# LAND USE, EXPLORATION AND THE MINERAL INDUSTRY IN NORTHWEST BRITISH COLUMBIA - A STRATEGIC APPROACH

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## ABSTRACT

Northwest B.C. is unusually endowed with mineral potential and deposits. In spite of this the area is presently underexplored. Pressures from land use uncertainty, coupled with a fundamentally changed financial structure for venture capital financing, have combined to keep exploration expenditures in the region at low levels.

Strategic, long-term approaches to land use issues are proposed for the mineral industry segment which chooses to remain in B.C. The promise of the Commission on Resources and Environment is highlighted and a strategy base is outlined which emphasizes the importance of the primary industries to hinterland communities in the northwest.

Industry-wide pro-activity is strongly advocated as an important strategic element.

# INTRODUCTION

The purpose of this paper is to strongly recommend to the members of the mineral industry actively involved in British Columbia that they seriously consider the changing climate for mineral exploration and development in both the Province and North America as an opportunity to re-assess some assumptions, and use this climate of change to take a pro-active approach to some of the short and long term problems the industry faces. Emphasis in the discussion following is on the northwest region of the province.

One important result of a pro-active, industry-wide approach would be development, over time, of a public perception of the mineral industry as helpful, visible, contributive and cooperative. These attributes are deemed essential for the coming decade.

## The New Climate:

An overview of the actions of the Provincial government since Christmas, will clarify the policy direction being taken.

January 21st, 1992

Announcement of the Commission on Resources and Environment, (CORE) headed by Stephen Owen. The Commission is charged with designing regionally-based land use processes, and recommending consensus-based dispute resolution processes.

April 1st, 1992

Announcement of the Resources Compensation Commission, headed by Dr. Richard Schwindt, is now accepting submissions. Its work will be completed by June 30th this year. The intention of the government to introduce legislation was announced at this time.

The Commission will recommend methods/principles for compensation where mineral or timber extraction rights are removed from the current tenure holder and returned to the province. This is seen as a key part of the government's strategy for moving to sustainable development and to ensure that provincial resources can be made available to First Nations at the end of Treaty Negotiations.

May, 1992

The government introduces Bill C-32 which freezes all compensation arrangements with the province until the Schwindt Commission reports and new legislation can be drafted.

The mineral industry has strongly reacted, along with the forest sector.

May 5th, 1992

The Protected Areas Strategy was announced by Ministers of Forests and Environment, Lands and Parks as the outcome of the Parks and Wilderness '90 public consultation process through 1991. This Strategy, coupled with the mandate of CORE, will allow an assessment process and timetable for reviewing 184 study areas for possible removal from active industrial use.

## The Cumulative Effect:

These four initiatives together "give the government the range of options required to look at balancing environmental and economic concerns effectively, while decisions on long term land use planning are made", to use the language in government documents.

What would appear to be lacking is strategic thinking about the potential impact on the investment climate in the province and the level of unease in the business community is apparently high and rising.

The government is in the uncomfortable position of having to recognize the importance of mining to the economy while at the same time being all too aware of opposition to it from a significant and effective sector of the population.

The hope for all -- for the public, industry and government -- lies in process. Specifically, in the land use planning process designed through the Owen Commission. It is through participation in this regional planning exercise that the mineral industry stands to make great gains in understanding among other participating stakeholders in the consensus-based decision-making on land use and in developing assurance about what the future land use directions are for British Columbia.

The long-term strategic prescription proposed is increased mineral industry pro-activity, beginning in the near-term with CORE which presents a unique opportunity for application of modest resources for long-term benefit.

## THE NORTHWEST'S MINERAL ENDOWMENT AND THE RANGE OF LAND USE DESIGNATIONS

The northwest has significant mineral endowment. The variety of identified mineral deposits includes bulk deposits for base and precious metals, precious metals deposits as veins and shears, skarns, volcanogenic massive sulphides and others. There are world class mines in the region, which include the soon to close Bell copper mine, the Endako molybdenum mine, the Equity Silver copper silver mine and the underutilized Cassiar asbestos mine. There is also the celebrated world class copper deposit in the extreme northwest -- the Windy Craggy massive sulphide bodies with their vast copper reserves.

The northwest is also an area where many tens of localities, in a variety of land use designations, are under consideration and pressure to become alienated from the mineral exploration landbase.

