorly formulated and not obviously related to detecting project-related change;
- means of achieving the objectives are not rigorously or consistently described;
- specific boundaries for monitoring have not been identified;
- no clear definition of the indicators to be monitored;
- no definition of triggers or critical thresholds for management decision-making; and no description of contingency measures available;
- no description of how collected data will be analyzed, or how the results of monitoring will inform management;
- sensitive and vulnerable populations of some ungulates have apparently been omitted from the monitoring work being undertaken. These include the Shazah Pass goat population, the Johnson Range sheep population (which is believed to migrate twice a year across the proposed road route), and sheep populations on Focus and O'Keefe Mountains. [28]

Another deficiency in monitoring animal populations over the lifetime of the project was observed by independent experts who made submissions to the project committee. An essential element, according to Frid, of discriminating project-related change from natural variation is the establishment of control (or reference) populations which also need to be

monitored.[29] This key component, control populations, are not currently included as part of the ungulate program.

Subsequent to the *Project Certificate* being issued, we had MELP's proposed ungulate monitoring program evaluated by an independent expert in the field. Dr. Francois Messier's review (see attached) corroborated our concerns, and concluded that details were lacking to the point where the program could not even be evaluated for its scientific merit:

"It is my professional judgement that the proposed monitoring plan does not contain the level of detail to evaluate its scientific merit. The lack of controls and low sample sizes in the study design are major problems. I cannot see how this monitoring plan can detect project-related impacts, and how results can be use to develop effective mitigation measures." [30]

6.2 GRIZZLY BEAR MONITORING PROGRAM

Though developed to a higher degree of detail than the ungulates monitoring program, the grizzly monitoring program proposed at the time of project approval suffers from four deficiencies.

First, the plan describes a 2-phase program. The first phase of data collection is to last for approximately 2 years to correspond with the grizzly cumulative effects assessment. It is clear from the description provided that the monitoring techniques that will be employed are not yet demonstrated to be effective and that some experimentation and field research will be required to more precisely shape the long-term monitoring work that will follow after year 2 of the study. Thus, there is uncertainty about how well the program will work.

Second, the first few years are involved with upgrading the baseline studies to a useful degree. It is not clear whether an adequate baseline (and the plan notes the challenge of doing this) can be assembled before project-related changes might start to affect grizzly numbers or behaviour. To our knowledge no collection of baseline data was undertaken in 1999—interviews and reconnaissance work for planning the project was still underway. No information or analysis has yet been provided to assist us.

Third, the plan notes that some of the monitoring approaches, such as incidental observations, are exceedingly tricky to incorporate usefully into a meaningful interpretation. It is simply not as straightforward, as the proponent has asserted, to assume that observations made by truck drivers along the route can be used in any reliable interpretation of events.

29 *An Evaluation of Wildlife Research Related to the Tulsequah Chief Mine*. Alejandro Frid, Boreal Research Associates. October, 1997.

30 Report of Francois Messier. November 21, 1999.

The remaining important observation is that it will be at least two years after the project has commenced before we have any notion of whether the project is having impacts on grizzly bear populations in the area. For some effects, such as habitat displacement or behavioural changes, there are no known mitigation measures that could be instituted.

6.3 CONCLUSIONS ABOUT MONITORING

In recommending the final route for the proposed route, great reliance has been placed by the proponent and MELP on monitoring as an effective tool for the mitigation of wildlife impacts. This has allowed them to make recommendations supporting routes or realignments which are demonstrably more harmful to wildlife relative to other routes.

Quite apart from the deficiencies of the programs themselves, such reliance on monitoring is misplaced—if for no other reason than, at some point, appropriate management action might be required. Very little thought has been given to how the results of the monitoring programs will be used by managers in the event that project-caused impacts are detected. There is no description of the management system that will be in place to perform this function. Indeed, there is no assessment of whether or not management action will even be possible in some circumstances.

What kinds of adaptive strategies are there to deal with impacts such as, for example, habitat displacement of mountain goat? Or population declines of grizzly? There are none. If such effects occur, many of them will be irreversible and essentially unfixable. The monitoring program may tell us that such effects are happening, but there simply will be no way of mitigating them.

This situation is a legacy of the environmental review which failed to address such issues. Many of these issues may have been resolvable through proper assessment and proper design of the means of access to the mine, but this has not been carried out, and has been left to the SUP review to formulate appropriate solutions. This will be challenging for the District Manager.