Lands subject to formal designation as wilderness under the Forest Act are included as potentially alienated. These lands, theoretically available to mineral exploration, are in fact likely to remain largely unexplored because explorationists recognize the political hazards of being labelled as "defilers of wilderness" and will avoid committing high risk exploration funds under such uncertain conditions.

## ASSERTIONS AND ASSUMPTIONS

Some assumptions should be stated to set the stage for the points which follow.

*1. Land use issues are increasingly driving exploration decisions in British Columbia; in some areas they are the major driving force.*

*2. Northwest BC holds the spotlight - it has the greatest prominence in the province-wide exploration agenda.*

This is because of the great extent, variety and value of the mineral resources.

In this context, the remoteness of the established and emerging exploration areas allows for easy manipulation of the urban populations' perceptions about mineral resource issues. There is a real lack of acquaintance with the scale of the country; with the base level for the relative merits of the resources values debates.

For example, few British Columbians are aware that the Windy Craggy deposit is about 20 kilometres from the Tatshenshini River and it is certain that fewer Torontonians know this. Fewer still are aware that the rocks which enclose the deposit have significant acid consuming capacity. The glacially broken fragments of limestone and limey sediments which line the valleys are capable of absorbing acidic fluids from oxidizing sulphides.

This is not to dismiss the significance of the potential for acid generation, nor the importance of the issue of dissolved metals in acidic waters, nor the beauty of the Tats and its tourism and recreation value. Nor is it intended to diminish the laudable aim of government agencies to control emissions at source, rather than ameliorate effects downstream.

It does raise the floor level of the arena for debate, however. These two salient features associated with the Windy Craggy deposit are not emphasized by those opposed to development of any kind in the area, but their dissemination is important and largely the responsibility of the mineral industry.

*3. The strength of the mineral endowment justifies increased exploration attention in the northwest and commitment to the up-coming regional planning process.*

The mineral values are clearly very significant and must be accommodated in the regional land use plan.

## AN INDUSTRY MYTH

Within the mineral industry there is, one could strongly perceive, general resistance to ALL land set-asides, and especially to the establishment of large parks. Indeed, resistance and a reactive stance have characterized much political activity initiated by the industry. It has not been effective in persuading governments and the broader public of the worth of the industry, and the ultimate importance of the exploration and mining activity to the province.

In stating this, it must also be clearly acknowledged that individual companies have taken a first-rate approach to informing communities affected by their activities, and taking the communities concerns into account long before the project was of such a scale that such actions were required by regulation.

This apparent general industry choice of a reactive stance is understandable, however, from within an extremely conservative money flow regime, where dollars are invested at high risk - the traditional situation for mineral explorers. This is in contrast, for example, to the availability of funds for pro-activity in the oil and gas industry where the rates of return on exploration and capital investment greatly exceed the figures from the mining industry.

Nevertheless, the traditional mineral industry strategy of resistance to park establishment, despite its longevity and familiarity, is doomed to failure.

The people of British Columbia made it clear to numerous government consultation exercises, and especially the Parks & Wilderness '90 process, that they want more parks - more set-aside lands. The present government has agreed to this and instructed the Owen Commission to generate a land use plan for British Columbia which will establish preserved lands at about 12-14% of the landbase. This figure represents an increase of up to seven percent from the present provincial situation, and is in accord with the interpreted recommendations in the Brundtland Report, published in 1989 as Our Common Future.

It is easy to predict that in this climate mineral industry blanket resistance tp park formation has very low chances for success. It is therefore demoralizing to those who participate in the resistance and, extremely importantly, allows the public to further entrench the perception of an unhelpful, reactionary mineral industry.

## THE PRESENT "STATE OF THE WORLD"

The state of environmental politics for British Columbia provokes the following observations.

*1. The ecological imperative will drive land use issues for the foreseeable future.*

British Columbia, and particularly communities in the northwest, has high numbers of biologically attuned residents who are willing to comment and act based on a high level of biological and ecological sophistication. Ecologically sound management at the watershed level is demanded by participants in local planning processes. Biodiversity, while a rapidly expanding area of professional expertise and interest, is understood conceptually by a wide variety of planning process participants.

*2. There will be new, and some large, parks established in British Columbia in the near term.*

*3. These parks will be confirmed through a regional land use planning process established and overseen by the Owen Commission; a regional process that will be in place in less than two years.*

The CORE Commission represents a tremendous opportunity for the industry in general and particularly for those within it committed to the northwestern regions, to contribute to the development of an imminent regional plan which incorporates the realities of the exploration and mining industries. The Province is to have about ten regional planning exercises which collectively will define the land use plan for the Province, once adopted by Cabinet.