The District Manager must first satisfy himself that the monitoring programs being implemented will be up to the required task. Monitoring is only as effective as the design of the program to detect project-related changes harmful to wildlife, and as the effort invested in collecting the required information.

Then, the District Manager must be satisfied that there exists a management system that can process the data, formulate a management response, and implement a program of remedial measures to deal with detected problems. After all, the actual protection of the resources at risk is only as effective as the environmental management system put in place to

interpret and act upon the information generated by the monitoring program.

Given the evidence at hand with respect to the adequacy of the baseline information, the design of the monitoring programs, and the rather substantial uncertainties about the required management system, it is impossible to conclude that the District Manager can have any confidence in the regime being proposed to protect the sensitive and vulnerable wildlife resources put at risk by the road.

The problem facing the District Manager is not trivial. This is not a routine forest road application. At risk here is a huge tract of land of regional importance to the province, so far unaffected by the incursions of resource industries, and of undeniably strategic importance to the Taku Tlingit people who depend upon it and the continued viability of its wildlife populations. To make a decision in the face of all the uncertainties about potential effects of this project to the land, and to us, is not appropriate.

7. Alternate Routes and the Potential Effects to the Tlingit Land-based Way of Life

The exercise currently being undertaken by the District Manager—finalizing the alignment of the proposed road—ignores a number of fundamental issues about implications of the proposed route for the land and people to be affected. These are issues that were identified in the environmental review process, but were not resolved there—they have been left to the permitting stage and the District Manager to resolve.

The principal one relates to the potential effect of the alignment on the land-based interests of the Taku River Tlingit First Nation. The area to be accessed comprises the traditional territory of the Taku River Tlingit people. The territory and its biological productivity is essential to our land-based economy. It is covered by trails which link important resource harvesting grounds and culturally important sites such as villages, camps, fishing stations, spiritual places, and grave sites.

In finalizing the alignment, the MoF District Manager faces considerable challenges if this is to be accomplished in a way that protects existing and future resource and cultural values, and effectively mitigates adverse effects to Taku Tlingit people. There is, at this point in the SUP review, no evidence that these things are being considered.

The key attributes of this area that must be protected include the abundance and diversity of large animals, the remoteness of the area from large human populations, its lack of access to others, and the undisturbed nature of the landscape. It does not seem possible, on the basis of the work performed to date by the Technical Working Group, that the *Special Use Permit* can achieve such objectives.

For example, finalizing the route from the Silver Salmon valley north into Wilson and Spruce Creeks will pose significant risk to the interests of the Taku Tlingit people. During the environmental assessment, several reports were prepared that describe this risk. The main documents were prepared by John Dewhirst for Redfern, and by Lindsay Staples for the EAO, and the District Manager has access to these. The reports share the following findings:

- the road will run through the Spruce/Wilson Creek area (Blue Canyon), an area of special significance to the Tlingits as a resource harvesting area;
- the increased competition and depletion of animal populations are very significant impacts to the Tlingit household economy.

Staples provided additional detail in his evaluation of the probable road effects and their potential for mitigation:

- a substantial portion of the contemporary Tlingit domestic economy is based on active production from the land to be affected by the road;
- past mining activity, mostly placer, around Atlin has already resulted in adjustments to Tlingit land use and in significant declines of animal populations and habitat;
- the new road will further impose serious impacts upon resources utilized by Tlingit harvesters as well as significant interference with land use activities and cultural pursuits;
- the province, the proponent, and the Tlingits are not adequately prepared to handle the predicted impacts, and no meaningful mitigation or compensation measures are in place;
- given the absence of a treaty with the Crown, the Tlingits have little certainty and only limited control over how the proposed development will affect their traditional use of their territory and their rights associated with this use;
- any benefits from the project to the Tlingits will be marginal and of short duration; the road will preclude the substantial opportunities presently available to the Tlingits in shaping their own visions for land use and treaty settlement;
- managing the economic benefits and negative environmental and social effects of the road and related developments will require unprecedented and special institutional arrangements between the TRTFN, the Province and Redfern.