All interests in this consensus-driven planning process will be represented at the table. The industry will participate in constructing a land use plan and in doing so, reap the rewards of realism, practicality and dramatically increased certainty of land use planning.

The mineral industry seats should be occupied by well supported, prepared, committed, preferably field active people, who are resident or working in the subject region and are determined to stay the course of regional planning. They should thoroughly understand the nature of the process.

For the whole province about twenty mineral industry representatives, plainly and solidly supported by the whole industry, will operate in the consensus-driven, problem-solving atmosphere. They will have equal weight in the debate with all other stakeholders.

This is not a strength in numbers game; consensus allows all values to be heard and with equal weight of value. It is confidently predicted that there will be high returns to the long term interests of the mineral industry for the dollars and time invested. It behooves the industry to collectively identify suitable participants, and where necessary, facilitate training in consensus process. Preparation for this regional activity should commence immediately because the consequences for effective participation are so significant.

*4. The present apparent "zero-tolerance " for mineral development will not last.*

Embodied in this final assertion are some obvious elements: "The bills must be paid"; people in tough economic times are not disposed to wait around for total economic breakdown - they want some action, and in hinterland communities, that does not mean relying heavily on tourism dollars.

The mineral industry committed to operating in BC should therefor position for the next upward trend in circumstances, and do so in a thoughtful, pro-active way, couched in an overall long-term strategic framework.

## THE PROMISE OF TOURISM IN THE NORTHWEST

Some recent information produced for the BC Forest Resources Commission addresses important issues for the health of hinterland communities^. The great majority of these communities are strongly dependent on basic industries, namely; forestry, mining, agriculture, fishing and trapping, as well as (for the purposes of this study) accommodation and food services, unemployment income and pension income. What is especially important is that this study examined not where people spend their dollars, (the basis for studies produced for tourism interests) but the source of their income.

[1] FINAL REPORT, British Columbia Community Employment Dependencies. Prepared for the British Columbia Forest Resources Commission by Gary Home, Charlotte Penner; Planning and Statistics Division, Ministry of Finance and Corporate Relations, February, 1992.

The report includes the methodologies by which figures were derived. In short, it is based on 1986 Income Tax Return occupation information, adjusted through Canada Employment and Immigration 1990 regional employment figures. These figure were combined with estimated average weekly earnings in the various employment sectors to derive total income by sector. Basic activity is fueled by demand from outside the local area, non-basic serves only the residents of the community.

# Basic Industry Dependence

| % of Basic Industry | FOR | MIN | F&T | AC | AFS | OTH |
|---|---|---|---|---|---|---|
| EAST KOOTENAY | | | | | | |
| Ferule Area | 21 | 67 | 0 | 3 | 8 | 1 |
| Cranbrook-Kimberley Area | 57 | 7 | 0 | 7 | 19 | 10 |
| lavermere Are* | 57 | 6 | 0 | 8 | 28 | 0 |
| CENTRAL KOOTENAY | | | | | | |
| CajUegar-Arrow Uikre Area | 75 | 2 | 0 | 2 | 9 | 12 |
| Creston Area | 35 | 6 | 0 | 25 | 11 | 24 |
| NeUon Area | 57 | 7 | 0 | 4 | 13 | 19 |
| Salmon Arm Area | 47 | 2 | 1 | 11 | 15 | 24 |
| Golden Area | 72 | 3 | 0 | 1 | 15 | 9 |
| Revtlstoke Area | 37 | 2 | 0 | 2 | 17 | 41 |
| OKANAGAN - BOUNDARY | | | | | | |
| Peachland Area | 32 | 18 | 0 | 25 | 10 | 15 |
| Kclowna Area | 20 | 7 | 0 | 24 | 16 | 32 |
| Grand Forks- Green wood Area | d5 | 6 | 0 | 8 | 8 | 13 |
| Trail-Rowland Area | 7 | 81 | 0 | 0 | 8 | 4 |
| Vernoo Area | 40 | 3 | 0 | 9 | 13 | 34 |
| Spallumcbeeo Area | 47 | 2 | 1 | 26 | 9 | 15 |
| Princeton Area | 44 | 43 | 0 | 3 | 8 | 1 |
| Oliver-Osoyoos Area | 12 | 5 | 1 | 50 | 11 | 20 |
| Penticton Area | 23 | 7 | 1 | 16 | 16 | 38 |
| LCLLOOET - THOMPSON | | | | | | |
| Squamish Area | 56 | 4 | 1 | 4 | 15 | 21 |
| Lillooet Area | 67 | 2 | 0 | 4 | 9 | 18 |
| Aihcroft Area | 28 | 28 | 1 | 15 | 9 | 19 |
| Merritt Area | 6X1 | 13 | 1 | 12 | 6 | 7 |
| Karaloops Area | 29 | 22 | 0 | 8 | 9 | 32 |
| North Thompson Area | 74 | 2 | 0 | 8 | 4 | 11 |
| CARIBOO - FORT GEORGE | | | | | | |
| Smitherj-Houtton Area | 67 | 12 | 0 | 5 | 6 | 10 |
| Bums Lake Area | 79 | 0 | 0 | 6 | 4 | 10 |
| Vuderhoof Area | 83 | 3 | 0 | 5 | 4 | 5 |
| William* Lake Area | 72 | 6 | [illegible] | 7 | 8 | 7 |
| Queinel Area | 77 | 2 | 0 | 6 | 6 | 9 |
| Prince George Area | 70 | 3 | 0 | 3 | 6 | 18 |
| McBride-Valemouat Area | 71 | 0 | 0 | 7 | 6 | 16 |