Given the absence of a treaty, Staples laid out the following pre-conditions that could assist in reducing impacts of the road to the Tlingit people:

- the negotiation of interim measures at the treaty table to deal with treaty-specific impacts;
- establishment of a special management area for the road corridor that would be co-managed by the province and the Tlingit;
- establishment of a road authority as a delegated body with jurisdiction over all issues associated with management of the road;
- ownership of the road by the Tlingits financed through operator user fees;
- creation of a Tlingit impacts monitoring agency;
- establishment of a sustainable futures fund funded jointly by the province and the proponent to assist the Tlingits and the community for “adjustment initiatives” during and following closure of the project;
- establishment of a harvesting support fund and program for Tlingit harvesters.

None of the measures identified above by Staples have been set in place, nor has there been any effective process established among the parties about how they might be implemented.

The *EAO Recommendations Report* acknowledged Staples’ conclusion that,

“the project poses a great degree of uncertainty and risk to traditional land uses of the TRTFN, to social stability and to the future well-being of the TRTFN culture.” [p.71]

How did the *EAO Recommendations Report* deal with this unsettling finding? No recommendations about how to mitigate any of the specific problems were identified. Instead, the *Report* merely noted that these issues had become “the subject of correspondence, meetings, and bilateral negotiations between BC and the TRTFN which are ongoing.” The *Report* used these talks as a way to avoid addressing them in the assessment process.

Talks did take place, but not one of the above items was resolved. As a result, the situation today remains unchanged from what it was at the time of the original development application, and remain squarely before the District Manager in approving the final alignment for the proposed road. The only indication we have that the District Manager has considered these issues is the report prepared internally by MoF, and discussed in the following section.

7.1 THE MOF REVIEW OF TRTFN ISSUES

To assist in the SUP review, the District Manager had an internal review of Tlingit issues conducted.^[31] This report identifies two main issues:

- potential problems associated with increased access and hunting pressure in Wilson/Spruce Creek areas; and,
- conflicts of the road with the Nakina heritage trail.

The report does not resolve these issues, and makes no recommendation to the District Manager about how they might be handled in the SUP.

With respect to the first issue, the report notes the existence of an *Access Management Plan*, as well as “extra monitoring and enforcement efforts”, but says nothing about whether these are expected to adequately mitigate the impacts. The report notes that,

“the Crown has made numerous attempts to consult and involve the TRTFN in negotiations to help manage the issues that may be considered as potential for rights and title.” [p.4]

Besides being incomprehensible, this statement implies that the non-resolution of the issue is due to TRTFN’s decision not to participate in the negotiations, or not to participate in a proposed joint management committee. The issue is resolved in the report by the simplistic observation that, “the TRTFN are still welcome to join in negotiations towards creating a Joint Management Committee.”

Let us be very clear on this point. TRTFN has repeatedly told government officials and Redfern that we have two overriding concerns about this project. These are the protection of land for use by fish and wildlife, and for use by our people.

All our effort, and all our participation in the environmental review and, now, the SUP process, has been directed at attempting to ensure that, somehow, these concerns would be properly dealt with. We have not been able to achieve this. Instead, we are being constantly asked to participate in the finer details of project design while the substantive issues of sustainability go unaddressed. The result is that the government and Redfern keep ducking the major issues, and still these important problems are not solved. The result is that there will be no effective strategy to protect the wildlife, or our way of life.

This is exceedingly frustrating, since we are constantly having to explain why we do not participate more fully in BC’s process. Without the large questions being properly resolved, there is no meaningful basis for us to participate.

31 *Assessment of the TRTFN Issues, Impacts and Mitigation Efforts*. Rick Braam, Tenures Officer. January 6, 1998.

Continual invitations to join committees, and make comment on the details, are simply invitations to participate in the effective demise of both the wildlife and our land-based way of life. These issues need to be addressed first, so that we can participate in a meaningful way in resolving the finer details that need to be worked out.

With respect to MoF's comments on the Nakina trail—the report states that “the road has been engineered and re-engineered to ensure that there will be minimal impact to the trail.” This is incorrect. At the time the report was written, there was only a single alignment proposed, and it was located solely on the basis of engineering criteria. Subsequent field appraisal in 1999 has shown that alternative routes are possible that would have result in a single crossing of the trail. However, the Technical Working Group has since recommended rejection of most of this re-alignment on engineering grounds, in favour of the originally proposed segment that crosses the trail at least four times over this particular section.

The report notes that an archaeological impact assessment will be required if the road is relocated and that, in any event, access and use of the trail will not be affected by the road—only the “general spirit tie to area of the trail and the land itself.” As explained above in regards to impacts of the road on the trail, the conclusion that use of the trail will not be affected by road is nonsense. Further, no recommendations are made on this issue to guide the SUP review or approval. The potential conflict between the use of the trail and the proposed road remains unresolved.