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*Figure 1*

Basic Income as a Fraction of Total Income

| | |
|---|---|
| **EAST KOOTENAY** | |
| Fernie Area | 56 |
| Cranbrook-Kimberley Area | 40 |
| Invermere Area | 54 |
| **CENTRAL KOOTENAY** | |
| Castlegar-Arrow Lakes Area | 56 |
| Creston Area | 55 |
| Nelson Area | 49 |
| Salmon Arm Area | 54 |
| Golden Area | 62 |
| Revelstoke Area | 52 |
| **OKANAGAN - BOUNDARY** | |
| Peachland Area | 40 |
| Kelowna Area | 41 |
| Grand Forks-Greenwood Area | 57 |
| Trail-Rossland Area | 55 |
| Vernon Area | 45 |
| Spallumcheen Area | 52 |
| Princeton Area | 62 |
| Oliver-Osoyoos Area | 53 |
| Penticton Area | 46 |
| **LILLOOET - THOMPSON** | |
| Squamish Area | 51 |
| Lillooet Area | 54 |
| Ashcroft Area | 61 |
| Merritt Area | 58 |
| Kamloops Area | 41 |
| North Thompson Area | 71 |
| **VANCOUVER ISLAND & COAST** | |
| Alberni Area | 59 |
| Gulf Islands Area | 45 |
| Victoria Area | 40 |
| Sooke-Port Renfrew Area | 48 |
| Courtenay-Comox Area | 45 |
| Campbell River Area | 56 |
| Bute Inlet Area | 54 |
| Duncan Area | 48 |
| Lake Cowichan Area | 60 |
| Ladysmith Area | 56 |
| Alert Bay Area | 52 |
| Port Hardy Area | 58 |
| Nanaimo Area | 39 |
| Parksville-Qualicum Area | 51 |
| **CARIBOO - FORT GEORGE** | |
| Smithers-Houston Area | 59 |
| Burns Lake Area | 59 |
| Vanderhoof Area | 62 |
| Williams Lake Area | 55 |
| Quesnel Area | 59 |
| Prince George Area | 48 |
| McBride-Valemount Area | 65 |
| **PEACE RIVER - STIKINE** | |
| Dawson Creek Area | 50 |
| Fort St. John Area | 46 |
| Fort Nelson Area | 47 |
| Ocean Falls Area | 60 |
| Kitimat-Terrace Area | 54 |
| Hazelton Area | 64 |
| Stewart Area | 56 |
| Queen Charlotte Islands Area | 59 |
| Prince Rupert Area | 55 |
| Stikine Area | 66 |

This table expresses income in the basic sectors as a percentage of the total income • both basic and nonbasic - in the community. Note that basic income is usually a smaller fraction of total income in highly-populated areas and areas that provide services to the surrounding environs. This is probably because the service sector is more developed in these regions.

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*Figure 2*

Attention is drawn to the Smithers-Houston study cell (see Figures 1 and 2, taken from the Community Employment Dependencies Report). Basic income in these communities accounted for 59% of all income. Forestry accounted for 56% of basic income, mining 10%, and the next largest contributors were pension income at 9%, unemployment income at 8%, and other income at 8% (which includes government administration and manufacturing). Accommodation and Food Services - the area for tourism related activities - contributed 5% and Agriculture accounted for 4%.

The report's findings suggest that, since by definition, all tourism activity resides in the basic income division, it is a very low contributor to income for the Smithers - Houston area.

The effects of tourism on the present economies of hinterland communities, has been largely exaggerated, it would appear and while the potential is enormous, the concentration of tourism related activities and income for British Columbia apparently resides in the Vancouver area. Tourism has no realistic chance of providing sufficient near-term economic cushioning to soften the effects of anticipated near-term lowered levels of logging activity.

The continued importance of the primary industries to British Columbia and the hinterland communities in particular is clear from the Forest Resources Commission Report on Community Income Dependencies.

## A STRATEGY BASE FOR THE B.C. MINERAL INDUSTRY

*1. There will be continued dependence on the primary industries, for the foreseeable future, however much it might be wished otherwise by large numbers of the population.*

*2. Timber harvesting is the dominant industry in the bulk of hinterland communities.*

*3. Timber harvesting levels will be reduced.*

Reductions in land base, reductions in level of cut, demands based on aesthetics, and ecological concerns for changes in harvesting practices all combine to indicate general reductions in traditional logging activities.

*4. Whether the standard of living is reduced or not, mineral industry exploration, development and production loom larger in importance.*

Given the preceding three points, the mineral industry and particularly the exploration sector, will play an important role in sustaining hinterland communities. Exploration dollars are important to the towns of the northwest. Year after year for the past decades, prospectors and geologists, drill crews and geophysicists have staged activities out of these communities with significant economic benefit to the local populations.

It is understandable that a government would not wish to "permit mining merely to generate revenue". However, the continued health of hinterland communities is to be partly assured through the encouragement of exploration and ultimately, environmentally acceptable mining.

Governments do not wish to be responsible for a further skewed population distribution in the province. The notion of a province which has extremely large urban populations, centered on Vancouver and Victoria, which make forays into barely functioning hinterland communities to pluck resources for manufacture and consumption - at whatever level of sustainability is then deemed desirable - is not likely to be as sustainable as a society which has numerous healthy, vibrant, towns and villages, peopled by skilled and effective loggers, miners, farmers and providers of tourist facilities.

## STRATEGY ARRAY FOR THE B.C. MINERAL INDUSTRY

With the foregoing as a long-term outlook and justification for action with solid potential for success, what is the array of adoptable strategies?

*1. Remain essentially reactive:*

The benefits are the low cost, and virtually all the budget goes into the ground.

- oppose land withdrawls, especially large parks ....

*2. Do nothing:*

The benefits are the extremely low cost, and all the budget goes into the ground.

- wait and hope that society "catches up" and "wises up"....

*3. Be pro-active:*

There is significant cost. Adjust budgets to allow for industry benefitting pro-activity at all layers of the industry, especially exploration.

As a caution to dismissal of this last option, there will probably be a "world standard" for mineral development sooner rather than later. Going "elsewhere" is not always going to be an easy option.

The industry in B.C. can point to high production efficiency and environmental compliance along with extremely high standards for workers in all industry layers. The B.C. industry is doing its share for the country and the world but has not effectively told enough other people in ways that have effect and benefit.

It is not up to just the two people in B.C. paid to act on behalf of the whole industry in land use and environmental matters. It is a responsibility all industry members share.

## RECOMMENDATIONS

1. Pursue strong, effective and cooperative involvement in the regional planning process for British Columbia.

2. Commit at least 1% of all exploration budgets to industry-benefitting pro-activity.

This would allow, at the least for example, salary time for project leaders to have discussions with permitting agency staff prior to, and after completion of projects.

In other words, it is time for this pro-activity line to become a standard entry in budget preparation just as we have become used to including a line for "reclamation".

3. Contribute to industry co-ordinated pro-activity.

An example of this would be collaborate preparation of a low-mineral potential map for the province which could be used in the decisions about parks and wilderness. Despite the inherent risks, it is a justified approach. It would place the industry in front as a leader in the land use debate.