Several other concerns are identified in point form—no substantive analysis or recommendations for effective mitigation are provided. As a result, the contribution of this report to the SUP review is unclear.

8. Conclusions & Recommendations

The proposed revisions to the alignment do not address any of the substantive issues relating to the potential impacts to sustainable uses of the land by wildlife and the Taku Tlingit people. These were not resolved as part of the environmental review, and have not been addressed as part of the SUP review. Instead of addressing these serious issues, British Columbia is engaged in an exercise of fine-tuning site-specific details, when it is clear that these will not resolve the major issues.

As a result, there is no meaningful basis on which we can participate in a process which so endangers the wildlife resources and the Tlingit land-based way of life.

The entire road runs through a landscape which has been used by Taku Tlingit people for countless generations. There is an enormous continuing reliance on this territory today by our people, and we expect this to continue for along time into the future. Of our rights and title to the

territory, there is no dispute. Neither Redfern nor British Columbia have taken a position to the contrary.

We have continually suggested to BC that they should be dealing with the TRTFN on the basis that we have aboriginal rights and title to the area. The government's fiduciary obligations are engaged here, even though the specific details of title and rights have not been acknowledged by government, or proven in court.

Our review of the SUP process to date has found that the following issues, which should have been resolved by this point, remain:

- no viable demonstrated plan has been proposed for controlling access to the affected area; all the evidence argues that controlled access is not effective at mitigating wildlife impacts;
- baseline data are incomplete for impact assessment;
- baseline data are incomplete for wildlife monitoring;
- no coordinated plan for wildlife studies;
- the design of the proposed ungulates monitoring program is not adequate;
- the grizzly monitoring program is highly unlikely to deliver useful results until near the end of the project and after impacts have already occurred;
- there are no management or mitigation measures identified that are known to be effective in the event that the monitoring programs do detect adverse project-related change;
- there are no proposed measures to address impacts to Taku Tlingit land-based way of life, in fact BC wants to restrict our land use and aboriginal harvesting rights;
- environmentally least harmful routes have been rejected in the route selection process;
- socio-economically and culturally least harmful routes have been rejected;
- there are no commitments by British Columbia to allocate the resources required to properly implement any of the measures that they have proposed, or that otherwise might be necessary.

As a consequence, the District Manager should find that finalization of the route at this time is accompanied by such a high degree of uncertainty about the nature of the adverse consequences that are likely to result, that the route cannot be properly approved at this time. He should also find that the capability of the proposed management regime to effectively mitigate adverse conditions is clearly not adequate.

The District Manager should also recognize that the application under review is of regional and strategic importance, and the issues arising from this are far from routine or trivial. They demand, and so far have not received, substantive treatment and resolution if this project is to proceed in a responsible manner. To finalize the route is premature, and would foreclose many improvements for the protection of environmental resources and the cultural and economic sustainability of the Taku Tlingit people that otherwise could be made.

The process is relying on the District Manager to act responsibly, which is to squarely address the serious issues which have not been properly dealt with by Redfern or the EAO, and make the appropriate recommendations required to solve the fundamental problems.

It is our position that the District Manager should not finalize the alignment until he is satisfied that the following conditions have been met:

- an accurate baseline for wildlife and wildlife habitat has been developed, as was prescribed for the environmental assessment;
- selection of a route or means of accessing the mine that will be sustainable with the necessary degree of confidence in regard to wildlife and the Taku Tlingit land-based way of life;
- an accurate picture of how the project and the access route is likely to change the wildlife baseline;
- effective wildlife monitoring programs have been designed;
- effective access management strategies are in place;
- effective mitigation measures are identified;
- a commitment by British Columbia to fund the necessary monitoring, mitigation, and environmental management is provided;
- meaningful arrangements for the involvement of the TRTFN in managing the access and environmental issues related to the project have been negotiated among the parties.

If these conditions were established, there would then be a place for the meaningful participation of the Taku River Tlingit First Nation in the process.

Signed:

_____ for Taku River Tlingit First Nation

Attachments

1. Map #1 – Alternate Routes – Nakina Trail
2. Report by Ken Farquharson, P.Eng.
3. Report by Dr. Francois Messier
4. Report by Dr. David Shackleton
5. Report by Dr. Brian Horesji